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ABSTRACTS

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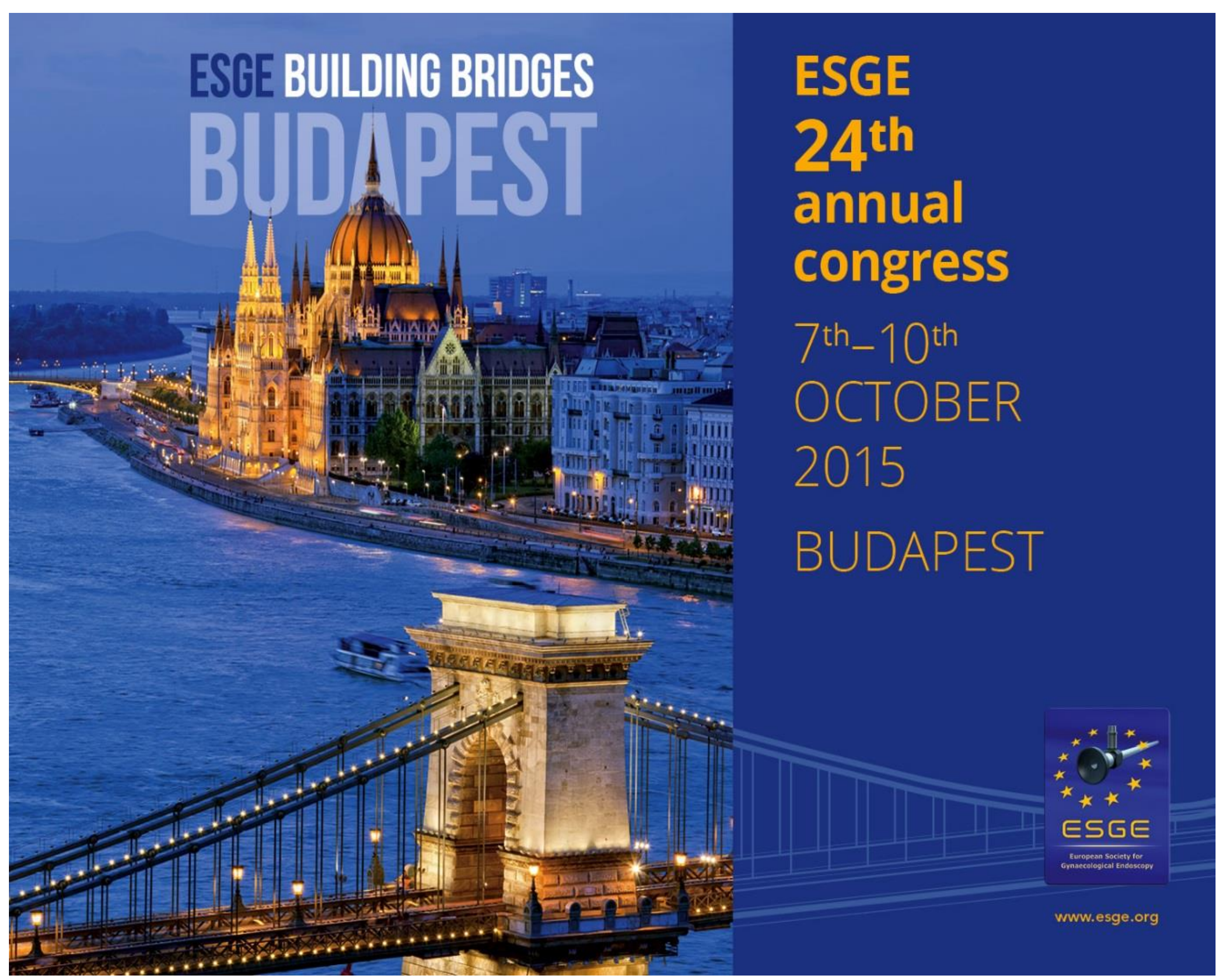

SELECTED ABSTRACTS FOR ORAL PRESENTATION (40)

ES24-0333
BSA1

Complications After Abdominal, Vaginal and Laparoscopic Hysterectomy - Results From the Danish Hysterectomy Database (Dhd) 2003-2011.

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Background

To evaluate and compare the complication rates for the different methods used for hysterectomy performed for benign diagnoses.

Methods

The DHD was established in 2003. Every department in Denmark, public as well as private, register all diagnoses, operations and co-operations in the National Patient Registry (NPR). In relation to the NPR every patients are registered with a unique ten-digit number that follows each person throughout life. Detailed information about patient related characteristics, details about different specific operation methods and use of antibiotics, thrombotic prophylactics and tranexamic acid are registered directly in the NPR. Furthermore, any readmission, reoperations or complications, are also registered in NPR, so there are no losses to follow-up. Every year, each department make a local audit of their registered complications, and a larger validation study are currently ongoing in 2015.

Results

In 2011 data were extracted for the six different subgroups of hysterectomy: Total abdominal TAH, subtotal abdominal SAH, vaginal VH for prolapse, vaginal VH without prolapse, laparoscopic LH and laparoscopic assisted vaginal LAVH. Overall the complication rates were 21%, 20%, 11%, 14%, 13%, 19%, respectively. In addition, the complications were subdivided into bleeding complications, surgical infections, organ lesions, re-admissions, and others. Validation have shown that the last group is an erroneous overestimat, as the NPR cannot differentiate between an indication and a complication diagnoses in the same admission, for example abdominal pain.
Multivariate logistic regression analyses were performed comparing the 3 general groups comprising15.628 TAH+SAH, 9286 VH without prolapse, and 1729 LH+LAVH. In these 3 groups, bleeding were seen after 8%, 7%, 5%, respectively. Organlesions were seen in 2%, 1%, 1%, respectively. Reoperations were performed in 5%, 4%, 3%, respectively. There were significantly less bleeding, infections and organ lesions, as well as less reoperations and shorter hospitalization after the laparoscopic and vaginal methods, compared to the abdominal, when controlled for age, calendar year, indication, uterus weight, comorbidity, adhesiolysis, smoking, alcohol, trombosisprophylaxsis, antibioticprophylaxsis, and duration of surgery. The vaginal and laparoscopic methods however, were not significantly different.

Conclusions

The evidence-based differences between the various methods of hysterectomy from randomised clinical trials and meta-analysis, are confirmed in this nationwide prospective cohort study, favouring the vaginal and laparoscopic approaches. The overall complication rate though, might be overestimated due to registration in the NPR that also monitor the hospitals productivity. Validation and data from 2003-2014 are currently being analysed.

ES24-0079
BSA1

Selection of Case-mix Variables and Predictors of Clinical Outcomes of Laparoscopic Hysterectomy: a Systematic Review.

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Background

The assessment of surgical quality is complex. The main problem of the introduced quality indicators is the lack of case-mix correction. The aim of this study is to give an overview of all available studies reporting on predictors or associations between patient characteristics and surgical outcomes for laparoscopic hysterectomy (LH). Additionally a set of potential case-mix characteristics for the LH was identified. This set could be used in the development of new accurate quality indicators and assessment tools.

Methods

A literature search was performed through PubMed and EMBASE up to April 2015.

To find original articles describing an association between patient characteristics and clinical outcomes of LH, the words ''laparoscopy'' and ''hysterectomy'' (and all synonyms) were combined with possible surgical outcomes and patient characteristics (such as uterus weight, BMI, age, adhesions etc.). Furthermore, the terms "predictor(s)'', ''forecasting'', ''time factors'', ''risk factor(s)" or ''outcome(assessment)" were used. As surgical outcomes were included intra-operative blood loss, operative time, conversion and complications.

Results

A total of 1427 unique references were found. Finally 81 articles were considered eligible for this study. Uterus weight and BMI are the most mentioned patient characteristics influencing all surgical outcomes and mentioned respectively 77 and 41 times in the selected papers. Subsequently, previous operations and adhesions are also considered as potential predictors, mentioned respectively 16 and 12 times. Furthermore, several patient characteristics are only mentioned a few times or even once: age, parity, endometriosis, uterus descent, menopause, myoma, race, previous stroke/TIA, smoking, diabetes mellitus, ASA score, creatinine serum and platelet count.
The most important predictors for a longer operative time are BMI≥30 kg/m² and uterus weight ≥ 500 grams. Previous operations and adhesions are also considered as a potential predictor, mentioned in 6 studies. Regarding the outcome of more blood loss, the greatest association was also found with uterus weight ≥ 500 grams and BMI ≥30 kg/m². In addition adhesions seems to have an impact on blood loss. For the surgical outcome complications, the found patient characteristics are slightly spread and BMI, uterus weight and previous operations predominate. This also applies for the outcome conversion.

Conclusions

For future development of quality indicators of LH and in order to correctly compare surgical outcomes a case-mix correction is needed for at least uterus weight and BMI. A potential case-mix correction for adhesions and previous operations can be considered. For both surgeon and patient it is valuable to be aware of potential factors predicting worse clinical outcomes and to anticipate on this. Finally, to benchmark clinical outcomes it is of high importance to use uniform definitions at international level.

ES24-0387
BSA1

Incidence and Impact of Port-site Metastasis After Diagnostic Laparoscopy for Epithelial Ovarian Cancer

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Background

To evaluate the incidence and prognostic impact of port-site metastasis (PSM) in patients with epithelial ovarian cancer (EOC) undergoing laparoscopy (LC) prior to subsequent debulking surgery (DS).

Methods

All consecutive patients treated in our centre 2000-2014 and had a LC followed by primary DS were extracted from our prospectively maintained tumor registry. . Patients with histological examination of the port sites, which was performed routinely in our centre following LC, were included into this exploratory analyses. Survival analyses were calculated using Kaplan-Meier method and Cox regression models.

Results

250 (25.5%) of 982 patients treated with upfront surgery underwent LC prior to DS. Port-site resection was performed in 214 (85.6%) of these 250 patients. Median intervall between LC and DS was 22 days (range 2-120). We found PSM in 100 of 214 patients (46.7%) who had undergone prior LC. Risk factors for PSM were pT3c-stage compared to lower pT-classes (OR 29, 95%CI 6.50-130; $p<0.001$), pN1-status versus pN0 (OR 2.45, 95%CI 1.03-5.77; $p=0.041$), and ascites >500mL (OR 6.46, 95%CI 2.47-17; $p<0.001$). Multivariate analysis showed no survival difference between patients with and without PSM (HR 0.76, 95%CI 0.39-1.48; $p=0.417$). Independent prognosticators for OS were pT-stage, residual tumor, and presence of pleural effusion.

Conclusions

The incidence of PSM after LC in EOC patients is considerably high. Regarding the prognostic impact of residual tumor on OS excizision of PSM should be performed in patients if hereby complete tumor resection can be achieved. PSM doesn´t seem to have a negative prognostic impact. However, the additional surgical burden and postoperative morbidity of patients with large port-site exzision is serious and should be considered before LC.

ES24-0322
BSA1

The Safety of Prophylactic Salpingectomy During Hysterectomy

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Background

At international conferences, debates do not cease on the advisability of prophylactic salpingectomy during hysterectomy. Some authors suggest bilateral salpingectomy in cases of ovary preservation as a preventive strategy in a group of patients with a low risk of ovarian cancer, but these suggestions still need full assessment of the effectiveness and possible complications of the procedure.

Methods

Since 2012, 54 patients were included in the study and after preliminary randomization they underwent laparoscopic hysterectomy with ovarian preservation together with or without salpingectomy. Group I consisted of 29 patients who underwent hysterectomy with salpingectomy, group II consisted of 25 patients who underwent hysterectomy without salpingo-oophorectomy. The patients were checked twice: prehospital and 3-4 months after surgery. All patients had a check for LH, FSH, AMH, estradiol and testosterone level, ultrasound examination of the pelvic organs with a Doppler scan of ovarian blood flow and ovarian artery blood flow, SF-36 questionnaire and a visual analog pain scale. The surgery was performed under endotracheal anesthesia using standard laparoscopic instruments.

Results

The patients' average age in the group I was 44, in group II - 45 years. The patients' average body mass index was: group I - 25,4, group II - 27,12 ($p = 0,449$). As for the operation time, there was no significant difference in both groups: group I – 115,5 minutes, group II – 99, 2 minutes ($p = 0,413$). Average blood loss was: group I - 127 ml, group II - 126 ml ($p = 0,723$). Also there was no significant difference in the level of hormones: AMH ($p = 0,768$), FSH ($p = 0,768$), estradiol ($p = 0,909$), testosterone ($p = 0,677$) and LH ($p = 0,567$). In both groups according to the SF-36 questionnaire there was an improvement in both physical and mental health and there was no significant difference in the groups ($p = 0,959$ and $p = 0,390$ respectively). Assessment of pain also revealed no significant difference in the groups ($p = 0,958$). In assessing the peak systolic flow velocity (ΔPSF) no statistical difference was shown in ovarian artery: group I - 2,01, group II - 2,77 ($p = 0,655$); central ovarian blood flow: group I - -0,23, group II - -1,479 ($p = 0,396$); peripheral ovarian blood flow: group I - 0,9, group II - 1,535 ($p = 0,513$). There was no intraoperative and early postoperative complications in both groups.

Conclusions

The results of this study showed no significant difference in indicators of physical and mental health, hormonal ovarian function and dopplerometric data in the groups of patients who underwent a hysterectomy in combination with or without salpingectomy. The given data may signify the safety of salpingectomy during laparoscopic hysterectomy considering ovarian function.

ES24-0343
BSA1

A Different Approach in High Risk Patients for Ovarian Cancer: Single-port Vs Conventional Multi-port Access in Prophylactic Laparoscopic Bilateral Salpingo-oophorectomy (BSO).Comparison of Surgical Outcomes.

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Background

To evaluate the surgical outcomes associate risk-reducing salpingo-oophorectomy performing in single port comparing multi-port laparoscopy in women with high risk for ovarian cancer. SPAL-BSO is feasible and safe with favorable surgical and cosmetic outcomes compared to conventional laparoscopy.

Methods

Prospective, multicentric, case-control study of patients with a high risk of ovarian cancer undergoing a BSO. Ninety-nine out of 115 patients met the inclusion criteria and entered the study. Patients were informed about the two types of surgeries and were alternatively assigned to undergo an SPAL-BSO with optimal laparoscopic experience and at least 1 year of training for this procedure or an MPL-BSO performed by skilled laparoscopic surgeons without SPAL experience. Collected data were patient characteristics (age, BMI [kg/m²]), co-morbidity, type and duration of surgery, estimated blood loss (EBL), postoperative pain score, perioperative complications, length of hospital stay, use of analgesics, and cosmetic satisfaction. At the end of each procedure, intra-operative data—trocar introducing time, operative time, EBL, intra- and peri-operative complications, and conversion to standard-multi-access laparoscopy or laparotomy—were registered.

Results

In total we performed 99 surgical procedures: 49 SPAL-BSO (group A) and 50 MPL-BSO (group B). There were no differences in the demographic and preoperative data between the two groups. SPAL-BSO mean operative time was statistically significantly lower than MPL. The time of entry into the abdominal cavity was significantly lower in group A as was the extraction time of the specimens. Pain measured immediately after surgery in the recovery unit was lower in the SPAL-BSO group than in the MPL-BSO group. Moreover, postoperative pain scores after 6, 12, and 24 h were lower in the SPAL-BSO group compared with the MPL-BSO group. Cosmeti satisfaction was significantly higher in SPAL group ($p<0.001$).

Conclusions

SPAL-BSO is feasible and safe with favorable surgical and cosmetic outcomes compared to conventional multiport laparoscopy.

ES24-0326
BSA1

Same-day Discharge After Vaginal or Laparoscopic Hysterectomy: a Systematic Review

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Background

Laparoscopic and vaginal hysterectomies are common gynaecological procedures. The vaginal approach is the preferred route for benign disease. Where vaginal hysterectomy is not feasible, laparoscopic hysterectomy is recommended. Same-day discharge is common in small gynaecological procedures like laparoscopic sterilisation and laparoscopic oophorectomies. In larger procedures like the vaginal or laparoscopic hysterectomy patients are usually admitted overnight. The feasibility and safety of same-day discharge has not systematically been reviewed. We systematically reviewed the literature to identify possible complications, risk factors for (re)admittance, financial consequences and patient satisfaction of same-day discharge after a vaginal or laparoscopic hysterectomy.

Methods

We systematically searched Pubmed, Embase, Cochrane and CINAHL database from inception until December 31st 2014. We selected retrospective and prospective cohort studies and randomized controlled trial assessing the safety and feasibility of same-day discharge after vaginal or laparoscopic hysterectomy.

Results

907 articles were identified, after duplicate removal and exclusion based on title, 148 abstracts were assessed for eligibility. 34 full-text articles were assessed, resulting in 19 articles that were included in the systematic review reporting on 141,810 hysterectomies. 1 RCT of 44 patients comparing patient satisfaction in day-case vs. inpatient laparoscopic supracervical hysterectomy showed similar complications and re-admission rates, similar satisfaction rates but a significantly lower quality of life (AUC EQ-5D index) in the day-case group. 7 prospective studies with a total of 2048 patients, reported a median same-day discharge rate of 90% [78-96%] and a median re-admission rate of 2.3% [0-10%]. Mean complication rate of minor and major complications in 5 studies is 0.73% [0-19%] 4 retrospective studies assessing the safety of same-day discharge in hysterectomy for benign and malignant indication in a total of 1039 patients showed a median same-day discharge rate of 92,7% [48.5-95.6%], a re-admission rate of 3,5% [1,1-4,8] and a mean complication rate of 12,5% [3,4-16%]. In the included studies satisfaction is measured using different instruments and various outcomes. There seems to be an overall high patient satisfaction rate.

Conclusions

Same-day discharge after laparoscopic and vaginal hysterectomy seems to be safe and feasible in a pre-selected, healthy population and is associated with a low (re)admission rate, low complication rate and good overall satisfaction. The lower reported quality of life in the single RCT was not supported by the results of the included prospective and retrospective cohort studies.

ES24-0281
BSA1

Implementing Laparoscopic Hysterectomy in Denmark - Results From the Danish Hysterectomy Database

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Background

The Danish Hysterectomy Database, DHD, is a nationwide clinical database, which was established in 2003 with the overall aim to survey benign elective hysterectomy. Since the establishment all hospitals in Denmark performing hysterectomy have been reporting data to DHD thought the National Patient Register by codes of diagnosis, operations, co-operations, comorbidity and relevant confounders. In 2015 the population in DHD comprised about 46 000 benign hysterectomies. Through the last decade the hysterectomy procedure has changes significantly, with the alteration of primarily abdominal procedures towards primarily laparoscopic procedures being one of the most important. The objective of this study was to analyse 10 years of data from DHD to evaluate the complication rate in relation to implementation of minimal invasive laparoscopic hysterectomy.

Methods

Annually DHD is publishing audit-reports including relevant key indicators defined by the database. DHD has primarily been focusing on reduction of complications, both minor and major, including re-operations. In addition, DHD has been contributing to assurance of quality by setting national standards for the hysterectomy procedure. Thus, in 2014 a national objective of >75% minimal invasive hysterectomies were defined by DHD in addition to an objective of <5% major complications and <12% overall complications. In this study the overall complication rates in DHD over time were analysed in conjunction with the use of laparoscopic surgery. Data were extracted form the annual audit-reports. The results were evaluated in relation to the national standards set by DHD.

Results

Initially in 2004 the overall complication rate in relation to benign hysterectomy in Denmark was 19% including per- and postoperative complications. The corresponding fraction of laparoscopic hysterectomies was 5%, which constituted a subset of all minimal invasive procedures of 35%. The complications included 8% postoperative bleeding complications, 3% infections, 1.5% organ lesions and 5% re-operations. In 2014 the complication rate was reduced to 14% simultaneously with the proportion of laparoscopic hysterectomies and minimal invasive procedures being substantially increased to 51% and 73%, respectively. The majority of complications consisted of 4% postoperative bleeding complications, 3% infections, 1.5% organ lesions and 3% re-operations.

Conclusions

With the national implementation of laparoscopic hysterectomy in Denmark the overall complication rate has been reduced from initial 19% to 14%. Both postoperative bleeding complications and re-operation rates were reduced while no increase in organ lesions occurred. DHD has supported and contributed to this implementation process amongst other things by setting national standards for minimal invasive hysterectomy.

ES24-0314
BSA1

How to Prepare Residents for Endoscopic Surgical Training

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Background

Endoscopic surgery has become the gold standard in surgery but implementation without appropriate training and validation leads to higher morbidity and mortality rates. The European Academy for Gynaecological Surgery (+he Academy) and the European Society for Gynaecological Endoscopy (ESGE) have recognized this and developed a structured training, certification and diploma program for endoscopic surgeons. Within this program the Laparoscopic Skills Training and Testing (LASTT) method is used to measure the laparoscopic psychomotoric or instrument handling skills of an individual which are different from surgical learning process. Psychomotor skills can be measured in an objective way outside the OR in a simple box trainer using the LASTT model. Residents of 3 different countries were tested at different stages of their educational curriculum. The primary aim of this study is to define the basic psychomotoric endoscopic skills of residents in our discipline. Secondary aim is to evaluate the effect of the different training strategies used in those three countries.

Methods

In agreement with the local boards, approved mentors of +he Academy have tested in a period of 5 years residents of Spain, France and Flanders.

The mentees where exposed with the LASTT model to 3 exercises; camera navigation (E1), hand-eye coordination (E2) and bimanual coordination (E3). Each exercise is repeated 3 times. The online scoring platform calculates the results and provides for each mentee and exercise an allocation to a certain group of performance. We recognize 3 groups with a color code: the room for improvement group receives a red color code, the fair group a yellow one and the excellent performance group a green one

We calculated the results of residents without clinical experience or laboratory training. We compared those with results obtained after major exposure to clinical training or skill lab training.

Results

A total of 928 tests were performed in 729 residents (Spain 380, France 154, Flanders 195). The baseline results for the first year residents (no experience with laparoscopy or skills lab) were identical for E1 and E3 in all countries. For E2 Spanish residents scored significant better. Residents training only through surgical activities need more than 100 interventions to score significant better for E1 and E3 and 30-100 interventions for E2. The mean value of those residents with more than 100 interventions remained in the room for improvement group. All residents with skills lab training improved their skills to the yellow or green group and scored significantly better that the surgical activities group.

Conclusions

These results show that residents can acquire the appropriate psychomotor instrument handling skills rather through box training than through surgical activity. This supports the international recommendation that residents should receive access to a structured and validated training and testing program prior to their in OR endoscopic surgical education.

ES24-0334
BSA1

Quality of Life and Risk of Reintervention Comparing Endometrial Ablation Ad Laparoscopic Sutotal Hysterectomy: a 15 Years Follow up Study

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Background

Recurrent menorrhagia is a common symptom in one third of women. Laparotomic Hysterectomy had been the only treatment of abnormal uterine bleeding (AUB) resistant to medical treatments, until in the late 80's the development of endoscopy introduced laparoscopic hysterectomy and hysteroscopic endometrium ablation. We therefore started in 1995 a randomized controlled trial to compare these new techniques, endometrial resection (HER) and laparoscopic supracervical hysterectomy (LSH) that reported a higher satisfaction rate in LSH group.

Methods

This is a long term follow-up of a RCT of HER and LSH for recurrent menorrhagia . After 15 year 153 out of 181 women, of a RCT, comparing laparoscopic supracervical hysterectomy (N=82) and hysteroscopic endometrial resection (n=71) were retrieved. All women were submitted to the QualityMetric's SF-12 Health Survey (SF-12).

Results

Significantly more bleeding and further surgeries after hysteroscopic endometrial resection occurred into 4 years (22,6% after hysteroscopic endometrial resection vs 0,4% after LSH), confirming the higher satisfaction rate in the LSH group.

Conclusions

Physical and mental health following the laparoscopic supracervical hysterectomy procedure resulted significantly better than the hysteroscopic endometrial resection group, suggesting that laparoscopic supracervical hysterectomy, even in a long term period, has to be considered the best choice among the minimally invasive surgical approaches.

ES24-0554
BSA1

Determination of Basic Prerequisite for In-bag Power-morcellation.

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Background

1.Evaluation of the feasibility of a new in-bag power morcellation tool, using a containment bag with closable access – openings by 7 Surgeons in 2 hospitals.
2.Establishing the minimal diameter of the umbilical incision to provide a spillage-free extraction of the bag (in vitro study).
3.In-vitro-testing of the in-bag-morcellation to prove spillage-tightness of the closeable bag.

Methods

80 supra-cervical hysterectomies were carried out. Uterus corpus was placed in a modified polyurethane extraction bag (volume 2000 ml, Catch Bag M600, UMD S.A.R.L, Luxemburg). The two openings closable by preinstalled purse-string-sutures. 12 mm and a 15 mm morcellators were used. A template with 11 bore holes sized from ten to 24 mm imitating the width of an umbilical incision was used. Morcellation bags were filled with 20 ml of blue dye; all three openings were closed using the integrated system. For each bore hole, ten bag extractions were carried out. Fluid loss and the required force were recorded. In a second in-vitro–test we performed 12 morcellations in a test-setting with dyed meat. The completely dyed meat was morcellated with the original laparoscopic setting in a special constructed box-trainer. The inlay was laid out with absorbent white paper.

Results

The mean placement time of the bag including the specimen, differed according to the experience of the surgeon, the weight of the tissue and the BMI or unexpected conditions in the abdomen. Experienced surgeons needed 10 min (range, 4-34 min). The mean specimen weight was 132.2 g (range, 25-910 g). Mean morcellation time in this groupe was 8 min (range, 3-35 min), mean weight of remaining tissue in the bag was 10.9 g (range, 6-42 g). No evidence for dye loss was recorded for incisions 24 mm to 18 mm. Color change of the template edge without color drops on the indicator paper was registered in one of ten trials for the 16 mm incision. The required extraction force increased with decreasing bore whole diameter. During morcellation-test no spillage was registered. One control bag was perforated with intent to test the reliability of the test.

Conclusions

We could show that the closable –system provides a good morcellation by using a power morcellater and an additional grasper ad one time. The study also provides the first in vitro data concerning the bag safety during its retrieval from the abdomen, indicating that a minimal incision size is required to avoid the loss of fluid. We could work out that the protuberance of the bag prevents the spread into the abdominal wall and optimizes the air-tightness of the system as well as the placement of the trocars. We could show that the closing-system is tight during morcellation and consider the technique as a safe procedure to prevent the tissue spread.

ES24-0166
BSA2

Complications of Laparoscopy and Hysteroscopy in Norway - Results From the National Norwegian Gynaecological Endoscopic Registry From February 2013 Until March 2015

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Background

More than 90% of the surgical procedures in gynaecology can be done by established minimally invasive surgical procedures. Indication, type of procedure and outcome varies much on local, national and international level. Only a representative large number of registered patients allows a sufficient database for assessment of complications, quality management and health service research. It is therefore beneficial to have a constantly up-to date national database to monitor these trends.

Methods

Registration of laparoscopic and hysteroscopic procedures in the web-based national Norwegian Gynaecological Endoscopic Registry (NGER) is mandatory in Norway. The registration includes demographic factors, general health parameters, information about comorbidity and previous surgery, documentation of the present surgery and intra-operative complications. 4 to 6 weeks postoperatively a questionnaire was sent to the patients to document complications. We used the database of the NGER from the start date 01.02.2013 until 23.03.2015 to investigate the intra- and postoperative complications of laparoscopy and hysteroscopy in Norway.

Results

In the above period there were performed 2308 (69,2%) operations by laparoscopy, 949 (28,5%) by hysteroscopy and 76 (2,3%) by combined hysteroscopic and laparoscopic procedures. Of these 2021 (60,6%) were performed as outpatient surgeries. Further analyses showed that there were 65 (2,7%) intraoperative complications by laparoscopy and 38 (3,7%) by hysteroscopy. 64 (2,7%) of all laparoscopic surgeries had to be converted to laparotomy. 41 (1,2%) patients were re-operated. Frequency of all postoperative complications was 12,0% (278) by laparoscopy, 3,7% (35) by hysteroscopy and 5,3% (4) of combined laparoscopy-hysteroscopy. Complications observed after laparoscopic surgery were mild in 219 (9,5%), moderate in 37 (1,6%) and severe in 22 (1,0%) patients, respectively. There was not noted any death. Complications recorded after hysteroscopic surgeries were mild in 33 (1,2%), moderate in 2 (0,2%) patients, neither severe complications nor death was observed. Some of the registered factors as general health parameters, comorbidity and previous surgery seem to be associated with higher risk for complications.

Conclusions

Laparoscopy and hysteroscopy are now the most common gynecological procedures in Norway. The use of laparoscopy, recorded in the NGER, was associated with postoperative complications in 12,0% of patients and in 3,7 % patients operated by hysteroscopy. Only 1,0 % of patients had severe complication after laparoscopy. Our results confirm previous findings- the use of minimal invasive surgery in gynaecology is safe and efficacious. It is important to continue to use large data registers to monitor trends and developments in procedures and their complications.

ES24-0446
BSA2

Preoperative Ultrasonographic Evaluation of Periumbilical Adhesions: is It Feasible?

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Background

Currently existing trials for the reduction of iatrogenic bowel trauma during first trocar insertion do not allow to prefer one or another of the laparoscopic insertion technique. Blind trans-umbilical technique following creation of pneumoperitoneum with Veress needle, open laparoscopy (Hasson technique), or direct trans-umbilical trocar with no prior pneumoperitoneum are procedure at risk for bowel damage. No statistical differences between those techniques has been demonstrated. As a consequence a preoperative diagnostic tool for periumbilical adhesions detection could be clinically relevant. This prospective case-control study has the aim of evaluating effectiveness and usefulness of ultrasound evaluation of periumbilical adhesions in high risk group (previous abdominal surgery).

Methods

60 patients undergoing surgical intervention (laparoscopy or laparotomy) for benign disease were evaluated preoperatively . The ultrasonographic criteria considered were periumbilical visceral slide with and without Valsava's maneuver. Scans were performed by 3 sonographer, blinded, in all women, using a convex probe. Women were divided in 2 groups: low risk or controls (no previous abdominal surgery, 30 women) and cases (30pts, previous abdominal surgery). Test was positive if sliding was less than 1 cm. Patients' age ranged from 21 to 67 years. The weight was between 90 and 52 Kg and the height was of 153-175.

Results

Controls' sliding test was negative at rest and during Valsalva for all the women. The result was confirmed by means surgical time: no adhesions were found in following laparoscopic surgery. Among 30 cases with previous abdominal surgery, 18 hadn't any adhesions and their sliding test was negative. 12 had adhesions. 6 out of 12 cases with periumbilical adhesions had positive sliding test (true positive) (BMI greater than twenty five - preobesity and obesity status)but 6 had negative sliding test (false negatives) (BMI less than twenty five).

Conclusions

Preoperative ultrasonographic evaluation of periumbilical adhesions showed a NPV of 83% and a diagnostic accuracy of 86%. BMI does not seem to influence the evaluation, probably for the lower thickness of subcutaneous fat in periumbilical region, even in obese patients. Retrospective revisiting of false negative cases showed that in all these women the adhesion were envolving non bowel but omentum. True positive women had all bowel attached at periumbilical surface.

ES24-0259
BSA2

Accuracy and Reproducibility of Ultrasound Elastography for the Assessment Fibroids and Adenomyosis, with MRI as Reference Standard

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Background

Elastography is a relatively new imaging technique measuring tissue elasticity. The aim of the current study was to estimate the accuracy and the interobserver and intermethod reproducibility of elastography compared with normal gray-scale ultrasound, in the diagnosis and measurements of uterine pathology. MRI was used as reference test.

Methods

We performed a prospective cohort study with MRI as a reference test. Random stored cineloop images (n=58) of patients with fibroids or adenomyosis and normal uteri were included. We compared differences in the additional value between a junior and senior observer. Both observers were blinded for the real-time scanning outcomes or symptoms. Stored conventional gray-scale and the combined grayscale with elastography cineloops were scored separately. Suspected diagnosis and level of certainty of the diagnosis (on a 4-point scale: 1 very certain; 4 not certain) were registered.

Results

For diagnosing fibroids elastography had a sensitivity of 0.82 (senior) and 0.88 (junior) and a specificity 0.95 (senior and junior); for diagnosing adenomyosis elastography had a sensitivity of 0.91 (senior) and 0.77 (junior) and a specificity of 1.00 (senior) and 0.97 (junior).
The diagnostic agreement between conventional gray-scale ultrasound and MRI was good for both observers (kappa 0.72 and 0.68). After adding elastography the agreement increased to excellent: kappa was 0.87 for the senior and 0.77 for the junior observer.
The junior observer became more certain after the addition of elastography (increase of certainty score of 30.9%); the level of certainty did not change for the senior observer. The benefit of the addition of elastography in terms of an increase in kappa was the highest in case the junior observer was more certain about the diagnosis (increase from 0.43 to 0.75).

Conclusions

The addition of elastography to conventional gray-scale ultrasound is useful in the assessment of fibroids and adenomyosis as demonstrated by an increase of accuracy and diagnostic agreement, independent on the level of experience. Adding elastography increased the level of certainty of the diagnosis in the junior observer only.

ES24-0358
BSA2

Longitudinal Ultrasound Evaluation of the Niche in the Uterine Scar After a Caesarean Section

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Background

To evaluated the natural development of niches in the uterine scar during the first year after a caesarean section (CS).

Methods

Prospective cohort study. The study was performed at the Sint Antonius Hospital, a teaching hospital in the Netherlands. Patients who delivered by a CS of their first pregnancy were evaluated by transvaginal sonography (TVS) en Gel Installation Sonography (GIS) 2 months and 1 year after a caesarean section. The trial was registered in the Dutch trialregister (www.trialregister.nl, trial number NTR-2887). A niche was defined as an anechogenic space at the presumed site of the caesarean scar with a depth of at least 2 mm.

Results

A group of 20 patients were included. Prevalence of a niche did not change significantly, it was 60 % on TVS and 55% on GIS after 2 months and 55% on TVS and 60% on GIS after one year ($p=0.69$). Residual myometrium (RM) reduced from 11,9 mm to 6.5 mm ($p<0.001$), from 2 to 12 months with GIS with a mean difference of 5,4 (95%CI 3,58-7,27) . The adherent myometrium (AM) reduced from 15mm to 12.4 mm ($p=0.04$), mean differences 2.6 (95% CI 0.13-5.0). The ratio between RM and AM decreased from 0.8 at two months to 0.54 at 12 months with GIS ($p=0.002$), mean differences 0,26 (95% CI 0,11-0,42). Mean niche depth with GIS at 2 and 12 months was 3.8 mm and 5.3 mm, respectively ($p=0.457$). Uterine length and width did not change.

Conclusions

Residual myometrium and the ratio between the residual myometrium and adherent myometrium reduced significantly from 2 to 12 months after a CS. Increase in niche depth was not statistically significant different. Apparently, the thickness of the myometrium at the site of the uterine caesarean scar is not a static feature and changes over time. Longer follow-up is needed to find out if niches further increase after one year or that the initial reduction in residual myometrium is the result of normal adaptation of the uterus to the non-pregnant condition

ES24-0426
BSA2

Obstetric Outcomes in Patients with Pelvic Endometriosis

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Background

Assess the outcome in obstetric patients with endometriosis.

Methods

Study conducted between 2009 and 2013 on 515 women at the Department of Maternal and Child 'University of Florence. Group A consists of 189 patients with previous surgery for endometriosis in the years before pregnancy, with histological confirmation. Group B consists of 326 patients with previous abdominal surgery without detection of endometriosis, excluding patients undergoing operations with involvement uterine. They were considered only nulliparous pregnant. They were excluded women who conceived with assisted reproductive technology, chronic hypertension, diabetes mellitus, age greater than 42 years, twin pregnancies. Group A was further divided into:

- A1 group of 59 patients with superficial peritoneal endometriosis
- A2 group of 78 patients with endometriomas without signs of DIE
- A3 group of 52 patients with DIE with or without endometriomas

Statistical analysis was performed using package Statatistical Package for the Social Sciences software

Results

In the analysis of data we were compared the two study groups A and B, for each variable we have also considered whether there was a statistically significant difference in the three subgroups of patients with endometriosis. They were associated in a statistically significant abortion (p <0.05) (OR = 1:49) [IC: 0:09 to 2:25], placenta previa (p <0.05) (OR = 6.23) [CI: 1.17 - 45.86], preterm delivery , (p <0.05) (OR = 2.00) [CI: 1.098 - 3.67], cholestatic liver (p <0.05) (OR = 3.58) [CI: 1.107 - 25.12]. Going on to analyze subgroups, there was no difference statistically significant except for the one on the history of abortion, more frequent in the subgroup A2 (A1 = 22.08%, 43.38% = A2, A3 = 32.69%) (p <0.05).

Conclusions

Patients with a history of endometriosis are at increased risk for certain pregnancy complications, miscarriage, cholestasis, placenta previa and preterm birth. The mechanisms that may connect endometriosis to an increased risk of miscarriage are likely to be found in the alteration of humoral and cell-mediated or genotoxicity oocyte. A significant association was found between endometriosis and intrahepatic cholestasis of pregnancy, probably by dysregulation of the immune response. As regards the placenta previa, it was showed rise in the incidence in this group of patients. Our study showed an increased risk of preterm delivery in patients with a history of endometriosis. Presumably to be related to the chronic inflammatory state present in patients with the disease, for the action that inflammatory cytokines can have on the cervix, could trigger the mechanisms of birth prematurely. As for hypertension, preeclampsia and how the accomplishment of the delivery, percentage of SGA children there is no difference in agreement with the literature data. In conclusion, patients with endometriosis are considered at increased risk for certain pregnancy complications and therefore monitor more closely during pregnancy.

ES24-0076
BSA2

Endometrioma Size is a Relevant Factor in the Selection of the Most Appropriate Surgical Technique: a Prospective Randomized Preliminary Study

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Background

Ovarian endometriomas is the formation of a cyst within the ovary with ectopic endometrium tissue lining and is found to be in 17%-40% of patients with endometriosis. The commonest procedure for the treatment of ovarian endometrioma consists in opening and draining the cyst subsequently performing either a cystectomy (stripping technique), or electrocoagulation of the cystic wall (ablative technique).

The safety of these techniques has been questioned as compared to the potential risk of significant damage to the ovarian reserve, defined as the reduction in number and quality of ovarian follicles. The role of endometrioma size and the type of the surgical technique employed on the magnitude of postsurgical ovarian damage is still to be fully elucidated. Attention to the ovarian reserve is an important aspect in the treatment of infertile patients in whom the endometrioma per se may seem responsible for suboptimal ovarian reserve.

The aim of the study was to assess and compare ovarian reserve in patients with different endometrioma size, treated with either cystectomy or ablative surgery, in order to determine the best surgical approach to safeguard healthy ovarian tissue .

Methods

Prospective randomized study on 48 patients with unilateral single ovarian endometrioma. Patients were allocated to one of two groups according to endometrioma diameter : < 5 cm (26 group A, small endometrioma) and ≥ 5cm (22 group B, large endometrioma). Each group was randomized to either coagulation or excision treatment in a 1:1 ratio before the procedure. AMH levels were evaluated before treatment and at 3 months following surgery

Results

A significant reduction of AMH levels was observed following ablation and excision in both groups of endometrioma size. A significant interaction effect was observed between endometrioma size and type of surgical technique employed (ANCOVA p for interaction =039): in group A there was no significant difference between the two techniques (-17.6±4.7 vs. -18.2 ±10.6),whereas in group B, the excision group showed a significantly greater reduction of the percentage decline in AMH levels compared to ablation (-24.1% ± 9.3% vs -14.8% ± 6.7%, p=0.011)

Conclusions

The surgical treatment of endometrioma negatively affects ovarian function whatever the surgical technique employed; the effect of the increasing size of the endometrioma on the magnitude of ovarian reserve damage only applies to excision treatment; in case of ablation, the decrease in AMH serum level is independent of cyst size. In the surgical treatment of large endometrioma the decrease in AMH levels is more consistent and much more severe after cystectomy than after ablation.

ES24-0154
BSA2

Impact of Septal Morphology (Width and Length) On Adverse Reproductive Problems in Women with U2a Uteri Classified According ESHRE-ESGE Classification

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Background

After the introduction of ESHRE-ESGE classification of uterine anomalies (2013) a lot of arcuate uteri classified according to Salim' classification (2003) became partial septate uteri (class U2a). All the new U2a uteri differ very much for the morphology. The aim of the study was to correlate width and length of uterine septa with adverse reproductive problems to improve the counselling for the women who experience reproductive failure.

Methods

The stored 3D ultrasound uterine volume were retrospectively evaluated. Three measurements were taken in the coronal plane: uterine cavity width (W), fundal distortion or septal lenght (L) and unaffected myometrium length (M). Uteri were classified U2a if L exceeding the 50% of M and the septum goes up to the level of the internal cervical os. Infertility (inability to conceive after 12 months of contraceptive-free intercourses) and miscarriage (at least one pregnancy loss before 20-22 weeks of gestations) rates were related to three distinct groups based on the width (<25 mm; 25-30 mm; >30 mm) and on the length (3-5 mm; 6-9 mm; 10-14 mm; ≥15 mm).

Results

309 women with U2a uterus were included in the study. The mean age was 34,2±6,2 years and the mean BMI was BMI 21,9±3,2 kg/m2. Reproductive problems were analyzed only in patients with pregnancy desire (69,3%). Infertility rate was higher ($p<0.05$) in women who had smaller septal width than in the ones who experienced at least one miscarriage. Considering respectively infertility and miscarriage in relation to the width of septum, the rates were: 66,7% and 21,1% (group 1: <25 mm); 55,7% and 34,1% (group 2: 25-30 mm); 30,4% and 58% (group 3: >30 mm). No statistical difference was found considering the septal length.

Conclusions

ESHRE-ESGE classification arise several diagnostic and clinical implications and may result in difficulties in counseling and in treatment options in women with U2a uteri who experience infertility and/or miscarriage. The width and not the length seems to have an impact on reproduction. Probably the pathogenesis of infertility and miscarriage could be also correlated to the cavity shape and to myometrial tissue component. Prospective studies could help to refine criteria for metroplasty.

ES24-0468
BSA2

Diagnosis and Treatment of Endometriotic Lesions Found at Transvaginal Laparoscopy

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Background

Although indirect methods for the exploration of the tubo-ovarian tractus are commonly used as a first line screening method, direct visualization by endoscopy of the uterine cavity and tubo-ovarian structures still is considered to be the golden standard. Transvaginal endoscopy is a minimally invasive technique for the evaluation of the tubo-ovarian structures in their natural position. With the use of pre-warmed Ringer lactate and hydrofloatation superficial small lesions can easily be identified.

The objective of this study was to evaluate the accuracy of transvaginal endoscopy (TVE) in comparison with transvaginal ultrasound (TVU) for the diagnosis of minimal and mild endometriosis. And to evaluate the feasibility of treatment of these endometriotic lesions by TVE.

Methods

1502 patients attending the infertility clinic were referred for a transvaginal endoscopic exploration. TVU was performed preoperatively in all patients. Patients with obvious pelvic pathology were excluded. In all patients TVE was performed as described by Gordts et al (1998).

Results

Of the 1502 patients the TVE technique used to access the pouch of douglas failed in 27 patients (1,8%). Overall the complication rate was 1,7%, whereas the incidence of bowel perforation at the time of insertion of the instruments was 0,7%. Endometriosis was diagnosed in 267 patients (18%). Peritoneal implants were detected in 164 patients (61% of the endometriosis group). Ovarian endometriotic cysts were detected at TVE in 76 patients (28%). These cysts were mostly associated with adhesions. Adhesions without cyst formation but due to endometriosis were found in 27 patients (10%). Ovarian endometriomas were only detected preoperatively by TVU in 16 patients (24% of the patients with endometriotic cysts). The mean size of endometrioma that were missed at TVU was 9,7 mm (SD 4,9). Eleven patients with endometriosis were referred to standard laparoscopic treatment, all the other patients could be and were treated by TVE during the same session. Endometriotic implants were coagulated using bipolar probe. Vascularized adhesions were first coagulated and then resected. In patients with endometriotic cyst, first a sharp and/or bipolar dissection at the site of invagination allowed us to open the cyst, then drain the chocolate content and coagulate all the endometriotic implants inside the opened cyst with a bipolar probe. In 124 patients treated in this way and without tubal pathology or an abnormal sperm count of the partner, expectant management revealed a 49% pregnancy rate at 6 months postop, the mean age of this group being 31.

Conclusions

Direct endoscopic visualization and the use of a watery distension medium can reveal the presence of subtle lesions that otherwise remain undetected. There is increasing evidence that the diagnosis of endometriosis, whatever its stage, is important in patients with infertility. TVE access allows treating these small lesions without the need of standard laparoscopy.

ES24-0518
BSA2

A Step Backwards Relative to the ASRM: New ESHRE/ESGE Classification for Common Congenital Uterine Anomalies Showed Insufficient Reliability to Making Clinically Important Decision.

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Background

The main objective of this study was to estimate the inter- and intrarater reliability of the ESHRE-ESGE classification of common congenital uterine malformations and to compare the results obtained with the reliability of the ASRM classification supplemented with additional morphometric criteria. An additional objective of the study was to assess the reproducibility of the 3D ultrasonographic measurements used to classify the following: internal fundal indentation, and external cleft and uterine wall thickness. We estimated the relative risk (RR) of disagreement of the ESHRE-ESGE system with the ASRM system, and the potential clinical implications and weaknesses of each system in terms of reliability.

Methods

Design: Reliability/agreement study. ***Setting:*** Private clinic. ***Patients and subjects:*** 3D ultrasound single volumes of uterine malformations (n = 50, consecutively included) and the normal uterus (n = 62, randomly selected) were classified based real-time 3D transvaginal and transrectal (the patients were virgins in 4 cases of virgins) ultrasonography findings, which were assessed by an expert rater based on the ESHRE-ESGE criteria. The samples were obtained from women of reproductive age. ***Intervention:*** Unprocessed 3D datasets were independently evaluated offline by two experienced, blinded raters using both classification systems. ***Main Outcome Measures***: The κ-values and proportions of agreement.

Results

Standardized interpretation indicated that the ESHRE-ESGE system has substantial/good or almost perfect/very good reliability for congenital uterine anomalies ($\kappa > 0.60$ and >0.80), but the interpretation of the clinically relevant cutoffs of κ values showed insufficient reliability for clinical use ($\kappa < 0.90$), especially in the diagnosis of septate uterus; the ASRM system had sufficient reliability ($\kappa > 0.95$). The intraclass correlation coefficient in a one-way random model (1.1) for internal fundal indentation was >0.99 (interpreted as very good, according to the lower limit of the 95% CI), and those for external cleft and uterine wall thickness were 0.95–0.99 (interpreted as good and moderate, respectively, according to the lower limit of the 95% CI). The relative risk (RR) of intra- and interrater disagreement in the recognition of septate uterus by using the ESHRE-ESGE classification relative to the ASRM classification was significantly high (RR intrarater disagreement: 9.0, 95% CI: 1.2–70, $P = 0.04$; RR interrater disagreement: 13, 95% CI: 1.8–98, $P = 0.04$).

Conclusions

The reliability of the ESHRE-ESGE system may be insufficient for the management of common uterine malformations, in particular, septate uterus, despite the use of an optimal diagnostic test (3D transvaginal ultrasonography). The ESHRE-ESGE system must be improved. The use of the ASRM classification supplemented with simple morphometric criteria may be preferred, if their high reliability can be confirmed real time in a larger sample size.

ES24-0415
BSA2

Which Technique Should Be Preferred to Reduce Ovarian Damage During Laparoscopic Ovarian Cystectomy Acording to Long Term Ovarian Reserve Results, Hemostatic Sutures Versus Bipolar Electrocoagulation?

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Background

The aim of the study is to determine long term effects of the laparoscopic hemostatic techniques on ovarian reserve after ovarian cystectomy.

Methods

Ninety patients with unilateral ovarian cysts were recruited for the study and they were randomly distributed into two groups. Laparoscopic stripping cystectomy was performed in all patients. After cystectomy hemostasis was achieved in 45 patients by hemostatic suture (group 1) and by bipolar electrocoagulation (group 2) in other 45 patients. 2 patients were excluded from the study due to bilateral ovarian cysts determined in the surgery and 24 patients were excluded because of conceived during follow up period. Also 5 patients were excluded owing to recurrence of the endometrioma cysts during follow up period. Serum levels of anti-mullerian hormone were determined in all patients preoperatively, postoperatively 1 months, 3 months and 12 months, also all patients were evaluated in the way of residual ovarian volume and antral follicle count and pregnancy results and two groups were compared according to these parameters.

Results

There was no statistical difference between two groups in terms of age, body mass index, parity, gravida and cyst volume. In addition, mean operation time was shorter in bipolar electrocoagulation group (p=0.028). Serum levels of anti-mullerian hormone were not significantly different between two groups preoperatively (p=0.574) and postoperatively 1 month (p=0.052). But there was statistical difference determined between two groups in way of anti-mullerian hormone levels at 3 months (group 1 = 3.17 ± 3.40 vs group 2 = 2.38 ± 2.57, p=0.006) and 12 months (group 1 = 3.71 ± 3.09 vs group 2 = 2.78 ± 2.85, p=0.005) after surgery. Also, in group 1, there was not a significant difference between preoperative and postoperative anti-mullerian hormone levels (p=0.165), antral follicle count results (p=0,779) and residual ovarian volume results (p=0.248) but in group 2, postoperative anti-mullerian hormone levels were lower than preoperative levels (p=0.028) and residual ovarian volumes postoperative 3 month and 12 month were found lower compared to 1 month volumes (p=0.001). Nonetheless, pregnancy rates were not significantly different between two groups (p=0.546).

Conclusions

Bipolar electrocoagulation is more destructive compared with hemostatic suture in cystectomy hemostasis. Especially, decreased ovarian reserve created by bipolar electrocoagulation emerges more prominently compared to hemostatic suture after 3 month surgery. However, decreased ovarian reserve does not increase during follow up period after surgery and does not affect pregnancy rate.

ES24-0093
BSA3

What is the Value of Hysteroscopic Endometrial Biopsy in Postmenopausal Women with Endometrial Irregularity in Hysteroscopy?

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Background

Background: The aim of this study is to assess the histopathological findings and determine the frequency of malignancy in postmenopausal women evaluated by office hysteroscopy due to endometrial thickening in transvaginal ultrasonography and that had only endometrial irregularity in hysteroscopy.

Methods

One thousand two hundred postmenopausal patients underwent diagnostic hysteroscopy between January 1, 2011 and March 30, 2014 in a university hospital . In 258 of them diagnostic hysteroscopy indication was only thickened endometrium in transvaginal examination and they did not have any complaint about abnormal uterine bleeding. Of 258 patients, in 65 of them the only abnormality in office hysteroscopy was irregular endometrium and their hospital records were evaluated retrospectively. A rigid 30-degree 4-mm hysteroscope was used without anesthesia or analgesia. The uterine cavity was distended using normal saline solution at a pressure of 100 to 120 mm Hg. Approximately 3-4 endometrial biopsies were taken in 65 patients, from the areas seen as irregular.

Results

For the 65 studied women; mean age, body mass index and endometrial thickening was 57 (46-65), 27 (24-31) and 7.8 mm (5.5-9.8), respectively. In 2 of the 65 patients (3%) endometrial biopsy specimens were inadequate for evaluation. Histopathological diagnosis were as follows in 63 patients; irregular proliferation without atypia (29, 44.6%), polyp (11, 16.9%), polypoid proliferation (10, 15.8%), simple hyperplasia (4, 6.1%), endometrial carcinoma (3, 4.6%), endometrium in secretion phase (2, 3%), inactive endometrium (2, 3%), complex hyperplasia (2, 3%).

Conclusions

To diagnose the cases with atypia and/or cancer is the first aim for evaluation in postmenopausal cases. However, even in cases without bleeding and evident findings in hysteroscopy, pathological diagnosis may be hyperplasia and moreover endometrial carcinoma. Therefore, even if we only observe irregularity without abnormal bleeding, we should take hysteroscopic biopsies.

ES24-0385
BSA3

Structured Hysteroscopic Evaluation of Endometrium in Women with Postmenopausal Bleeding

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Background

Background:a) To evaluate visual pattern parameters obtained with hysteroscopy for the prediction of endometrial cancer b) To evaluate observer variation of these parameters c) To present a scoring system of the parameters for the prediction of malignancy and compare to subjective evaluation.d) To present hysteroscopic image characteristics of endometrial cancer.

Methods

Prospective controlled study involving 149 consecutive women with postmenopausal bleeding and an endometrium thickness ≥ 5 mm. 61 (41%) had endometrial cancer. 46 of 149 women were referred based on suspect malignancy. Endometrial pattern characteristics for endometrial cancer were evaluated in hysteroscopic video clips. The reference standard was pathologic evaluation of resectoscopic samples or hysterectomy. Using multivariate logistic regression, image parameters were correlated with the presence of endometrial cancer. A scoring system of visual parameters for prediction of malignancy was compared to subjective evaluation of malignancy.

Results

A score for lesion surface, necrosis and vessels had an (AUC) of 0.89, 0.89, and 0.87, respectively. A Hysteroscopic Cancer (HYCA) scoring system based on unsmooth lesion surface, papillary projections, surface necrosis, “candy floss” necrosis, white hyperintense spots, irregular branching vessels, and irregular distribution of irregular vessels was able to predict cancer (AUC 0.964) with higher accuracy than subjective evaluation AUC 0.859 ($p < 0.01$). At a score value ≥ 3, sensitivity was 89% and specificity 92% with moderate agreement between observers (kappa: 0.56 (0.42–0.71)). Hysteroscopic videos illustrating the visual parameters will be presented.

Conclusions

Systematic pattern evaluation of optimal parameters by a HYCA-scoring system based on systematically defined terms may increase accuracy in the diagnosis of endometrial cancer and should be further elaborated and external validity tested in unselected women with postmenopausal bleeding.

ES24-0419
BSA3

Operative Hysteroscopy with the Bigatti Shaver Technique (IbsÂ®) for the Removal of Placental Remnants After Delivery: 5 Cases Report

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Background

Placental remnants can occur after miscarriage, termination of pregnancy, spontaneous vaginal delivery, or cesarean section. Histologic confirmation of placental tissue after surgical evacuation for secondary post-partum hemorrage is found in only 30% to 42%. Patients may have symptoms including vaginal bleeding, fever, and abdominal or pelvic pain. However, during routine follow-up after miscarriage or delivery, a high suspicion of placental remnants at ultrasound examination is reported in 6.3% of women, of whom 34.6% had not reported abnormal uterine bleeding. Surgical treatment of placental remnants traditionally consists of dilation and curettage (D&C) using vacuum aspiration and/or a metal curette. In this context, it is well established that “blind” removal of tissue causes destruction or damage to healthy surrounding tissue, which may lead to Asherman syndrome. An alternative and new method is the use of the hysteroscopic Shaver technique.

Methods

Five women, from December 2013 to March 2015, with histological examination of placental remnants after delivery, underwent a hysteroscopic procedure with the Intrauteine Bigatti Shaver (IBS®) for the removal of placental remnants at the San Giuseppe University Hospital in Milan (Italy). A retrospective review of our medical records was performed. The mean age at surgery was 38-years-old, 2 women were secondiparous while 3 women were primiparous. The placental remnants occurred after 1 spontaneous vaginal delivery, 1 dystocic vaginal delivery with vacuum extractor and D&C and 3 caesarian section. In 3 cases patients where asymptomatic and in 2 cases presented abnormal uterine bleeding. In 3 cases the placental remnants where suspected by the trans-vaginal ultrasound (1 of these with hysterosonography) and 2 cases with diagnostic hysteroscopy.

Results

The time of surgery after delivery was a mean of 57 days; 3 women showed to have a polipoid placental remnants of 20 mm of mean diameter, while 2 women showed a cavity fulfilled with residual of placental tissue. The mean cervical dilatation time (up to 8.5 of Hegar) was 60 seconds, the mean resection time was 7.6 minutes and the total mean time of the surgery was 13 minutes. The mean inflow (normal saline solution) was 2900 ml, the mean outflow was 2490 ml and the mean fluid deficit was 410 ml. Only in one case we had an excessive intraoperative bleeding with conversion to bipolar resectoscopy. No postoperative complications occurred and no second step operative hysteroscopy was needed.

Conclusions

Hysteroscopic removal of placental remnants with the Intrauteine Bigatti Shaver (IBS®) technique seems to be an effective new method for this indication. Further studies are needed in order to evaluate the success rate in terms of recurrence and adhesion formation with this new technique.

ES24-0341
BSA3

Reliability of Fluid Monitoring During Operative Hysteroscopy

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Background

One of the serious complications of operative hysteroscopy is fluid overload and subsequent pulmonary or cerebral oedema and hyponatraemia. We aim to evaluate the reliability and accuracy of the standard manual input and output volume monitoring by calculating the exact volume of fluid irrigated during a procedure and the measured outflow volume on the standard suction canisters used in the operating theatre.

Methods

Twenty 3-litre bags of Glycine 1.5% for irrigation were used. Each bag was weighed and then the contents emptied into a container. The packaging was then weighed separately. Subtracting the two measurements gave us the weight of the fluid contents of each bag. The specific gravity of Glycine 1.5% is 1.00640. For the purposes of the study we accepted that 1 gr of Glycine 1.5% equals 1ml. Digital weighing scales were used with a display accuracy of +/-1g. Subsequently, the accuracy of the output measured volume was assessed by assessing the accuracy of the Serres(OY) suction canisters. We used a calibrated 1000 mls beaker as our standard and we measured the actual volume contained in the suction canisters when the reading was 500 mls, 1000 mls and 2000 mls.

Results

The volume in the 3-litre Glycine 1.5% bags ranged from a minimum 3105ml to a maximum of 3124ml with a mean volume of 3115.3ml. This equates to a minimum percentage overfill of 3.6% and a maximum percentage overfill of 4.13% with an average of 3.84%. Therefore, we underestimate the volume infused by an average of 115.3ml per 3-litre bag. The actual volume of fluid in the Serres(OY) suction canisters when the reading is 500mls was 425 mls, at 1000 mls it was 900 mls and at 2000 mls it was 1850 mls. As a result a measured 3 litre outflow would have an actual volume of 2750 mls that is the outflow would be overestimated by 250 mls.

Conclusions

Accurate measurement of fluid absorption during operative hysteroscopy is confounded by a number of factors. Firstly, the irrigation bags are overfilled and therefore the input volume is underestimated. This study demonstrates a consistent overfilling of the 3-litre Glycine 1.5% bags between 3.6% and 4.13%. Secondly, the estimation of the output volume is inaccurate; the output volume of 3 litres is overestimated by 250 mls. Therefore it is important to use a more reliable method to monitor the fluid balance during hysteroscopic procedures. We propose the use of automated fluid management systems that rely on weighing the input and output fluid volumes for all operative hysteroscopic procedures in order to ensure accurate fluid monitoring and maximise patients' safety.

ES24-0323
BSA3

The Hysniche Trial: Hysteroscopic Resection of Uterine Caesarean Scar Defect (Niche) in Patients with Abnormal Bleeding, a Randomised Controlled Trial.

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Background

A caesarean section (CS) can cause a defect or disruption of the myometrium at the site of the uterine scar, called a niche. In recent years, an association between a niche and postmenstrual spotting after a CS has been demonstrated. Hysteroscopic resection of these niches is thought to reduce spotting and menstrual pain. However, there are no randomised trials assessing the effectiveness of a hysteroscopic niche resection. Our primary objective is to study the effectiveness of a hysteroscopic resection of the niche on postmenstrual spotting.

Methods

A multicentre randomised trial comparing hysteroscopic niche resection to no intervention. Women with postmenstrual spotting after a CS and a niche with a residual myometrium of at least 3mm during sonohysterography were asked to participate. After informed consent eligible women were randomly allocated to hysteroscopic resection of the niche or expectant management for 6 months.The primary outcome is the number of days with postmenstrual spotting during one menstrual cycle 6 months after randomisation. Secondary outcomes are menstrual characteristics, menstruation related pain and experienced discomfort, quality of life, patient satisfaction, sexual function and urological symptoms. Measurements are performed at baseline and at 6 months after randomisation. A cost-effectiveness analysis will be performed.

Results

103 women were included, 51 were randomised for expectant management, 52 for the intervention. The 6 months follow-up will be completed in July 2015. Preliminary results: Baseline characteristics did not differ between two groups (median postmenstrual spotting was 8 days in both groups). Preliminary data (completed follow-up in July 2015): At 6 months after randomisation, median postmenstrual spotting was 5 (interquartile range 2-7.5) in the intervention versus 7 (interquartile range 4-11) days in the expectant group (p=0.03). Median satisfaction was high in both groups (median of 4 on a scale of 1-5). Mean surgery time was 21.5 minutes and all procedures could be performed in daycare. Apart from one patient with postoperative fever, treated with antibiotics, no complications occurred.

Conclusions

Preliminary data show that hysteroscopic niche resection reduces postmenstrual spotting at six months after randomisation with 2 days in comparison with expectant management.

ES24-0370
BSA3

Long Term Reproductive Outcomes After Hysteroscopic Outpatient Metroplasty to Expand Dysmorphic Uteri (Home- Du) Technique

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Background

The objective of this study was to evaluate the long term reproductive outcome in patients with dysmorphic uterus treated by HOME-DU technique.

Methods

In this prospective observational study, 50 women with dysmorphic uterus (T-shaped or tubular shaped/infantilis uterus) and at least one of the following criteria were enrolled: history of primary infertility after exclusion of other infertility factors (i.e. patients with long-standing unexplained infertility, patients who had undergone unsuccessful assisted-medical procreation) (GROUP A), history of repeated early miscarriages [>2] (GROUP B) or severe preterm delivery [<25 weeks] (GROUP C). All patients were treated by HOME-DU technique to expand the dysmorphic uterus in the Hysteroscopy Unit of the Department of Gynecology and Obstetrics of University of Naples 'Federico II', Italy.
At the end of the procedure, an antiadhesive gel was applied into the uterine cavity.
The hysteroscopic procedure was conducted in outpatient setting under conscious sedation, using a 5-mm office continuous-flow hysteroscope with 5 Fr operating channel and vaginoscopic approach. All procedures were carried out by an expert surgeon (ADSS). Longitudinal incisions were performed on the fibro-muscular constriction rings in the isthmic area of the uterine side walls with a 5 Fr bipolar electrode. Then, other incisions were carefully carried out on the anterior and posterior uterine walls from the fundus up to the isthmus. The depth of all incisions did not exceed 5–6 mm.
Post-surgical evaluation was conducted by office hysteroscopy and 3D-TVS.

Inclusion criteria	Pregnancy	Abortion rate	Term delivery rate	Live birth rate
Group A (n=40)	21/40 (52.5%)	3/21 (14.5%)	18/21 (85.5%)	18/21 (85.5%)
Group B *(n=9)*	7/9 (80%)	2/7 (29%)	4/7 (57%)	5/7 (71%)
Group C (n=1)	0/1 (0,0%)	-	-	-
Total (n=50)	28/50 (56%)	5/28 (18%)	22/28 (79%)	23/28 (82%)

Group A: primary infertility Group B: repeated early abortions Group C: severe preterm delivery

Results

The technique was successful in all cases without complications. In all cases with exception of one a significant increase of volume and improvement of morphology of uterine cavity were obtained. At mean follow-up of 27 months, an overall clinical pregnancy rate of 56% (n=28/50) was detected with a mean time of conception of 10 months. In table 1 the main reproductive outcomes of the three groups are reported.
No significant obstetric complications were reported in the all groups, with only one case of preterm delivery at 36 weeks of gestation.

Conclusions

Our long-term data seem to confirm that HOME-DU technique is associated with a significant improvement of the reproductive outcomes without any significant obstetrical complications

ES24-0438
BSA3

Hysteroscopic Findings in Patients with Infertility and Abnormal Uterine Bleeding

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Background

The aim of this study was to evaluate the prevalence of normal and abnormal findings in patients undergoing hysteroscopy for infertility and abnormal uterine bleeding (AUB).

Methods

Reports of 670 consecutive hysteroscopies performed at Neolife – Medicina y Cirugía Reproductiva in Asunción, Paraguay from 2010 to 2015 were retrospectively evaluated, including 274 cases indicated for AUB, and 396 cases indicated for infertility. The proportions of patients with normal and abnormal findings in both populations were compared (X^2 test), and the prevalence of abnormalities was described. Because many women presented more than one finding the number of abnormalities reported overcomes the number of patients with abnormal findings.

Results

In the general population (n=670), 176 patients (26%) had normal findings, whereas abnormal findings were reported in 494 patients (74%). In the later group 602 abnormalities were found and distributed as follows: endometrial polyps (24.3%), thickened endometrium (19.8%), synechiae (12.1%), myoma (10.3%), cervical stenosis (8.8%), uterine malformations (4.8%), endocervical polyps (4.3%), endometrial cracks (4.2%), strawberry pattern (3.3%), isthmocele (3.2%), endometrial atrophy (1%), endometrial hypervascularization (1.8%), endocervical cysts (0.5%), endometrial cysts (0.3%), haematometra (0.2%), foreign body (0.2%), necrotic tissue (0.7%), varices (0.2%) and vegetations (0.2%). In the AUB population (n=274), 51 patients (19%) had normal findings, whereas abnormal findings were reported in 223 patients (81%). In the later group 296 abnormalities were found and distributed as follows: endometrial polyps 20.6%, thickened endometrium (27.4%), synechiae (9.8%), myoma (13.9%), cervical stenosis (3.4%), uterine malformations (1%), endocervical polyps (6.4%), endometrial cracks (5.4%), strawberry pattern (1.7%), isthmocele (3.4%), endometrial atrophy (0.7%), endometrial vascularization (2.7%), endocervical cysts (0.7%), endometrial cysts (0.7%), haematometra (0.3%), foreign body (0.3%), necrotic tissue (1%), vegetations (0.3%) and varices (0.3%). In the infertility population (n=396), 125 patients (32%) had normal findings, whereas abnormal findings were reported in 271 patients (68%). In the later group, 363 abnormalities were found and distributed as follows: endometrial polyps (26.2%), thickened endometrium (13.8%), synechiae (13.2%), myoma (9.1%), cervical stenosis (12.7%), uterine malformations (7.4%), endocervical polyps (3%), endometrial cracks (4.7%), strawberry pattern (4.1%), isthmocele (2.5%), endometrial atrophy (1.1%), endometrial hypervascularization (1.1%), endocervical cysts (0.3%), endometrial cysts (0.6%), necrotic tissue (0.3%). The reports of abnormal findings in both populations were statistically different (P=0.0002), the prevalence of abnormalities being higher in the AUB patients.

Conclusions

Our study demonstrates a very high prevalence of abnormal findings at hysteroscopy in both AUB and infertility patients, in the later group being surprisingly higher than the reported in the literature. The large variety of abnormalities found, some of them very subjective and operator-dependent, strongly suggest the need for a standardised system for reporting hysteroscopic findings.

ES24-0463
BSA3

Office Operative Hysteroscopy

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Background

Office hysteroscopy has become an indispensable procedure in diagnostics and treatment of the pathology of uterine cavity and cervical canal. The majority of patients with uterine cavity pathology, can be treated without referal to surgery in the operating room.

Methods

Methods. Between July 2003 and December 2014, 8260 patients were refered to Hysteroscopy office at Department of Gynecology and Obstetrics, University Medical Centre Maribor.

Results

Results. The mean age of our patients was 51.2±11.9 years (mean 8-94 years). Of them 45% were postmenopausal, 12.1% were nulligravid. In 95.5% the procedure was performed by vaginoscopic approach. With 53.8% the abnormal uterine bleeding was the main indication for office hysteroscopy. 87.8% women were referred because of abnormal or insufficient ultrasonographic findings. 13.9% of patients were evaluated due to infertility. In 5.6% a retained intrauterine device was removed and in 4.1% persistent gestational tissue. Office hysteroscopy was successful and the only treatment needed in 96.2% of our patients. The uterine cavity and cervical canal appeared normal in 37.4% of patients. In 49.1% we found endometrial polyps, in 36.8% uterine myomas and 4.8% had intrauterine adhesions. Intracervical pathology was represented with cervical polyps (7.6%) and adhesions (0.6%). In 33.5% we performed endometrial or cervical polypectomies, septum resection in 15.7% and myoma ablation in 8.1%. In 5.6% we removed missed intrauterine device and in 3.8% synhisiolysis was done. The hystology showed normal endometrium (36.61%), endometrial polyp (54.3%), endometrial hyperplasia (8%), atypical endometrial hyperplasia (3.1), endometrial carcinoma (3.7%) and in one patient endometrial sarcoma. More that 90% of polyp ablations, more than 50% of myoma resections, more than 60% of septum resections and more than 80% of intrauterine adhesions resections were performed in office setting and the operating room was not needed.

Conclusions

Operative office hysteroscopy by now has proved to be accurate and reliable method in treatment of uterine cavity pathology. Its combined diagnostic-therapeutic approach makes it a simple, fast, safe and patient friendly procedure with low costs.

ES24-0294
BSA3

Accuracy of Hysteroscopic Metroplasty with Combinated Use of Presurgical Three Dimensional Ultrasonography and a Novel Graduate Intrauterine Palpator

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Background

The objective of our study was to assess whether the use of a novel graduated intrauterine palpator can improve the accuracy of hysteroscopic metroplasty introducing objective intraoperative criteria

Methods

90 women with uterine septum diagnosed with 3D-transvaginal ultrasound (3D-TVS) were enrolled in this prospective study and randomized into two groups: Group T (metroplasty with intrauterine palpator) (n = 45) and Group C (metroplasty without intrauterine palpator) (n =45). Ambulatory hysteroscopic metroplasty was performed under conscious sedation using a 5mm hysteroscope and miniaturized 5Fr instruments: (a) bipolar electrode for the removal of ¾ of the septum; b) blunt scissors to refine the base of the septum; c) intrauterine palpator to measure the portion of the septum that has been removed (only Group T). 3D TVS and second-look hysteroscopy were used to identify the number of complete (residual septum ≤ 5 mm), suboptimal (residual septum 5-10 mm) or incomplete resections (residual septum > 10 mm). In Group T, the metroplasty was stopped when the intrauterine palpator showed that the resected septum corresponded to the presurgical ultrasonographic measures in order to obtain a fundal notch of 1.0 cm. In Group C, the metroplasty was interrupted once the tubal ostia were clearly visible on the same line and/or hemorrhage from small myometrial vessels of the fundus was observed.

Results

No differences were observed in baseline characteristics between the two groups. The proportion of patients with complete septum resection was significantly higher in group T (71.5% vs. 41%, chi-squared p = .006; RR 1.684 95%CI 1.116-2.506. Suboptimal resection was achieved in 13 cases (28.5%) in group T and 14 cases (20%) in group C, while incomplete resection was observed only in 12 patients (59% in group C).

Conclusions

An accurate presurgical evaluation with 3D-TVS together with the use of a graduate intrauterine palpator facilitates the complete removal of uterine septum, in one surgical step.

ES24-0218
BSA3

Complication During Pregnancy and at Delivery in Patients Affected by Posterior Deep Infiltrating Endometriosis (Die)

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Background

To analyze the outcome and complications during pregnancy and delivery in patients with posterior DIE diagnosed at transvaginalsonography(TVS) and confirmed through laparoscopyprior to pregnancy.

Methods

This retrospective study is supported by chart data and informations collected via follow up interviews of patients treated at different University hospitals. Patients less than 40 years old, desiring pregnancy and with posterior DIE diagnosed by the means of TVS and confirmed by laparoscopy and histology were included in this study. All the patients showed at TVS a posterior DIE nodule with the largest diameter of more than 2 cm. All had at least one laparoscopy, which describes DIE without total resection of the lesions but with histological confirmed endometriosis. Pregnancy outcomes and complications during pregnancy and at delivery are described. Patients were collected from medical charts and by phone interviews

Results

101 patients with a posterior DIE nodule were included in this study, 52 of these got pregnant whereas 49 despite assisted reproductive technologies ART remained infertile. 25 patients out of 52 (48%) conceived with ART. Outcomes of the 52 pregnancies were in 13 cases a spontaneous abortion in the first trimester and in 41 cases a live born baby. In these 41 pregnancies we observed 13 (31.7%) preterm deliveries<37 weeks, 7 (17%) cases of placenta previa and 6(14%) patients were hospitalized for abdominal pain. At delivery 68%(28) of patient had a C-section and 12 important complications were reported: 2 hysterectomies, 4 extended adhesiolysis with 2 salpingectomies, 2 bladder lesions and a bowel resection. Also at vaginal delivery a vaginal laceration that caused a severe post-partum haemorrhage was described.

Conclusions

Our analysis highlights that patients with posterior DIE show high complications rate during pregnancy and delivery and high infertility. Given the nature of the complications it is possible to assume that they were often correlated to DIE and probably were underestimated in the counselling and management of these patients.This study indicated that pregnancy does not improve nor resolve DIE condition, in other words the endocrine environment of pregnancy is not preventing the activation of the disease and its complications.

ES24-0222
BSA4

Uterine Artery Embolization Versus Hysterectomy in the Treatment of Symptomatic Uterine Fibroids: 10-year Outcome From the Randomized Emmy Trial.

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Background

The purpose of this study was to compare clinical outcome and health related quality of life (HRQOL) 10-years after uterine artery embolization (UAE) or hysterectomy in the treatment of abnormal menstrual bleeding caused by uterine fibroids in a randomized controlled trial.

Methods

Twenty- eight Dutch hospitals recruited patients with symptomatic uterine fibroids who were eligible for hysterectomy. Patients were 1:1 randomly assigned to UAE or hysterectomy. The assessed after 10 years were re-intervention rates and HRQOL which were obtained through validated questionnaires.

Results

The randomized groups consisted of 88 women allocated UAE and 89 women allocated hysterectomy : 81 UAE and 75 hysterectomy patients underwent the allocated treatment. The remaining patients withdrew from the trial. Mean follow up was 133 months (SD: 8.58). Questionnaires were received of 131/156 patients (84%). 10 years after treatment 35% of UAE patients (28 of 81) had undergone a secondary hysterectomy (24/77 (31%) after successful UAE). Secondary hysterectomies were performed due to persistent complaints in all cases but one (1 for prolapse). The 10 year follow up general HRQOL remained stable, without differences between both groups. This occurred after significant improvement of HRQOL after the initial treatment. The UDI (urogenital distress inventory) and the defecation distress inventory showed a decrease in both groups, probably related to increased age, without significant differences between study arms.

Conclusions

HRQOL 10 years after UAE or hysterectomy remained comparably stable in both groups. In approximately two-third of UAE treated patients with symptomatic uterine fibroids a hysterectomy could be prevented. The patient should be counseled on this.

ES24-0347
BSA4

Morcellation for Uterine Tissue Extraction: the Implementation of the Insufflated Isolation Bag Technique.

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Background

The objective of this study is to describe the adoption of the contained power morcellation technique within an endoscopic bag at the time of uterine specimen removal during laparoscopy. The main outcomes were to assess complications and the influence in operating time during myomectomy and laparoscocopic supracervical hysterectomy (LSH).

Methods

This study is based on a retrospective chart analysis of patients who underwent a LSH or laparoscopic myomectomy from August 2014 to May 2015 in a single academic tertiary care hospital. All specimens were in-bag morcellated and extracted using the 3M Health Care Isolation Bag Steri Drape 50X50 (Ref. 1003)®.
Demographic, clinical, surgical and hystopathological data were collected from medical history. Data analysis was done with SPSS 17.0.

Results

There were included 34 cases, 18(52.9%) LSH and 16 (47.1%) myomectomies. In-bag morcellation and tissue extraction was successfully used in all cases. The mean age was 40.8 years (range from 25 to 58 years, SD 5.9), 97.1% were non menopausal. 50% of patients had at least one prior abdominal surgery (half of them were laparotomies). Main symptoms were bleeding (n=22, 64.7%) and abdominal pain (n= 6, 17.6%). There were no cases of unexpected malignancy or conversion to laparotomy. The surgical complication's rate was 11.8% (n=4). In two cases the bag was perforated. One case occurred when introducing the bag in the peritoneal cavity and was necessary to use another one to complete the procedure. The other case was when extracting the morcellated specimen from cavity. There were no complications derived from the specimen retrieval bag itself. Mean blood loss for hysterectomies was 142 ml and for myomectomies was 474 ml. For the LSH the mean surgical specimen's weight was 313,457g and 113,9g for myomectomies. The median operating time for LSH was 168min (range 100 to 390min) and for myomectomies 182min (range 120 to 330min). Operating time analyzed for each trimester of the study was significantly shorter whenever more patients were operated using the contained morcellation technique (180 minutes vs 145 vs 120, $p<0.05$). For LSH using the open power morcellation technique (operated in 2013) the mean operating time was 150min.

Conclusions

In our experience LSH and myomectomy using power morcellation in an endoscopic bag is a safe and feasible technique. Operating time could be longer at the beginning compared with not contained morcellation, but it can be reduced with further refinement of the technique. The insufflated isolation bag could be an option to minimize tissue's dissemination risk.

ES24-0491
BSA4

Comparison of Morcellation Techniques During Laparoscopic Hysterectomy and Myomectomy

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Background

To compare perioperative outcomes and recovery profiles of three common approaches to specimen retrieval at the time of minimally invasive hysterectomy and myomectomy.

Methods

A retrospective analysis was performed on a cohort of all women who underwent minimally invasive hysterectomy or myomectomy for benign disease at a tertiary care academic hospital in 2014. The three specimen retrieval techniques which were compared include: power morcellation (both with and without the use of a containment bag), manual morcellation via minilaparotomy and manual morcellation via colpotomy. Total laparoscopic hysterectomy (TLH), laparoscopic supracervical hysterectomy (LSH) and laparoscopic myomectomy (LM) were performed in standard fashion. Data recorded and analyzed include type of morcellation, size of minilaparotomy incision, use of containment bag, operative time, estimated blood loss, time for morcellation, length of hospital stay and intra- or postoperative complications. Patient characteristics and surgical outcomes between treatment groups were compared using Chi-square and ANOVA tests. In addition, multivariable adjusted logistic and Poisson regression were performed to estimate the association between type of morcellation and surgical outcomes.

Results

Two-hundred and ninety-seven women were included in the analysis (62 TLH, 98 LSH, 137 LM). No significant differences were seen among the groups with regard to age, race, BMI or prior surgeries. After adjusting for baseline factors, there was no significant difference with regard to mean total operative time (141, 95% CI=131,150; 159, 95% CI=138,180 and 150, 95% CI=139,161 minutes, respectively for power morcellation, vaginal morcellation and minilaparotomy morcellation) or length of stay. Women who received vaginal morcellation, were twice as likely to have a complication compared to those who had power morcellation, though the association was not significant (OR=2.10, 95% CI=0.42, 10.4). There was a three-fold increase in the odds for a complication in the minilaparotomy group (OR=3.05, 95% CI=1.04, 8.99) compared to the power morcellation group. Although not statistically significant, the minilaparotomy group had a higher mean time for morcellation (52.44min ±19.07) than both the vaginal morcellation group (50min ±17.32) and the power morcellation group (32.71min ±27.26), (P=0.09).

Conclusions

Cases performed with power morcellation were associated with fewer complications compared to minilaparotomy. There were no significant differences found among the three morcellation techniques with regard to operating time, length of hospital stay or time required for morcellation.

ES24-0313
BSA4

A Retrospective Review of Factors Associating with Leiomyoma Recurrence and Repeat Surgery After Laparoscopic Myomectomy: Long-term Follow-up 217 Cases at a Single Institution.

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Background

Laparoscopic myomectomy is commonly performed less invasive surgery for symptomatic uterine leiomyoma. Major concerns of postoperative follow-up are leiomyoma recurrence, symptomatic exacerbation and repeat surgery, however, independent risk factors are still elusive. The aim of this study was to evaluate the factors associating with recurrence and reoperation after laparoscopic myomectomy and establish appropriate postoperative management and follow-up.

Methods

217 cases of laparoscopic myomectomy performed at the Juntendo University Hospital from 2000 to 2004 were studied retrospectively. All cases had a long-term follow-up with clinical examination and transvaginal ultrasound after surgery. Factors associating with leiomyoma recurrence, symptomatic exacerbation and repeat surgery during a 9-year follow-up period were reviewed. Recurrence was defined as appearance of leiomyoma larger than 2cm by ultrasound examination.

Results

The 9-year cumulative rates for leiomyoma recurrence, symptomatic exacerbation and repeat surgery were 73.6%, 34.1% and 13.4%, respectively. The number of resected interstitial / submucosal leiomyoma significantly increased the risk of recurrence whereas getting pregnant after laparoscopic myomectomy significantly reduced the risk of recurrence. Significant risk factors for symptomatic exacerbation were age and number of interstitial / submucosal leiomyoma at the time of recurrence. Age at the time of symptomatic exacerbation was significantly younger in cases with repeat surgery. Age and the number of resected interstitial / submucosal leiomyoma at the time of initial surgery were not independent risk factor for symptomatic recurrence and repeat surgery.

Conclusions

The cumulative rates for symptomatic exacerbation and repeat surgery were relatively low although recurrence of leiomyoma frequently occurred. Since serious recurrences mostly occurred as long-term complication and no independent risk factors were identified from initial surgery observation, long-term follow-up was considered to be crucial for early recognition.

ES24-0072
BSA4

Parasitic Myoma After Laparoscopic Morcellation: a Systematic Review of the Literature

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Background

Laparoscopic morcellation is frequently used for tissue removal after laparoscopic hysterectomy or myomectomy and may result in parasitic myomas, due to seeding of remained tissue fragments in the abdominal cavity. However, little is known about the incidence and risk factors of this phenomenon. This study aimed to identify the incidence and risk factors for the development of parasitic myoma after laparoscopic morcellation.

Methods

A systematic review of the literature in Pubmed(MEDLINE) and Embase was conducted. Reference lists of identified relevant articles were checked for missing case reports. Studies reporting on incidence or cases of parasitic myoma diagnosed after laparoscopic morcellation were selected. Studies were excluded when history of laparoscopic morcellation was lacking or final pathology demonstrated a malignancy or endometriosis. Data were extracted and analysed on incidence of parasitic myomas and characteristics of case reports.

Results

Fourty-four studies were included in this systematic review. A total of 69 patients diagnosed with a parasitic myoma after laparoscopic morcellation were identified. Mean age was 40.8 (+ 7.5) years (range 24 – 57), median interval between surgery and diagnosis was 48.0 months (range 1-192) and the mean number of parasitic myomas was 2.9 (+ 3.3), (range 1-16). The overall incidence of parasitic myomas after laparoscopic morcellation was 0.12% - 0.95%. Steroid exposure after laparoscopic morcellation might be a risk factor for development of parasitic myomas. Rapid growth of a parasitic myoma during pregnancy was reported as well as the presence of progesterone receptors in parasitic myomas and previously removed myomas.

Conclusions

Although the incidence is relatively low, it is important to discuss the risk of parasitic myoma after laparoscopic morcellation with patients and balance towards alternative treatment options. The duration of steroid exposure after laparoscopic morcellation might be a risk factor for development of parasitic myomas.

ES24-0501
BSA4

Preventing Sarcoma Morcellation : Predictive Value of MRI and Comprehensive Strategy to Treat Fibroids by Minimally Invasive Techniques in a Continuous Cohort of 3056 Patients

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Background

The diagnosis of sarcoma is chllenging prior to fibroid treatment by minimally invasive techniques including laparoscopic myomectomy and morcellation, vaginal morcellation or futerine artery embolization.

Methods

Objective: We present a comprehensive strategy to diagnose sarcomas prior to Minimally Invasive

Surgery (MIS) among a continuous cohort of 3056 patients referred for fibroid treatment

Design: Prospective study (Canadian Task Force classification II-3)

Setting: University Hospital, Tertiary Center

Patients: 3056 patients for treatment of fibroids between 01.01.2002 and 01.01.2015

Interventions: All patients had a clinical examination, endometrial sampling, office hysteroscopy, pelvic ultrasound, MRI. Patients were treated by Uterine Artery Embolization (UAE), hysteroscopy, laparoscopy, a combined procedure first described in 2002 (CESAM), vaginal procedure or by laparotomy. Every diagnosis of uterine sarcoma or uterine smooth muscle tumors of uncertain malignant sele (STUMP) was reviewed by a panel of senior pathologists.

Results

Measurements & Main Results: 3056 patients were referred for treatment of uterine fibroids during a13 years period. Patients were from over 20 different ethnical origins. Among them 633 patients weretreated by laparoscopy, 268 patients with a vaginal procedure, and 274 patients by UAE. Eleven patientshad a final diagnosis of uterine sarcoma. None of them was treated by a minimally invasive procedurenor had a uterine morcellation. When a unique uterine mass was assessed by MRI, the Positive andNegative Predictive Value of Malignancy or STUMP was 100% respectively. No hazard due to uterine ormyoma morcellation by laparoscopy or vaginal route with an unrecognized sarcoma was reported.

Conclusions

The incidence of uterine sarcoma in a continuous population of 3056 patients referred for treatment of fibroids was 0.35%. All sarcomas had a suspected diagnosis of malignancy or cellular fibroid prior to surgery. No hazard was reported due to the morcellation of an unrecognized sarcoma. With unique uterine masses, MRI alone had a PPV and NPV of 100% to diagnose uterine sarcomas or STUMP. The combination of clinical history, MRI, endometrial sampling and hysteroscopy could help in counseling and preventing from accidental morcellation of a malignancy. AAGL - Abstract Submission Site Page 3 of 3 http://

ES24-0470
BSA4

Taking the Red Pill or the Blue Pill - How to Turbo Charge Our Laparoscopic Skills Using Neurofeedback

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Background

Since the EWTD was fully implemented in 2009, it has become apparent that the experiential model of learning has to change dramatically, if the NHS is to continue to produce safe and well-trained surgeons in this changing environment.

Attention, concentration, focus and emotional balance are key to peak performance in all areas, including laparoscopic surgery. Neurofeedback is direct quantification and training of brain function, it is brainwave biofeedback, allowing you to learn how to maintain brainwave activity associated with optimal brain function.

We present the application and promising results of brainwave training on enhanced performance of basic laparoscopic skills, consolidated by neuroplasticity.

Methods

Our proposed system utilises a state-of-the-art Bluetooth EEG biosensor headset, the NeuroSky MindWave. A high-end laptop is required for data capture and data processing. Sophisticated software is used to detect the full range of brainwave activity and analyse this data using complex algorithms.

Six trainee doctors with varying levels of laparoscopic experience were randomized into either receiving neurofeedback therapy prior to basic laparoscopic skills training or just receiving skills training.

The test group took part in a daily session of brainwave training, for three days.

The completion of simple tasks on a box trainer was timed on day four, to compare, if the application of neurofeedback sessions improved performance in the test group.

Results

The test group showed up to 12% improvement in the performance of simple, directed tasks.

Conclusions

Neurofeedback therapy can play a vital role in achieving peak performance levels during laparoscopic skills training.

ES24-0545
BSA4

Box Trainers Versus Virtual Trainers? A Prospective Randomised Control Trial Comparing Training Methods for a Laparoscopic Salpingectomy

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Background

Simulation training enables trainees to develop their practical skills in a safe environment with no harm to patients. Thus providing a solution for trainees to become competent within a shortened time frame whilst minimizing surgical error rates. Access to simulation facilities would provide trainees the opportunity to individualise training needs and skill acquisition within a risk free environment.

The objectives of this study was to determine (1) whether virtual reality simulators (VRS) alone are superior to standard box trainers (BT) with immediate trainer feedback (2) to evaluate whether skills learnt on one training method are transferable to another.

Methods

A randomised control study, conducted over a 4-week period at a large teaching hospital was undertaken. 40 medical students were randomised to 3 groups. Group 1: control group with no training. Group 2: 2 sessions using a BT supervised. Group 3: 2 sessions on a virtual reality simulator (VRS). An introductory questionnaire including age, gender, dominant hand and video game experience was completed. All groups observed a proficient laparoscopic surgeon performing basic laparoscopic tasks on a BT (cutting circles, salpingectomy for ectopic pregnancy simulated as balloon uterus and tube with gauze representing ectopic). Group 1 received no additional training following initial observation of the task. Group 2 received 2 sessions of 30 minutes mentored box training. Group 3 received initial 10 minute induction on use of VRS (CAE healthcare VR lap simulator), followed by 2 self training sessions of 30 minutes each. All participants were independently assessed 3-4 weeks after their initial demonstration session. All group were quantitatively assessed performing a laparoscopic salpingectomy on both a porcine cadaver and VRS. Objective parameters measured included time, precision, accuracy and overall performance. Participants, in a bid to assess individual insight into operative performance, also completed a post study questionnaire.

Results

Preliminary results show that not all skills were transferable from the VRS however skills learnt on the box trainer (VT) were reproducible on the VRS. Data is expressed as a percentage mean score/ time and analysed using student's paired t test.

Conclusions

Preliminary results show that not all skills were transferable from the VRS however skills learnt on the box trainer (BT) were reproducible on the VRS. VRS requires less supervision however BT showed better transferrable skills. Training of both VRS and BT improves operative performance and increases trainees confidence therefore we recommend that this should be incorporated into gynaecology core training. Early exposure to simulation and box trainer can identify students who have either a natural skill and those who can be taught and develop these skills. It is important to combine BT and VRS with mentor guidance so that correct techniques are learnt early and can be built upon.

ES24-0094
BSA4

Laparoscopic Myomectomy (Lm) Versus Laparoscopic Radiofrequency Volumetric Thermal Ablation (Rfvta) of Symptomatic Fibroids: Two-year Results From a Randomized Trial of Uterine-sparing Techniques

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[1]*University Hospital, Department for Women's Health, Tübingen, Germany*
[2]*Newton-Wellesley Hospital, Department of Obstetrics and Gynecology, Newton, USA*

Background

Compare two-year subject-reported outcomes after LM and RFVTA.

Methods

This ongoing study was designed as a randomized, prospective, single-center, longitudinal, analysis of LM to RFVTA at 24 months of follow-up. Fifty premenopausal women ≥ 18 years old with symptomatic fibroids who desired uterine conservation and reproductive function and who were indicated for surgical intervention for their fibroid symptoms were intraoperatively randomized (1:1) to either LM or RFVTA at a university hospital in Germany.

Results

Consented subjects were randomized intraoperatively to LM or RFVTA after laparoscopic (contact) ultrasound mapping of their fibroids. Thirty-seven subjects (LM: n = 20; mean age, 34.4 ± 6.1 years; RFVTA: n = 17; mean age, 40.0 ± 7.8 years) were followed to 24 months. Mean transformed symptom severity scores improved (decreased) for the LM subjects by –46.2% from the mean baseline value to 21.1 ± 18.0 [95% CI: 12.3–29.8] at 24 months. Over the same period, mean transformed symptom severity scores improved (decreased) for the RFVTA subjects by –58.3% to 16.5 ± 15.8 [95% CI: 8.1–24.9]. At 24 months, health-related quality-of-life (HRQL) scores improved (increased) over baseline for LM subjects by 13.9% to 84.9 ± 20.4 [95% CI: 75.1–94.7] and, for RFVTA subjects, by 15.4% to 88.8 ± 13.2 [95% CI: 81.8–95.9]. Mean EuroQol-5D health state scores improved (increased) from baseline for LM subjects by 18.0% to 84.9 ± 16.9 [95% CI: 76.8–93.0] and for RFVTA subjects by 3.2% to 85.1 ± 9.9 [95% CI: 80.0–90.2]. Both LM subjects (88.9%) and RFVTA subjects (82.4%) reported being moderately to very satisfied with their treatments. Of the LM subjects, 94.4% reported that would probably or definitely recommend the treatment to a friend with fibroid symptoms; 94.1% of RFVTA subjects reported a like recommendation. Moderate-to-very-effective elimination of symptoms was reported by 83.3% of LM subjects and by 88.2% by RFVTA subjects. Three RFVTA subjects conceived: two pregnancies concluded with vaginal deliveries of healthy infants and one pregnancy is ongoing. Five LM subjects conceived six times. One LM pregnancy ended in a therapeutic abortion; two pregnancies concluded with vaginal deliveries; two pregnancies were followed by Cesarean deliveries; and one pregnancy is ongoing.

Conclusions

Long-term data confirm the equivalence in the clinical efficacy of RFVTA to laparoscopic myomectomy. Laparoscopic RFVTA should be considered for patients with symptomatic uterine fibroids who desire uterine and reproductive conservation.

ES24-0436
BSA4

Laparoscopic Sacrocolpopexy: Where to Stop the Anterior Dissection?

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Background

Pelvic organ prolapse (POP) is a common condition seen in more than 30% of multiparous women. Laparoscopic sacrocolpopexy (LSCP) is the reference technique for the repair of POP. However, we lack data on the impact of the level of mesh on the anatomical correction of POP. The objective of our study is to describe the anterior mesh position after LSCP using ultrasound, and to study its correlation with the anatomical result after surgery.

Methods

All patients who underwent LSCP since January 1, 2015 were included in a prospective descriptive bi-center study. Women with a history of surgery for POP were excluded. Vesicovaginal dissection was systematically conducted under the level of the urinary catheter balloon, locating the bladder neck. At the end of the operation, the distance between the anterior mesh and bladder neck (Bladder Neck-Mesh distance=BMD) was measured by transvaginal ultrasound (Fig 1). To improve the quality of results, measurements were repeated 3 times to calculate an average. The assessment of POP preoperatively and 1 month after surgery was performed using the POP-Q (ICS).

Results

To date, among the 34 patients included in our study, the POP-Q was assessed one month after the surgery in 26 patients. The average of the BMD was 5.58 mm +/- 2.88 mm. The BMD was significantly correlated to the anatomical result with a p value=0.019, and the patients' satisfaction, measured using the PGI-I score, was significantly better when the mesh is fixed more caudally (p value = 0.013). No major complications were diagnosed in the patients operated and "de novo" stress urinary incontinence occurred in 17.6% of the patients operated and seen after surgery.

Conclusions

Literature is particularly poor on the description of the position of the meshes placed by LSCP and anatomical correction of POP. Anterior mesh visualization after LSCP using transvaginal ultrasound is easy and feasible. The balloon of the urinary catheter facilitates the identification of the bladder neck. BMD appears to be a reliable method to describe the anterior mesh position. The BMD is significantly correlated to the anatomical results and the patients' satisfaction after surgery.

SELECTED ABSTRACTS FOR VIDEO PRESENTATION (10)

ES24-0058
Best Selected Videos

Measures to control bleeding during laparoscopic operations to reduce conversion to laparotomy

S. Yanai[1], M. Andou[1], S. Nakajima[1], S. Kurotsuchi[1], Y. Ota[1]
[1]Kurashiki Medical Center, Gynecology, Kurashiki, Japan

Background

The application of immediate pressure and suturing is difficult during strong bleeding in laparoscopic operations compared with open surgeries. Although a conversion to laparotomy can be necessary, hemostasis during laparoscopy may reduce the burden on the patient.

Methods

We think that the most important steps for hemostasis during laparoscopic operations involve getting hold of the bleeding point immediately and not panicking. In addition, it is important to keep the field of vision clear and to make the anatomical position clear. After this initial step, it is possible to plan a strategy such as using gauze pressure, suturing, vessel clips, or other techniques. Sometimes we use local hemostatic devices such as TachoSil® or SURGICEL® to control intraoperative bleeding.

Results

As a result of using these techniques, in our 3314 laparoscopic surgeries over 3 years (2011-2014), there were only 2 cases that required a conversion to laparotomy due to severe bleeding, and only 1 case needed a blood transfusion.

Conclusions

We can deal with various bleeding scenarios if we know a lot of hemostasis methods. In this video, we will show hemostatic strategies in various situations in laparoscopic surgery.

http://player.vimeo.com/video/127216497?autoplay=1

ES24-0101
Best Selected Videos

Vascular network and innervation in pelvis for laparoscopic radical hysterectomy
Y. Shiki[1]
[1]*Osaka Rosai Hospital, Osaka, Japan*

Background

Voiding difficulty is one of the important complications of radical hysterectomy. Surgical intervention is preffered especially in non-squamous bulky cases of cervical cancer because CCRT is not likely to be effective. In such cases, surgical management of posterior leaf of vesicouterine ligament is required. Magnifying power of endoscope and easier access to deep area in pelvic cavity consists of the potential advantage of laparoscopic surgery in radical hysterectomy for cervical cancer. Reduction of urinary complication is expected by detailed understanding of the structure of vesicouterine ligament that is the complex of vesical vein network and vesical nerve branch by using this advantage of endoscope.

Methods

We enrolled 8 patients of cervical cancer stage 1b-2a between January 2013 and December 2014 for laparoscopic radical hysterectomy.

Results

Average operation time was 4 hour 53 minutes and average blood loss was 214ml. Average pelvic LN retrieval was 25 and post operational hospital stay was 10 days. Construction of anterior and posterior leaf of vesicouterine ligament, such as cervicovesical vessel and vesical veins, is isolated in every case as shown in the video due to the magnifying power of endoscope and easier access to deep area in pelvic cavity. A case of stage 1b2 cervical cancer treated with laparoscopic radical hysterectomy, 5cm of tumor size, is also presented.

Conclusions

Magnifying power of endoscope and easier access to deep area in pelvic cavity helps the delicate touch and technique in managing vesicouterine ligament. Knowledge of venous pathway from bladder and uterine cervix and structure of vesicouterine ligament is helpful to minimize hemorrhage in radical hysterectomy. Transection of vesical veins with minimal times of coagulation procedure while keeping the identified vesical nerve branch is essential for saving voiding function while maintaining radicality of hysterectomy.

http://player.vimeo.com/video/127714289?autoplay=1

ES24-0144
Best Selected Videos

Lumbo-aortic lymph nodes dissection in 10 steps.
M. Artola[1], *P. Chauvet*[1], *B. Rabischong*[1], *M. Canis*[1], *N. Bourdel*[1]
[1]*CHU Estaing, Gynecology, Clermont-Ferrand, France*
Background

This video shows 10 essential steps to performed transperitoneal lumbo-aortic lymphadenectomy from the peritoneal incision to the complete lymph nodes dissection including the adequate exposure of the anatomic structures.

Methods

An infrarenal paraaortic lymphadenectomy is part of the staging and treatment of most of the gynecologic malignancies. The lumbo-aortic lymphadenectomy can be divided in four areas: common iliac vessels and presacral nodes, lateral-aortic and preaortic nodes, inter-aorto-caval nodes and lateral-caval and precaval nodes. We describe 10 fundamental steps to perform a complete lumbo-aortic lymphadenectomy.

- Step1: By relying on **anatomical landmarks** (right ureter crossing iliac bifurcation, promontory and the aortic bifurcation) a good exposure and the correct surgical planes of dissection can be found.

- Step2: A **horizontal peritoneal incision** (until the left ureter) allows in many cases a better exposition. This incision goes from the crossing point of the right ureter and right external iliac artery to the left common iliac bifurcation.

- Step3: Presacral and Common iliac lymphadenectomy.

- Step4: New Position. The suspension of the peritoneum by T-lift devices is a useful to achieve an adequate exposure of the surgical field, performing a peritoneum tent. The surgeon stands between patient's legs.

- Step5: To create the operative field under the tent
In this step is essential to separate lymph nodes and fat tissue from mesenteric root and the peritoneum.

- **Step6: Lateral landmarks identification**.
* Right ureter and right ovarian vein
* Left ureter and left ovarian vein.

Once you get all your landmarks, you can start the lymph nodes dissection.

- Step7: Lateral-aortic Lymphadenectomy.

- **Step8: Inter aortic-caval lymphadenectomy**.

- Step9: Latero-caval Lymphadenectomy .

- Step10: Lymphostasis, hemostasis, T-lift removal.

Results

.

Conclusions

A key point in the development of the use of laparoscopy is probably to make it simpler. Systematization of every procedure is probably one part of the answer. We describe a complete lumbo-aortic dissection in 10critical steps.

http://player.vimeo.com/video/127927814?autoplay=1

ES24-0231
Best Selected Videos

Laparoscopic management of a ruptured intra-myometrial ectopic pregnancy
P. Chauvet[1], C. Bertolotti[1], R. Botchorishvili[1], S. Campagne-Loiseau[1], N. Bourdel[1]
[1]CHU Estaing, Gynecologic Surgery, Clermont-Ferrand, France

Background

Ectopic pregnancy is still the most common cause of first trimester maternal death. Intramural ectopic pregnancy is a rare form of ectopic pregnancy, more difficult to diagnose and potentially more dangerous. It's associated with mortality rates 2 times higher than other ectopic pregnancy (the maternal death rate is approximately 2.5% when uterine rupture develops).

Methods

A 37 year-old patient gravid 1, para 0, at 12 weeks and 5 days of amenorrhea was admitted with acute lower abdominal pain, no abnormal uterine bleeding. Previous medical history included Tuberous sclerosis and bilateral nephrectomy with renal transplantation. Clinically, she didn't present abdominal guarding, no signs of hemodynamic instability. Ultrasound showed an aspect of normal intrauterine pregnancy with one embryo 60mm with cardiac activity, and showed a large hemoperitoneum. The hemoglobin level was 8g/dL. We decided to surgically explore this unkown origin hemoperitoneum.

Results

A laparoscopic approach was decided. Pneumoperitoneum was created after insertion of a Veress needle in left hypochondrium, as well as the first optical 5 mm trocar. Three operative 5 mm trocars were then inserted under visual control. A careful inspection revealed an large hemoperitoneum (2 l), an asymmetrically enlarged uterus with a swollen fundus, the fallopian tubes, and the ovaries appeared normal. Mobilizing the posterior surface of the uterus, we saw that this hyper-vascularized area corresponding to a uterine rupture induced by an intra-myometrial interstitial pregnancy. A 10 mm optical trocar was inserted into the umbilicus, one additional trocar 10 mm along the median line. The mobilization of the uterus increased bleeding, and induced externalization of the placenta and the fetus. The fetus and the placenta were placed into an endoscopic bag, and we completed the placenta aspiration. Then, we ensured hemostasis using large sutures of Vicryl 1. The plan was to achieve the hemostasis and to propose a careful uterine repair during a second look laparoscopy. We put a Shirley drain into the peritoneal cavity, and then extracted the embryo enlarging the 10 mm trocar. In total, she received 4 red blood cells transfusion and two fresh frozen plasma. The postoperative course was uneventful, the patient was discharged home on postoperative day 3. The second look has not yet been performed as the patient is still afraid of the potential complication of a new pregnancy.

Conclusions

Intramyometrial pregnancies can be difficult to diagnose and can sometimes be missed. It's a rare but potentially fatal diagnosis, so it's important to consider this diagnosis in all case of hemoperitoneum during pregnancy. Surgical management can be safely performed by laparoscopic approach, even in presence of hemoperitoneum.

http://player.vimeo.com/video/129451998?autoplay=1

ES24-0237
Best Selected Videos

Total laparoscopic radical trachelectomy using ultra-fine laparoscopic instruments.

M. Andou[1], *S. Yanai*[2]
[1]*Kurashiki Medical Center, Kurashiki-shi, Japan*
[2]*Kurashiki Medical Center, Gynecology, Kurashiki-shi, Japan*

Background

Our total laparoscopic radical trachelectomy is characterized by the full resection of the cardinal ligament at the pelvic sidewall. This degree of radicality is performed to prevent the possibility of recurrence which, although rare, has been reported. The demand for fertility sparing procedures has risen dues to the increase in younger women contracting cervical cancer, making the development of fertility sparing and minimally invasive techniques important.

Methods

Our technique requires two 2mm and two 5mm abdominal ports and a 12mm vaginal port. The ultra-fine instruments used are assembled inside the body. By using ultra-fine instruments, we are able to reduce the invasiveness of the surgery by reducing the size of the ports, without increasing the degree of difficulty, as can be the case when the number of ports are decreased.

Results

Radical trachelectomy is an important procedure for patients wishing to preserve their fertility and this procedure offers the patient a minimally invasive, cosmetically appealing result. The patients recorded less postoperative pain, no patients required blood transfusion and no cases underwent conversion to laparotomy and no serious complications occurred.

Conclusions

This procedure offers an ultra- minimally invasive alternative for patients who must undergo radical surgery and wish to preserve their fertility.

http://player.vimeo.com/video/129561287?autoplay=1

ES24-0258
Best Selected Videos

Laparoscopic approach for diaphragmatic and pleural endometriosis

N. Bourdel[1], A. Girard[2], B. Rabischong[2], R. Botchorishvili[2], M. Canis[2]
[1]Chu Estaing, Clermont-Fernand, France
[2]Chu Estaing, Gynecological surgery, Clermont-Fernand, France

Background

Isolated diaphragmatic endometriosis with deep lesions involving the entire thickness of the diaphragm is a rare entity. Most of transdiaphragmatic approach includes a postoperative chest drainage and moreover a laparotomy. We described our technique for diaphragmatic resection using a exclusive laparoscopic approach without postoperative drainage.

Methods

We report a case of a 28 years old patient with exclusive diaphragmatic nodule. She described menstrual right shoulder and right chest pain. MRI revealed diaphragmatic lesion involving the entire thickness of the diaphragm without pelvic endometriosis. We used four 5 mm trocars (epigastric, right hypogastric, right and left side of umbilicus) and one transumbilical 10 mm trocar. Specific instrumentation included a laparoscopic liver retractor and a Harmonic scalpel. Superficial diaphragmatic implants were cauterized. Partial resection of the right diaphragm was performed with opening of the pleural cavity. Simple interrupted sutures were performed using a non-absorbable 1-0 polypropylene. Extracorporeal knot were used. At the end of the suture, a loop stitch was placed but not tied. A gastric catheter was placed inside the loop. The anesthesiologist performed large-volume ventilations and a Valsalva maneuver. Suction was maintained in the gastric catheter. The catheter was gently removed as the remaining loop suture was tied. No chest or abdominal drain was left.

Results

Postoperative course was unremarkable and she was discharged home on post-operative day 3. She was pregnant three months later and she delivered normally at term.

Conclusions

The treatment of deep endometriotic lesions involving the entire thickness of the diaphragm is possible using an exclusive transdiaphragmatic laparoscopic approach. As the resorption of CO2 is possible by the pleura and intraoperative drainage is feasible, no postoperative drainage is necessary.

http://player.vimeo.com/video/129708196?autoplay=1

ES24-0319
Best Selected Videos

A method of ureter identification in total laparoscopic hysterectomy

Y. Ota[1], M. Andou[1], S. Yanai[1], S. Nakajima[1], S. Kurotsuchi[1]
[1]Kurashiki Medical Center, Dept. of Obstetrics and Gynecology, Kurashiki, Japan

Background

While laparoscopic surgery has the advantage of being minimally invasive, it involves a risk of damaging surrounding organs due to anatomical misrecognition related to the loss of a sense of depth. In total laparoscopic hysterectomy (TLH) in particular, it is considered that ureteral damage is more common with laparoscopic surgery compared to laparotomy.

Methods

We avoid such damage by identifying the ureter in the early stage, and perform TLH with the ureter always being visualized. We approach from the anterior of the round ligament to identify the ureter in TLH. We discuss the approach to identify the ureter safely and quickly using the lateral umbilical ligament as an indicator.

Results

The point of approach to the ureter was measured using the lateral umbilical ligament as an indicator. The approach point was determined to be 1 cm inside the lateral umbilical ligament.

Conclusions

The anterior approach has the advantage that is unlikely to be affected by adhesion or the size of the uterus, but its associated surgical view is unique to laparoscopic surgery, and it takes practice to get used to.Therefore, visualizing the indicator facilitates a safe approach. An anterior approach from 1 cm inside the lateral umbilical ligament enables us to identify the ureter quickly and safely.

http://player.vimeo.com/video/129961010?autoplay=1

ES24-0359
Best Selected Videos

Minilaparoscopic sacrocervicopexy after supracervical hysterectomy and specimen extraction through posterior vaginal cul de sac (NOSE)

H. Ferreira[1]
[1]*Centro Hospitalar do Porto, Porto, Portugal*

Background

Pelvic organ prolapse (POP) affects millions of women; Reconstructive surgery surgically corrects the genital prolapse and aims to restore normal anatomy. Sacrocervicopexy is a procedure similar to sacrocolpopexy, in which a graft material is used to suspend the cervix to the anterior longitudinal ligament of the sacrum. Sacrocervicopexy can be performed either with uterine preservation or after supracervical hysterectomy. This procedure definitely avoids the risk of mesh erosion. Moreover, it preserves the integrity of the uterosacral and cardinal ligaments, which are the main supports of the vaginal apex. Minilaparoscopy reemerged has an even better approach involving the use of miniaturized scopes and instruments to further reduce perioperative morbidity and enhance cosmetic healing.

Methods

Design: We report a video explaining the technique and evaluated the effectiveness of our first four cases of microlaparoscopic subtotal hysterectomy and sacrocervicopexy to resolve pelvic organ prolapse, mainly of central compartment prolapse with posterior cul-de-sac specimen extraction. We assessed the reduction of prolapse-related symptoms, operative and postoperative complications, and patient satisfaction.
Setting: A tertiary university hospital.Patients: Four women with symptomatic uterovaginal prolapse of stage II or higher. **Interventions:** Four ports were made in all patients: a 5-mm infraumbilical port for the laparoscope and three 3.5-mm ports (right and left paraumbilical and suprapubic). LSH was performed using a 3-mm bipolar grasping dissector device and reusable monopolar scissors. Uterus was transected from cervical stump using monopolar desiccation. Sacrocervicopexy was performed using a triangle shaped polypropylene mesh with one right arm, with PTFE sutures fixed on the vagina and on the sacral promontory. Reperitonealization over the mesh was performed using a running monofilament absorbable suture. Finally, the posterior cul-de-sac was incised, the specimen was removed vaginally, and the cuff was closed.

Results

At the patients' fourth week post-operative visits, no prolapse in any compartment was identified. There were no operative complications related to colpotomy incision and no cases of postoperative vaginal cellulitis or pelvic infection were described. Patients reported only minimal pain on the day after the surgery and were overall very satisfied especially with the cosmetic results.

Conclusions

This video demonstrates a feasible method for performing LSH and sacrocervicopexy using minilaparoscopic instruments with specimen removal through posterior vaginal cul-de-sac.

http://player.vimeo.com/video/129987130?autoplay=1

ES24-0431
Best Selected Videos

Laparoscopic-assisted retropubic midurethral sling placement: a technique to avoid major complications

C. Amorim-Costa[1,2], *V. Billone*[2,3], *G. Cucinella*[3], *M. Canis*[2], *R. Botchorishvili*[2]
[1]*Faculty of Medicine- University of Porto, Department of Obstetrics and Gynecology, Porto, Portugal*
[2]*CHU Estaing- CHU Clermont-Ferrand, Department of Obstetrics Gynecology and Reproductive Medicine, Clermont-Ferrand, France*
[3]*University Hospital P. Giaccone, Department of Mother and Child, Palermo, Italy*

Background

Midurethral synthetic slings have become the procedure of choice for surgical treatment of stress urinary incontinence (SUI). When compared to a transobturator approach, retropubic slings (RS) have proved to be more effective in cases of recurrent SUI, and intrinsic sphincter deficiency. Moreover, they seem to be the only procedure that reduces the risk of SUI when performed prophylactically in women with severe pelvic organ prolapse. However, they have been associated with higher rates of urinary bladder perforation, bleeding complications, and even bowel injury, which seem to be related with its blind insertion through the Retzius´ space. We describe a procedure that allows a safe placement of RS, whenever a laparoscopic surgery has to be carried out for other reason.

Methods

A technique of RS placement under laparoscopic control is presented. 1. Opening of the Retzius´s space: the peritoneum of the anterior abdominal wall is opened in the midline (median umbilical fold) over the dome of the bladder, and the incision is prolonged horizontally between both medial umbilical folds; the umbilicovesical fascia has to be crossed to enter the space. 2. Dissection of the Retzius´s space: it is achieved by divergent traction; pneumodissection also helps to open the space; vessels should be carefully identified, so that they can be avoided in sling pathway. 3. Insertion of the RS under laparoscopic control: the assistant keeps holding the camera and optic, showing the Retzius´ space, while the surgeon seats between the patient´s legs for the RS placement. The procedure is performed as usual, but the surgeon introduces the sling´s trocars and tape through the retropubic space under laparoscopic visualization. If needed, the assistant may move away any structures with a forceps (as the scared and distorted bladder in women with previous surgery). If there is any abnormal bleeding, it can be immediately identified, and managed appropriately. 4. Closure of the Retzius´ space: after the sling placement, and careful check of hemostasis in the retropubic space, the peritoneum should be closed, in order to avoid herniation; a continuous suture with an absorbable thread and extracorporeal knots can be used.

Results

This technique has been used in patients with indication for RS placement requiring a simultaneous laparoscopy for other reason (most commonly colposacropexy), including in high risk patients with previous surgery in the Retzius` space, as Burch colposuspension. No complications have been identified so far.

Conclusions

It is a simple and reproducible technique for preventing major complications associated with RS placement, in patients undergoing laparoscopy. It also permits the immediate detection and even resolution of complications, in case any arises. Even high risk patients may be safely approached.

http://player.vimeo.com/video/130023530?autoplay=1

ACCEPTED ABSTRACTS FOR ORAL PRESENTATIONS (150)

ES24-0086
Free Communication 1 Reproductive Medicine

Dysmorphic, T-Y Shaped Uterus: a New Lateral Angle and a Cavity Width Ratio to Evaluate Better Uterine Morphology by 3d Ultrasound.

C. Exacoustos[1], *V. Romeo*[2], *B. Zizolfi*[3], *I. Cobuzzi*[4], *A. Di Spiezio*[3]
[1]*University of Rome 'Tor Vergata' Hospital Fatebenefratelli Isola Tiberina, Department of Biomedicine and Prevention- Obstetrics and Gynecology Clinic, Roma, Italy*
[2]*University of Rome 'Tor Vergata' Hospital Fatebenefratelli Isola Tiberina, Department of Biomedicine and Prevention- Obstetrics and Gynecology Clinic, Rome, Italy*
[3]*University of Naples Federico II, Department of Obstetrics and Gynecology, Naples, Italy*
[4]*University of Bari, Department of Obstetrics and Gynecology, Bari, Italy*

Background

The dysmorphic T or Y shaped uterine congenital anomalies are difficult to assess in all classification also the new ESHRE/ESGE classification, for absence of precise diagnostic criteria. The aim of this study was to propose a new tridimensional (3D) transvaginal sonographic (TVS) criteria for the diagnosis of dysmorphic Y or T shaped uteri by means of lateral angles between istmic cavity and fundal endometrial layers and a fundal /isthmic cavity widths ratio. Furthermore to correlate these measurments to normal and subseptate uterus according ESHRE/ESGE classification.

Methods

25 stored 3D TVS uterine volume of women with diagnosis of dysmorphic uterus were evalueted. The assessment of uterine morphology was performed in a coronal plane and following measurements were taken: 1) fundal cavity width (W1) (the distance between the two internal tubal ostia), 2) width of uterine cavity at corpus-isthmic level (W2) 3) uterine fundal wall thickness (M) (the distance from interostial line and the external uterine serosa) 4) the lateral angle between the corpus-isthmic cavity and the two fundal endometrial layers (A right; A left); 5) in case of cavity fundal indentation the identation length (L) (the distance from the tip of the fundal indentation to the interostial line) and fundal indentation angle (α) (the angle between the two endometrial layers) (figure 1). These measurements were compared with 25 normal and 25 septate uteri.

Results

The mean measurements of mean A (A right + A left \2), were statistical significantly different in the dysmophic uteri compared to the septate uteri (126.5± 11.4° vs 144.2±10.2 respectively) while W1/W2 ratio was significally different in the dysmorphic uteri compared to normal (5,4±1,2 vs 2,33±0,47 respectively). Miometrial fundal thickness (M) of septate and dysmorphic uteri was not statistical significantly different.

Conclusions

Lateral angles and corpus-isthmic ratio measured on 3D coronal section proposed in this study improve the diagnosis of dysmorphic uteri and could define better selection criteria for hysteroscopic treatment, resulting in improved fertility.

ES24-0504
Free Communication 1 Reproductive Medicine

Endometrial Secretory Arrest in Patients with Asherman Syndrome: a New Challenge or Chance?

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Background

Dysmenorrhea or pain in Asherman Syndrome related to menstruation is often explained by the theory that myometrial contractions try to evacuate blood trapped in the uterine cavity. However it is uncommon for a haematometra to be encountered (Asherman, 1948; Toaff and Ballas, 1978; Polter et al., 2006). Histology has also sometimes indicated a 'quiescent' or atrophic endometrium (Asherman, 1948). Although Asherman and others have suggested that the endometrium becomes unresponsive when outlet adhesions are present, there is remarkably little objective evidence to support this. The lack of haematometra with occlusion of the lower (isthmic) part of the uterine cavity is in contrast to other types of lower congenital genital tract occlusion such as an imperforate hymen, a partially non-communicating bicornuate or septate uterus or a partially non-communicating hemi-vagina. Even occlusion at the external cervical os after cervical surgery, often results in symptoms of amenorrhoea and dysmenorrhoea. However, haematometra, haematocolpos and haematosalpinx are almost always found in these conditions.

Methods

Representive endometrial biopsies were taken from 18 patients with Asherman Syndrome immediately after restoring the normal uterine cavity anatomy during hysteroscopical adhaesiolysis. The same moment the biopsy was taken also serum levels of follicle stimulation hormone (FSH), luteinizing hormone (LH), estradiol (E2) and progesterone (P4) were checked.

Results

All biopsies, taken from women with an amenorrhea as a result of an Asherman syndrome and taken above the adhesions after adhesiolysis, show characteristics of different cycle days, but none of them are congruent with only one day. All endometrium samples seem to be taken in the luteal phase according to the pathological dating. Looking at the endocrinology results 6 of these biopsies are actually taken during the follicular phase, 3 during the mid-cycle and the remaining 9 during different stages of the luteal phase. None of the biopsies showed a completely normal endometrium.

Conclusions

Actually all samples were taken randomly in the menstrual cycle; so it looks that in women with Asherman syndrome the endometrium stays or rests in a kind of steady state with microscopic characteristics mainly seen during cycle day 20-25 (secretory arrest). This arrest seems to prevent haematometra and severe dysmenorrhea in most patients. Future research should be focussed on which mediators, factors, proteins and genes are involved in the patho-fysiology of this typical clinical situation. Mimmicking this secretory arrest is a very interesting new concept for non-hormonal contraception since these patients have a painless amenorrhea with normal ovulatory cycles and infertility.

ES24-0199
Free Communication 1 Reproductive Medicine

A National Survey On Organisational Standards at the Outpatient Infertility Clinic in the United Kingdom

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Background

There are no national standards in the organisation of an outpatient fertility clinic. Patients attending clinic for the first time may be seen by a he alth professional; this could either be a nurse or doctor. We surveyed all tertiary Fertility Units in the United Kingdom (UK). This was done via a questionnaire.

Methods

An electronic survey via Survey Monkey was sent to representatives of tertiary fertility centres in the whole UK; organised systematically by regions and services provided. Only Units offering the whole r ange of fertility treatment in both the National Health Service (NHS) and private sector were included in the study. In cases where there was no respo nse electronically, a second email was sent a week later as a reminder. If there was no response after 2 emails, the principle investigator (PI) conducted a telephone interview wi th the Unit in question.

Results

A total of 77 Units were surveyed. 58 Units (75%) participated in the survey. There were a total of 44 NHS Units that also treat private/self funded patients, 11 Units that only treat private patients and 3 Units that only treat NHS patients.

In 36 Units (62%), patients were always seen by a qualified doctor who has relevant experience.

There was a wide variation in practice amongst the Units within the UK. 29 or 50% of Units allocated 60 minutes or more to the initial consultation. 5 Units (9%) had 20 minute appointments, 12 Units (21%) had 30 minute appointments and 11 Units (19%) had 40-45 minute appointments. The median time allocated per fertility consultation was 60 minutes.

Staff were questioned on how happy they are with the quality of service that was provided. 35 Units (61%) reported being satisfied or very satisfied with their service provision. 19 Units (33%) reported being ambivalent and 3 Units (5%) were dissatisfied.

We surveyed how many new patients are booked per clinic resource (Doctor or Nurse). The results were: 22 Units (41%) see between 1-5 patients on average, 15 Units (28%) see between 6-8 patients, 6 Units (11%) see between 9-10 patients and 3 Units (6%) see 11 or more patients. 8 Units (14%) see a variable number of patients.

When arranging follow-up for patients, 62% of units see patients at less than 4 weeks post initial consultation. All Units provide wriiten information for their patients.

Conclusions

The survey identified 4 factors that potentially correlated to clinical excellence. These factors were:
Offering an initial consultation by a nurse,
Running an Open Day/Seminar session,
Allocating a longer time for initial consultations (60 min or more),
Reducing the number of patients seen per clinical resource, per clinic session (up to 5 patients).

These factors contribute to high levels of staff satisfaction and higher self reported rates of perceived clinical excellence in their units.

ES24-0395
Free Communication 1 Reproductive Medicine

Laparoscopic Uterine Cerclage: 5 Year Audit of Safety and Reproductive Outcomes

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Background

Cervical weakness is a recognised cause of mid-trimester miscarriages. For women who suffer from recurrent mid-trimester miscarriages despite the use of a transvaginal cerclage, abdominal cerclage is associated with a lower risk of perinatal mortality and delivery under 24 weeks gestation.

Laparoscopic uterine cerclage remains a novel technique for women with recurrent pregnancy loss despite the use of a cervical cerclage. However, there is sparse data in the current literature regarding its safety and efficacy. There are no randomised control trials comparing conservative management against repeat elective cervical cerclage, abdominal uterine cerclage or laparoscopic uterine cerclage. Laparoscopic uterine cerclage has been performed in our tertiary referral centre since 2010 and with all novel surgical techniques its safety and efficacy is subjected to audit.

Methods

Retrospective data collection using our theatre operating system and records to identify all cases of laparoscopic uterine cerclage from 2010. Standards audited include indication for surgery, consent processes, and efficacy outcomes including livebirth rate, deliveries >37 weeks, peri-operative complications, operating time and blood loss.

Results

Five cases of laparoscopic uterine cerclages were carried out from 2010 to 2014. All patients had a history of failed transvaginal cervical cerclage. All five patients consented in a 2 stage consent process. All five patients underwent the operation successfully with no cases of urological or vascular injury. Length of stage was on day 0 (2/5) or day 1 (3/5). Mean operating time was 92 minutes. All five patients who underwent the procedure have subsequently conceived, three has had term deliveries by elective caesarean section while the other two patients are currently pregnant at 13, 27 weeks respectively.

Conclusions

Although the numbers are small the procedure appears to be safe in our unit and the results on its efficacy are extremely encouraging. Results can be further updated with the resolution of the on-going pregnancies. This audit supports the continuation of laparoscopic uterine cerclage as a management option for women who suffer from recurrent pregnancy loss with a history of a failed cervical cerclage.

ES24-0059
Free Communication 1 Reproductive Medicine

10-year Retrospective Review of Unintended Pregnancies After Essure Sterilisation in the Netherlands

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Background

Essure sterilisation is becoming increasingly popular in the Netherlands. Even though Essure is a permanent method of contraception, unintended pregnancies have been reported. The aim of this study is to identify factors that contribute to the occurrence of unintended pregnancies after Essure sterilisation.

Methods

In this retrospective national multicenter case-series analysis 35 pregnancies after Essure sterilisation in the Netherlands, reported from 2002 through 2013 out of an estimated 23.000 placements, were included. Data regarding Essure placement procedure, confirmation tests, and pregnancy outcome were obtained and analysed to identify a possible cause of failure.

Results

The main causes of failure were perforation (n=10), expulsion (n=7) and unilateral placement (n=7). Another identified cause was luteal pregnancy (n=2). The occurrence of most pregnancies was related to physician noncompliance to protocol (n=14). The other cases were associated with patient noncompliance (n=5) or misinterpretation of the confirmation test (n=9). Most pregnancies occurred within the first 24 months after the three-month confirmation test (n=23).

Conclusions

The results of this study show that the incidence of pregnancies after Essure sterilisation is low. Most pregnancies were related to incorrect positioning of a device or unilateral placement, and seem therefore preventable. Unilateral placement without prior history of salpingectomy should always be considered as unsuccessful sterilisation. Furthermore, interpretation of the confirmation tests should be done by trained physicians, and with caution. We want to emphasise the importance of strictly adhering to placement and follow-up protocols to prevent pregnancies after Essure sterilisation.

ES24-0171
Free Communication 1 Reproductive Medicine

Are Office Hysteroscopy and 3D Sonography Useful for Exploration After Late Fetal Loss?

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Background

There are very few published study about late fetal loss and the necessary exploration thereafter. French guidelines recommend an exam to look for uterine malformation or acquired uterine pathology. Aim of this study is to assess efficacy of office hysteroscopy and 3D sonography for exploration after late fetal loss.

Methods

This retrospective observational study took place in the gynecologic unit of a teaching hospital from June 2009 to June 2014. Women with a late fetal loss and office hysteroscopy and/or 3D sonography during the period were included.

Results

80 women were included with a mean age of 29.8 years old [28.2-31.4]. 37 women had a suspicion of chorioamniotisis. An anomaly was found on ultrasound in 8 women and at office hysteroscopy in 9 women. Concordance between the two exams for intrauterine anomaly was great with a kappa at 0.78. Anomaly was treated when possible and the subsequent pregnancy rate was 44 (55%) with 28 term delivery, 6 reccurent late fetal loss, 4 premature delivery, and 1 miscarriage and 5 aborption.

Conclusions

3D sonography and office hysteroscopy have a great agreement for exploration after late fetal loss. One of these exams should be recommended after a late fetal loss.

ES24-0012
Free Communication 1 Reproductive Medicine

Analysis of Risk Factors for Post-operative Rectovaginal Fistula in Deep Infiltrating Endometriosis

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Background

Post-operative rectovaginal fistula (PRF) is one of the most major complications of surgery in patients with deep infiltrating endometriosis (DIE), with a reported occurrence rate from 2.9% to 10.6%. The aim of this study is to identify risk factors for PRF in patients with DIE.

Methods

From Janurary 2013 to September 2014, a total of 95 patients who had histologically confirmed DIE and had undergone surgery in our single university-based tertiary obstetrics and gynecology hospital were included. Data were retrospectively obtained from patient medical records and were compared between PRF and non-PRF patients. Variables (age, BMI, severity and duration of symptoms, size and location of lesion, pre-operative medical treatment, and operative procedure) were evaluated using a logistic regression analysis to identify major factors associated with PRF.

Results

Among this cohort, 90 underwent laparoscopic surgery, with 3 (3.3%) converted to laparotomy because of severe pelvic adhesion, and other 5 underwent open surgery. The DIE lesion was all located in the uterorectal space, including 42 (44.2%) accompanied with ovarian endometrioma. 21 (22.1%) patients were treated with GnRHa or oral contraception pills. Among the 95 patients, three (3.3%) developed rectovaginal fistula at the 5th, 8th, and 16th day post-operatively, among which, 2 (25%) occurred after open surgery, 1 (1.1%) occurred after laparoscopic surgery. The mean age was 35.5 (20-52), mean BMI was 20.9 (16.1-28.0), 80 (84.2%) patients showed dysmenorrhea or dyspareunia. The mean operation time was 150 min (23-440 min), the mean blood loss was 200 ml (10-1400 ml). The operative procedure included 76 (80.0%) superficial excision, 4 (4.2%) full-thickness disc excision, 15 (15.8%) bowel resection. The mean size of lesion was 2.6 cm (0.8-7.0 cm). Age, BMI, symptoms and operative procedure did not differ significantly between patients with and those without PRF. In univariate analysis, lesion involved rectum, larger size of lesion (> 4 cm), longer mean length of primary surgery (>300 min) and pre-operative medical treatment with GnRHa or progesterone were found to be risk factors of PRF (P=0.012, P=0.032, P=0.004 and P=0.026). In multivariate analysis, larger lesion was identified as an independent risk factor for PRF (P=0.048).

Conclusions

Size of lesion is one of the risk factors for PRF in deep endometriosis. Laparoscopic approach can be recommended for treatment of deep endometriosis. Surgical procedures such as fullthickness disc excision followed by colorectal anastomosis or protective colostomy should be very carefully executed in patients with lesion larger than 4 cm.

ES24-0129
Free Communication 1 Reproductive Medicine

Hysteroscopic Placement of Altaseal® to Occlude Hydrosalphinges Ahead of IVF in Patients Contra-indicated for Laparoscopic Tubal Occlusion

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Background

Many studies have shown that hydrosalphinx has a detrimental effect on outcomes of IVF. While the proposed toxic mechanism is not well understood salpingectomy or proximal tubal occlusion is recommended before IVF in patients with hydrosalphinges. Studies have shown that the rate of on-going pregnancy is higher at 34% in these patients compared to those not treated (17%) before IVF [1].

Objective of this study: To use AltaSeal® to occlude hydrosalphinges ahead of IVF therapy.

Methods

Patients were referred to Dr. Gannon from fertility clinics across the Republic of Ireland. Patients presented with confirmed hydrosalphinges either bi-laterally or uni-laterally. All patients were contra-indicated for laparoscopic tubal occlusion. The AltaSeal® implants were placed hysterscopically and patients then had a HSG to confirm occlusion of the hydrosalphinges prior to cycles of IVF.

Results

To date, a total of 25/25 (100% placement) fallopian tubes were implanted with AltaSeal®. In 15 patients, 21/25 (84%) showed immediate occlusion with the other four patients showing only a trace of dye in the tubes beyond the implants. Based on our experience using AltaSeal® for hysteroscopic sterilisation, these patent tubes will be completely occluded after 10 weeks. All patients were referred back to their fertility clinics for IVF therapy. To date 10/15 patients have had an IVF cycle post tubal occlusion with a total of 14 cycles of IVF having been completed. Two pregnancies have so far been reported, both in women who had not previously been pregnant. One pregnancy did not progress beyond 8 weeks while the other is currently progressing. Patients continue to be recruited to the study and continue to go through IVF cycles.

Conclusions

The initial results suggest that AltaSeal® has a role in occlusion of hydrosalphingx prior to IVF.

References
1. Omurtag, K. et al (2012) How Members of the Society of Reproductive Endocrinology and Infertility and Society of Reproductive Surgeons evaluate, define and manage hydrosalphinges. Fert. Steril. 2012 May; 97(5)10.1016

A video of a case and immediate HSG showing tubal occlusion will be presented.

ES24-0081
Free Communication 1 Reproductive Medicine

Role of Hysteroscopy and Laparoscopy in the Evaluation of Uterine Scar After Cesarean Section and Its Surgical Correction

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Background

At present time there is a stable tendency to increase in frequency of Cesarean section that's why evaluation of the uterine scar condition is actual

Methods

29 patients with the uterine scar incompetence were enrolled in the study. Patients were divided in 3 groups: 1st – diagnostic hysteroscopy and laparoscopy (7), 2nd – hysteroscopy, Laparoscopic repair of incompetence scar (8), 3 - hysteroscopy, Laparoscopic excision of incompetence scar margins and its repair.

Results

Mean age of patients was 28,4±3,8 years. All patients had history of urgent cesarean section (acute hypoxia, secondary weakness of labor, clinically narrow pelvis). The thickness of the scar by ultrasound and MRI to 4 mm, the presence of niches was in all cases. 23 patients had menorrhagia, metrorrhagia, pain, dyspareunia, infertility. Mean operative time was 52±15; 106±38; 143±32 min, respectively. 7 patients had intrauterine synechia. Intaoperative blood loss was extremely low (50 ml). No complications were observed. One patient of the 3 group had reoperation. After operation all patients of 2 and 3 groups had thickness of the scar up to 6 mm. At present time 8 patients are pregnant.

Conclusions

Laparoscopic repair of incompetence scar is minimally invasive and effective treatment. But this issue requires further study: development of criteria for the evaluation of the scar incompetence with the use of ultrasound and MRI, indications for incompetence scar repair, the choice of surgical method of surgical treatment, evaluation of results

ES24-0232
Free Communication 1 Reproductive Medicine

Laparoscopic Correction of Incompetent Uterine Scar After Cesarean Section.

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Background

Rate of Caesarean sections in Russian Federation increased every year on 1 % . In In our clinic rate of CS is 24,5%. Scar defect after C\S was detected in 87 cases from 2010 till 2015.

Methods

At last 5 years 87 patients with scar incompetence after cesarean section was treated in our institute. Indication for surgical treatment were scar inconsistency and puerperal endometritis complicated by abnormal uterine scar healing. 8 patients were undergoing surgery at first 40 days after childbirth. 80 women were treated before next pregnancy after 24-48 months. In all cases we did Bettochi hysteroscopy with concomitant ultrasound investigation with measurement of blood flow and scar condition.

Results

Lower segment reconstruction was done in 58 patients by laparotomy (8 at 9-40 days). 50 times after conservative treatment surgery was done laparotomic access, 30 by laparoscopyÑ• aproach. 11 pregnancies with 10 term childbirths were registrated – 10,3% in LT groupe, 13,7 in LS groupe.

Conclusions

The most often reason of uterine scar inconsistency after cesarean section is puerperal endometritis. Ultrasound investigation of scar condition with hysteroscopy allowed to identify patients who can be treated with uterus preservation in puerperal and delayed period by laparotomyc and laparoscopyc aproaches.

ES24-0158

Free Communication 2 Teaching and Training + Technical Innovation in MIS

Box Trainers or Virtual Trainers? a Prospective Randomised Control Trial Comparing Training Methods for a Laparoscopic Salpingectomy.

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Background

The development of laparoscopic skills is today integral to becoming a competent gynaecologist. Traditionally this has been honed by mentorship in the operating theatre with experienced tutors but has become more challenging with the advent of working time directives and increasing conservative treatments of benign pathology. Preliminary simulation training provides an opportunity to repeated practice with no harm to patients, greater availability and decrease error rates in surgery. Thus should we be incorporating this into core training of tomorrow's gynaecologists?

Methods

The objectives of this study was to determine (1) whether virtual reality simulators (VRS) alone are superior to standard box trainers (BT) with immediate feedback from trainer (2) to evaluate whether skills learnt on one training method are transferable to another.

A randomised control study at a large teaching hospital was undertaken where 45 medical students were randomised to 3 groups over a 6-week period:

Group 1: control group with no training.

Group 2: 3 sessions using a BT supervised.

Group 3: 3 sessions on a virtual reality simulator (VRS).

All groups were assessed at the end of the 6-weeks by undertaking a laparoscopic salpingectomy on a porcine cadaver and VRS. Results were measured subjectively and objectively with a pre and post course questionnaire and outcomes (time, precision and accuracy) respectively.

Results

Data is expressed as a percentage mean score/ time and analysed using student's paired t test. Both BT and VRS showed improved precision and time to complete a test laparoscopic salpingectomy. Most students in this groups saw a significant improvement during the second session. The BT group report more confidence throughout the procedure. Interestingly the BT group showed faster times to complete procedures and the VRS group showed increase accuracy. Within each group students demonstrated objectively different levels of skill despite not having previous had any laparoscopic experience- namely students with a natural inherent skill, ones that can be taught and those lacking technical ability despite training.

Conclusions

Preliminary results show that not all skills were transferable from the VRS however skills learnt on the box trainer (BT) were reproducible on the VRS. VRS requires less supervision however students trained on BT showed better transferrable skills. Training of both VRS and BT improves operative performance and increases trainees confidence therefore we recommend that this should be incorporated into gynaecology core training. Early exposure to simulation and box trainer can identify students who have either a natural skill and those who can be taught and develop these skills. It is important to combine BT and VRS with mentor guidance so that correct techniques are learnt early and can be built upon.

ES24-0187
Free Communication 2 Teaching and Training + Technical Innovation in MIS

Gynaecologic Tales On Laparoscopic Setting and Electrosurgery.

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Background

Gynaecologist competency should not only be measured by their ability to perform a surgical procedure, but should also encompass their knowledge of instruments, patient's safe installation, and electrosurgical principles, given that an inadequate knowledge in these fields may be potentially associated with surgical complications. The aim of this prospective case-control study was to assess the improvement of such knowledge among gynaecologists who attended a training course on laparoscopy.

Methods

Gynaecologists attending a training course on laparoscopy at the Centre International de Chirurgie Endoscopique (CICE), Clermont Ferrand (France) (December 2013 - March 2014) were asked to answer a questionnaire about their own clinical activity and basic surgical knowledge at the beginning and end of the course. The questionnaire included multiple choice questions about technical (4 questions) and safety (5 questions) aspects of laparoscopic set up and electrosurgery (5 questions).

Results

65 residents and 70 graduated gynaecologists completed pre and post-course questionnaires (PrQ and PoQ, respectively). The self-evaluation of electrosurgery and laparoscopic setting knowledge was: very good in 1.9% (2/131 participants) and 2.9% (3/132 participants) respectively; good in 41.6% (42/131 participants) and 23.7% (24/132 participants); sufficient in 43.5% (44/131 participants) and 50.4% (51/132 participants) and insufficient 10.9% (11/131 participants) and 19.8% (20/131 participants). Mean PrQ score was 8.71, while mean total PoQ was 11.58. In a paired t-test on PrQ and PoQ total score a mean difference of 2.867 points was obtained in each participant ($p<0.001$). Moreover, a paired t-test demonstrated a statistical difference between both total and partial PrQ and PoQ scores ($p<0.001$) in each group, except for the "very good" group (p 0.095 in total score), considering self-evaluation on laparoscopic set up. Considering 9 as the cut-off score, indicating an adequate theoretical knowledge, a total of 70 (51.8%) and 128 (94.8%) participants had a sufficient score at the PrQ and PoQ, respectively. Only 9.6% of participants were able to complete PoQ without making any mistakes, with a mean PrQ score of 9.5.

Conclusions

This study demonstrates that the knowledge of laparoscopy setting and electrosurgery is not sufficient among gynaecologists; whatever the level of expertise. Considering pre-course questionnaire results, only 51.8% of participants resulted to have a sufficient knowledge on laparoscopic setting and electrosurgery, although most of participants had already performed surgery as first operator. Summing this information to the fact that only 15.6% and 25.9% of participants in this study judged their knowledge of electrosurgery and laparoscopic set up to be insufficient, it is clear that the field of self-assessment on medical competence still needs to be studied. Thus, we invite you to participate to our anonymous online questionnaire to improve our research:
https://docs.google.com/forms/d/1kl61xBLk0XCz8MbisB3fQaXqNqhrGi-uMy8msQ9HhrE/viewform?usp=send_form

ES24-0253
Free Communication 2 Teaching and Training + Technical Innovation in MIS

Learning Curve of Laparoscopic Suturing From the Physical Simulator to the Live Model

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Background

Although advanced laparoscopic techniques are becoming more widespread in gynaecology, the suturing learning curve remains poorly investigated. Our aim was to assess the learning curve of laparoscopic suturing from a physical simulator to a live model in gynaecology.

Methods

Twenty-one gynaecologists with little experience in laparoscopic surgery enrolled this study. They attended an intensive 3-day course including a short theoretical session (1 hour) and a 20-hour hands-on session. This part consisted of progressive basic skills training on a physical simulator (7 hours) and animal training (13 hours), where several techniques were practised by each surgeon. At the beginning and at the end of both simulator (T1 and T2) and animal (T3 and T4) training sessions, participants performed 3 sutures and were blindly assessed through execution time (seconds) and a previously validated suturing-specific checklist (maximum score of 29) by two expert surgeons.

Results

The execution time decreased between T1 and T2 (651.29 ± 277.13 vs 389.22 ± 126.14, $p<0.001$) and between T3 and T4 (510.73 ± 115.15 vs 399.49 ± 88.79, $p<0.001$), however it increased between T2 and T3 (389.22 ± 126.14 vs 510.73 ± 115.15, $p<0.01$). In the same way, the score of the suturing-specific checklist increased from T1 to T2 (20.09 ± 1.91 vs 25.44 ± 1.46, $p<0.001$) and from T3 to T4 (20.91 ± 2.62 vs 25.43 ± 1.36, $p<0.001$), but decreased from T2 to T3 (25.44 ± 1.46 vs 20.91 ± 2.62, $p<0.001$). Both execution time and score obtained no significant differences between T2 and T4.

Conclusions

The data reported in this study suggests that the suturing skills transfer from a physical simulator to a live model is not linear, being execution time more transferable than quality skills.

ES24-0373
Free Communication 2 Teaching and Training + Technical Innovation in MIS

Design and Face Validity of a Laparoscopic Salpingectomy Simulator
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Background

Objectives : To determine trainees assessment of face validity of the simulator developed to train novice gynaecology trainees in performing a laparoscopic salpingectomy.

Methods

The stimulator model to train trainees develop skills in laparoscopic salpingectomy was developed at the Norfolk and Norwich University hospital clinical skills laboratory by a group of minimal access surgeons. The trainee cohort was made of trainees at different levels of their training and included novices who have not performed the procedure before, as well as those who have varying levels of competency in the procedure up to the level of independent practice. Following completion of training session, the trainees were given a questionnaire with a visual analogue scale to grade the face validity of the model assessing their opinion of its resemblance to a real patient scenario and their perception of its use in practising and developing the skills required. Furthermore, the trainees were asked to comment anything exceptionally good about the model as well as any further improvements to the model desired. The training session also used a LapSim® simulator (Surgical science, Goteborg, Sweden), and the trainees were asked to mark their preference of the two simulators for future use.

Results

The total group of 31 trainees were made of 6 competent surgeons, 14 with intermediate competency and 11 novices. They were at different levels of their obstetrics and gynaecology training program. One trainee had no experience on the procedure and all others had some exposure to the procedure, at least as an assistant surgeon. The questions that were asked and the mean response rates(SD) for the whole study group are :The model used resembled a real life case 8.52 (1.18) The skills required on the model are similar to skills required at surgery 8.52 (1.09) The model helped me improve my skills for salpingectomy 8.97 (1.04) The practice on the model was useful 9.32 (0.79) Such a model is useful to be used regularly to improve skills 9.48 (0.67).
29 trainees (93.5%) recorded a preference for the new model while 2 trainees (6.4%) reported as having a similar preference to both.

Conclusions

Conclusions : We conclude that the simulator model described has good face validity and may be used as a good tool for improvement of skills in laparoscopic salpingectomy. It is planned to undertake content and construct validity testing of the model described in the future. Furthermore, this highlights the importance of clinicians getting involved in development of procedure specific training simulators. This simulator based training can translate into clinical benefit in Gynaecology.

ES24-0206
Free Communication 2 Teaching and Training + Technical Innovation in MIS

Initial Experience with a Genelyn Embalmed Cadaveric Donor: A Novel Model for Laparoscopic Pelvic Surgery Training

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Background

Human cadaveric donors are an accepted ex vivo model for laparoscopic surgical training. Fresh frozen donors have very high fidelity but are not cost-effective and have a short life-span. In contrast, soft embalmed donors have a relatively longer life-span but little is known about the suitability of this tissue for laparoscopic simulation. We aim to report our initial experience on the utility and feasibility of Genelyn ® embalmed donors as a novel soft-embalmed cadaveric model for laparoscopic surgical training.

Methods

The cadaveric study received ethical approval by the Lead Licensed Teacher in Human Anatomy at the University of Glasgow in accordance with the Human Tissue (Scotland) Act (2006).An expert laparoscopic surgeon with experience in organising and teaching laparoscopic pelvic surgery courses on fresh frozen donors performed laparoscopic pelvic dissection and laparoscopic surgical tasks including suturing and electrosurgery on a single male Genelyn-embalmed cadaver over a course of three dissection sessions across three weeks. The donor was fully embalmed using Genelyn ® fluids (Genelyn Pty, Ltd., Australia) through single-point closed arterial perfusion via a carotid artery. No further exposure to embalming fluids was required, nor was the donor immersed in embalming fluid at any time thereafter. Subjective assessments of the following factors: (1) operating environment including maintenance of pneumoperitoneum, (2) surgical anatomy, (3) tissue colour, consistency and dissection, and (4) the use of instruments, suturing and electrosurgery on tissues. Where possible and relevant, comparisons were made between these factors at the first and subsequent sessions.

Results

The operating environment was very similar to a live operation and there was minimal odour throughout all the sessions. Pneumoperitoneum was successfully maintained throughout all the sessions. The surgical anatomy was indistinguishable from in vivo settings. There was realistic tissue colour, consistency and traction. Dissection on the model was similar to live tissue. Instrument handling, tactile feedback and suturing was similar to live operating. The application of electrosurgery resulted in a similar thermal effect to live tissue. These qualities were preserved across the full three weeks.

Conclusions

Our initial experience shows that Genelyn ® embalmed donors provide a novel model for laparoscopic surgical training which possesses high fidelity and is feasible over longer time periods. The Genelyn ® embalming method is potentially superior to other available cadaveric models in terms of longevity, the possibility for sequential, more cost-effective use, and theoretically superior long-term preservation of tissue flexibility.

ES24-0356
Free Communication 2 Teaching and Training + Technical Innovation in MIS

Video Imaging in Hysteroscopy Training: Factors Influencing the Interobserver Variability.

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Background

The important value of endoscopic techniques is the possibility to increase the teaching impact of normal and abnormal aspects. In hysteroscopy, however, there are different aspects that could inf luence the value for training, and they could be promoted as elements as standards for teaching v ideos. In this survey, we estimated some factors related to the interobserver variability in the inter pretation of a non selected 9 short hysteroscopy videos.

Methods

There were 24 short hysteroscopy videos from which in this survey we randomly selected 9. All 1 6 responders were exposed to these films, with no other details regarding the cases or pathologic al results. The responders evaluated

- the clarity of image (if the technical elements of the films were good, and the visualisation was n ot impaired by local conditions- hemorrhage, tissue floating, etc) (noted from 1 to 5)
- the distension of the cavity- which was related also to good assessment possible on the film, se paration of uterine walls (also noted from 1 to 5)
- the specificity of the image demonstrated- how typically was it for the presumed pathology. (gra ded from 1 to 5)
- the general categorization of the lesion was also asked: intracavitary tumors, mucosal pathology , acquired cavity deformity, normal aspect.

The survey was interpreted with basic statistical methods, and with the support of surveymonkey. com site

Results

The experience of the responders was graded in three classes: minimal (no hysteroscopies perfor med)- 38%; moderate (<30 hysteroscopies per year)
- 24%, and important (over 30 hysteroscopies per year)- 38%.
The weighted averages in the survey correlated with high convergence of hysteroscopic diagnosti c (>75% in 10 case) or low convergence (<75% in 6 cases), and the values were respectively: for clarity of image 4.48/5 vs 3.77/5, for distension of cavity 3.96/5 vs 3.35/5, and for specificity of the images for the presumed pathology 4.34/5 vs 3.65/5.

Conclusions

In conclusion, a poor image is not always a source of error in hysteroscopy, and viceversa,good v isualisation does not insure a high precision in establishing a specific pathology. Nevertheless, hi gh concordance was more frequently achieved in good quality visualisation and specificity of hyst eroscopic aspects. Experience seems to play a role, but larger studies involving a larger number of responders with more statistical power, would verify these supposition.

ES24-0476
Free Communication 2 Teaching and Training + Technical Innovation in MIS

Development of an Animal Model-ewe- for Training in Vaginal Surgery for Pelvic Organ Prolapse

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Background

There are multiple types of training model in laparoscopy including virtual reality simulators, static and animal models. These models are almost inexistent for training in vaginal surgery.

This study aims to evaluate the feasibility and usefulness of an ovine model for training in vaginal surgery.

Methods

Four senior uro-gynecologist surgeons and 4 residents attended 3 sessions of vaginal surgery for POP and dissection of 3 female multiparous old sheeps. Fresh cadavers were installed in a lithothomy position. Urogynecologic examinations were performed and POP-Q classification was obtained. Pelvic examination was performed to palpate the bones, muscles and ligaments of the pelvis. Standard POP surgery with and without mesh were performed. Dissection of the pelvis was done at the end by laparotomy. A pelvi-scan was done on one animal and the structures were compared with the pelvis of a woman. The feasibility of POP surgery in ewes cadavers led to a session on a ewe under general anesthesia followed by laparoscopy.

Results

All the 4 experienced urogynecologists and the 4 residents found anatomic similarities of vaginal structures with women. The cervix could be easily individualized. All 4 female sheeps had significant uterine prolapse. Mean point C was +5,5cm. All 4 animals had significant anterior vaginal wall prolapse with point B at +5 and significant posterior vaginal wall prolapse and enterocele. The GH was 2.5 cm and TVL 12 cm. Anterior repair with plication of endopelvic fascia as well as the insertion of a mini sling with fixation in the obturator membrane was done by a resident. An experienced urogynecologist did an anterior mesh repair with trans-obturator arms. On another animal, an anterior mesh fixed to ATFP was performed. A McCall culdoplasty with uterosacral fixation of the cervix was done in one sheep. On another animal, a right sacro-spinous ligament fixation of the cervix (Richardson operation) was done. Rectocele repair was easily done by pre-rectal fascial plication, levator ani myorraphy was done on another model. During the operation, ischial spine and the sacro-spinous ligament were recognized. The obturator foramen was palpated and the trans-obturator passage of the arms was not a problem. The pelvi-scan showed similitudes with the women’s pelvis and the obturator foramens and ischial spines are easily recognized. The laparotomy and pelvis dissection showed in 3 animals, a double uterus which is very long 15 cm with infindibulo pelvis vessels very high in the abdomen. Hysterectomy and oophorectomy by vaginal route do not seem feasible.

Conclusions

This experiment shows that training in vaginal surgery for POP is feasible and useful in an ovine model of fresh female sheep cadaver with very close similitudes with women’s vaginal and pelvic structures.

ES24-0266
Free Communication 2 Teaching and Training + Technical Innovation in MIS

New Approach to Certification On Gynecology Laparoscopic Surgical Skills: Initial Analysis of an Objective Assessment Method

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Background

Currently, there is an increasing interest in developing methods for certifying surgical skills related to the laparoscopic approach. The aim of this study was to establish the relation between the level of experience in basic laparoscopic procedures and a new assessment method developed by our institution, in order to lay the foundation from which to develop an objective certification system for basic laparoscopic surgical procedures.

Methods

Participants were selected from a total of 55 students who attended different courses held in our facilities. Inclusion criteria were third-year gynecology residents who have experience in adnexal surgery. Depending on the experience, they were divided into two groups: group I, n=10 (0-15 procedures) and group II, n=4 (20-40 procedures). Our assessment method is based on five exercises performed on box-trainer: (1) Hand-eye and (2) hand-hand coordination, (3) cutting, (4) intracorporeal knotting and (5) needle positioning. The time needed to accomplish each exercise was recorded. Mann-Whitney U-test was used to compare time between groups.

Results

Although no statistically significant differences were observed between both groups, it seems that the time spent on cutting was the most precise to discern previous laparoscopic surgery experience. In addition, previous surgical experience had a mild association with the performance of needle positioning exercise (rho=-0.549)

Conclusions

It seems that cutting and needle positioning exercises could serve to predict previous laparoscopic experience in adnexal laparoscopic procedures. However, more participants should be included in order to drawn more conclusive results.

ES24-0379
Free Communication 2 Teaching and Training + Technical Innovation in MIS

Key Themes Arising From a Pilot Quality Improvement Survey
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Background

Conducting patient satisfaction surveys and auditing surgical performance are the two key ways by which we can improve clinical performance and provide high quality care.

Methods

In order to improve the quality of care we offer to our patients, we undertook a pilot telephonic survey of patients who had treatment of endometriosis in our unit.

Results

On an average the patients suffered for 5 years with pelvic pain before seeing the GP. 6 patients saw the GP more than 10 times before being referred to a specialist clinic. The gap between GP referral and appointment with the endometriosis team ranged from 2weeks-4months. The satisfaction scores with initial consultation, explanation of the disease condition, ability to directly access an endometriosis specialist nurse were high being 9.3, 8.7 and 9.5 out of 10 respectively. The patients felt that their views were respected with the average score being 9.1. However, not all were happy with the explanation of surgery preoperatively with the average score being 8.3. The likelihood of recommending the unit to a friend or family was 9.8.

The key areas where the patients wished to see improvement were – GP education regarding endometriosis symptoms, waiting times for surgery, operation cancellation, inability to see consultant post op due to split site working, inability to see consultant on follow up and being discharged too soon after surgery.

Conclusions

Even when there were complications, patients commented on the care being excellent emphasizing the importance of candour, good communication and teamwork.

ES24-0549
Free Communication 2 Teaching and Training + Technical Innovation in MIS

Gynecological Procedures Using an Innovative Image Guided Laparoscope Holder

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Background

Background: Currently marketed active camera holders have not become popular with surgeons due to a bulky design and cumbersome surgeon-machine interfaces that cause fragmented movements and require additional actions during surgery. Current systems allow only horizontal and vertical laparoscope’s movements thus requiring a large number of movements to perform an oblique path. The AutoLap system is novel image guided active camera manipulator that enables surgeon’s full control of the operative field, using a simple, intuitive wireless interface. Its sophisticated image processing algorithms enable the continuous movement of the laparoscope at any direction by following the movement of a surgical instrument, using a single button press. The performance and use of the AutoLap system, has been evaluated in a series of patients undergoing various laparoscopic procedures.

Methods

Methods: The AutoLap system is a small active laparoscopic camera manipulator that is attached to standard operating room tables. Installing the system is relatively fast. The system's algorithms enable the surgeon to continuously manipulate and position the laparoscope by following a designated surgical instrument within the field of view. Additionally, automatic zoom centering and camera horizon correction are enabled regardless of the angle of the scope. The surgeon controls the laparoscope’s movements by a miniature, disposable radio-frequency button that is attached to the surgeon's finger or the surgical instrument. The system is currently being used in a multi-center study in Europe and Israel in various general surgery and gynecological procedures.

Results

Results: We present our results on 13 laparoscopic procedures performed with the system. Docking time was fast, less than 90 seconds. The laparoscope was taken out for cleaning not more than once in most of the procedures. Surgeons reported on ease of use and high satisfaction with the system (questionnaire median score of 4 out of 5).

Conclusions

Conclusions: The AutoLap system has a high satisfaction rate. Its sophisticated image processing algorithms and its novel interface, give surgeons the ability to perform complex procedures with minimal user interaction during surgery. A new user experience is provided enabling surgeons to fully focus on the procedure with no distractions.

ES24-0128
Free Communication 2 Teaching and Training + Technical Innovation in MIS

A Closable Polyurethane Containment Bag for Power Morcellation

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Background

The study was set to
1. Evaluate a feasibility of a new way of in-bag power morcellation using a containment bag with closable openings for trocar insertion (in vivo pilot study) and to
2. Establish the minimal diameter of the umbilical incision to provide a spillage-free extraction of the bag (in vitro study).

Methods

Nine laparoscopic supracervical hysterectomies were carried out. The body of the uterus was placed in a modified polyurethane extraction bag (volume 2000 ml, Catch Bag M600, UMD S.A.R.L, Luxembourg). Two additional incisions were integrated into its upper side to allow the insertion of a morcellator and a grasper. Additional closure strings were integrated around these two openings to reduce the risk for tissue and fluid loss during morcellation and bag extraction. All surgeries were carried out in a three trocar setting; both a 12 mm and a 15 mm morcellators were used.

For the second part of the study, a wooden template with 11 bore holes sized from ten to 24 mm to imitate the width of an umbilical incision was used. Morcellation bags were filled with 20 ml of blue dye, all three openings were closed using the integrated system. For each bore hole, ten bag extractions were carried out. Fluid loss and the required force were recorded.

Results

For the in vivo part, no intraoperative complications and no bag ruptures occurred. The mean time to insert the bag into the abdomen, place the specimen into the bag and adjust the trocars was 14 min (range, 8-19 min). The mean specimen weight was 196.6 g (range, 32-710 g). Mean morcellation time was 10 min (range, 3-28 min), mean weight of remaining tissue and fluid in the bag after the morcellation was 12.3 g (range, 7-19 g). For the in vitro part, no evidence for dye loss was recorded for incisions 24 mm to 18 mm. Color change of the template edge without color drops on the indicator paper was registered in one of ten trials for the 16 mm incision. For the 15 mm, 14 mm and 13 mm incisions, dye drops were registered in one, five and ten cases (10, 50 and 100 %). The required extraction force increased with decreasing bore hole diameter.

Conclusions

We demonstrate the first morcellation bag with a closure mechanism for all openings. The study also provides the first in vitro data concerning the bag safety during its retrieval from the abdomen, indicating that a minimal incision size is required to avoid the loss of fluid. Since some content still remains in the bag after the morcellation, this device may reduce the risk of parasitic myomas and malignancy spread. This promising method should be evaluated in further studies.

ES24-0049
Free Communication 3 Endometriosis

Full Thickness Disc Excision in Deep Endometriotic Nodules of the Rectum. A Prospective Cohort

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Background

To date, a majority of patients presenting with large endometriosis of the rectum are managed worldwide by colorectal resection. However, postoperative rectal function may be impacted by rectal radical surgery. The aim of our study was to assess the postoperative outcomes of patients with rectal endometriosis managed by full thickness disc excision, and compare outcomes of two procedures employing transanal approach.

Methods

We conducted a prospective study enrolling patients managed by disc excision between June 2009 and November 2014. To enable conservation of the rectum, we performed laparoscopic deep shaving followed by full thickness disc excision to remove the shaved rectal area. Pre and postoperative data were prospectively recorded (NCT02294825).

Results

Fifty patients with colorectal endometriosis were enrolled in the study. Disc excision was performed using: Contour Transtar stapler (the Rouen technique) in 20 of the 50 patients, End to End Anastomosis (EEA) circular transanal stapler in 28 patients, and transvaginal excision in 2 patients.
The largest diameter of specimens achieved was significantly higher using the Rouen technique (58±9 mm) than the EEA stapler (34±6 mm). Two rectovaginal fistulae were recorded (4%) and 8 patients presented transitory bladder voiding (16%). Median postoperative value for the Gastrointestinal Quality of Life Index (GIQLI) and the Knowles-Eccersley-Scott-Symptom Questionnaire (KESS) improved progressively 1 and 3 years after surgery. For patients intending to get pregnant, cumulative pregnancy rate was 80%, and 63% of pregnancies were spontaneous.

Conclusions

Disc excision is a valuable alternative to colorectal resection in selected patients presenting with rectal endometriosis, achieving better preservation of rectal function. The Rouen technique allows successful removal of large nodules of the low and mid rectum, with favorable postoperative outcomes.

ES24-0048
Free Communication 3 Endometriosis

Conservative Surgery in the Management of Rectal Endometriosis: Preliminary Results of Endore Randomized Trial

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Background

To date, only a couple of studies compared colorectal resection to conservative rectal surgery in patients managed for deep endometriosis infiltrating the rectum. When the studies focused on digestive outcomes patients with colorectal resection were more likely to present postoperative abnormal bowel movement. However, these studies have the drawbacks of retrospective design, an a priori choice of surgical technique and the enrollment of more severe patients in the group of colorectal resection. The aim of our trial was to determine whether colorectal resection is responsible for a higher rate of postoperative digestive and urinary dysfunction when compared to rectal nodules excision (shaving or disc excision) (ENDORE, NCT 01291576).

Methods

Prospective in intention to treat randomized trial, enrolling patients with deep endometriosis infiltrating the rectum up to 15 cm from the anus, for whom rectal involvement exceeds 20 mm on length, the muscular layer on depth, and up to 50% on rectal circumference.

Results

60 patients randomly benefited from conservative procedure (shaving or disc excision) or colorectal resection. In the arm of radical surgery, 33 women underwent colorectal resection (100%). In the arm of the conservative surgery, shaving was performed in 10 patients (37%), disc excision in 15 (55.6%) while 2 patients underwent conversion to colorectal resection (7.4%). The largest disc diameter was 47 +/- 14mm (range 20; 70). The legth of colorectal specimen was 97 +/- 48mm (range 20; 200mm). Temporary colostoma was performed in respectively 59 and 64% of cases.
Two rectovaginal fistulae occurred in 2 patients in the conservative surgery arm (7.4%), however one of them actually underwent colorectal resection (P=0.11). Four patients (12.1%) presented a stenosis at the level of the rectal suture in the radical surgery arm, requiring complementary surgical or endoscopical procedures (P=0.06). Postoperative rectorrhage from the rectal suture occurred in 3 patients (9.1%) in the radical surgery arm (P=0.11). When the rates of Clavien III complications directly related to rectal procedure are compared "in intention to treat" , the difference is not statistically significant : 2 patients (7.4%) with 1 complication in the conservative surgery arm vs. 3 patients with 1 (9.1%) and 1 patient with 2 complications (3%) in the radical surgery arm (P=0.64).

Conclusions

Shaving or disc excision are feasible in 93% of patients managed for large rectal endometriosis. The difference between the rates of immediate complications is not statistically significant, however the study was not powered for this outcome.

ES24-0083
Free Communication 3 Endometriosis

Surgical Treatment of Peritoneal Endometriosis: a Prospective Randomized Trial of Excision Versus Ablation for Mild Endometriosis (1year Data)

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Background

Systematic review suggests that the use of laparoscopic surgery in the treatment of subfertility related to minimal and mild endometriosis may improve future fertility and symptomatic relief. It is not clear whether ablation is equivalent to excision of peritoneal endometriosis.

Study Objective: To compare reduction of pain and pregnancy rate following excisional and ablative treatment of peritoneal endometriosis in patients with minimal and mild endometriosis.

Methods

Design: A prospective, randomized study

Setting: ambulatory gynecologic operation center

Patients: 143 infertile women (ages 18 - 45 yrs) with minimal and mild endometriosis

Interventions: Participants were asked to complete a questionnaire rating their various pain and infertility history. During laparoscopy women were randomized to undergo resection or ablation of visible endometriosis. The questionnaire was repeated at 6 and 12 months.

Main Outcome Measure (s): Changes in pain score (VAS) and pregnancy rate 6 month after operation.

Main Outcome Measure (s): Changes in pain score (VAS) and pregnancy rate 6 and 12 month after surgery.

Results

Both treatment modalities produced a significant relief in overall pain VAS scores and a cumulative pregnancy rate of 56-60% after 12 month. There was no significant difference when comparing ablation and excision.

Conclusions

Laparoscopic resection or ablation of minimal and mild endometriosis enhances fecundity in infertile women. There is no significant difference in pain reduction and pregnancy rate between ablation and excisional treatments.

ES24-0084
Free Communication 3 Endometriosis

Can Endometriotic Cells Spread Through Lymph Nodes like Cancer Cells?

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Background

Endometriosis is a prevalent disease of benign nature, although it shares several similarities with malignancies; one of them is the possibility of lymphatic spread of endometrial/endometriotic cells. Endometriotic tissue has been identified in pelvic sentinel lymph nodes (PSLN) from patients with endometriosis. In malignancies, chemokines play a sovereign role in the process of metastasis and invasiveness. Tumors expressing the chemokine receptor CXCR4 are likely to metastasize to specific organs that express the ligand CXCL12 (lung, liver, bone marrow and lymph nodes), while tumors expressing the receptor CCR7 are likely to metastasize to regional lymph nodes, which express the two ligands CCL19 and CCL21. Metastasis-related chemokine axes were not yet assessed among deep-infiltrating endometriosis (DIE), and this investigation was the aim of our study.

Methods

This retrospective study included 47 participants who were surgically treated at Charité University Hospital in Berlin from 2007 to 2014. In order to evaluate a possible role of cancer-related chemokines in the lymphatic spread of endometriosis, their expression in rectovaginal deep-infiltrating endometriosis (DIE) lesions and in matched pelvic sentinel lymph nodes (PSLN) from patients with endometriosis (n=27) affecting the rectovaginal area was investigated by means of immunohistochemistry; their expression in the eutopic endometrium (EE) of endometriosis-free women (n=20) served as controls.

Results

The staining pattern of cancer metastasis-related chemokines and their ligands – CXCR4, CXCL12, CCR7, CCL19 and CCL21 – in rectovaginal DIE and endometriotic lesions affecting the PSLN as well as in the EE of patients without endometriosis were characterized for the first time. Overall, these chemokines were highly expressed in DIE and endometriotic lesions in PSLN. The expression was, however, not statistically different from normal endometrium. CXCR4 expression was directly correlated to the size of the DIE lesions.

Conclusions

Endometriotic cells may spread trhough lymphatics like cancer cells and chemokines might be involved in the dissemination mechanism of endometriosis and, therefore, should be further investigated. Our findings should encourage future research regarding these two key chemokine receptors, with additional quantitative methods of assaying their activity level to elucidate their role in the lymphatic spread of endometriosis.

ES24-0010
Free Communication 3 Endometriosis

Comparison of Complete and Incomplete Excision of Deep Infiltrating Endometriosis

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Background

Radical surgical excision of deep endometriosis increases the risks of complications and is associated with severe morbidity. It is unclear whether a greater or similar health improvement can be achieved with less aggressive surgery. This study is designed to compare the efficacy and safety of complete and incomplete excision of deep infiltrating endometriosis (DIE).

Methods

This is a retrospective cohort study. Ninety-three women underwent complete excision (n=51) or incomplete surgery of DIE (n=34), in the Obstetrics and Gynecology Hospital of Fudan University between January 2011 and December 2013. Patients and surgical data, and follow-up information were analyzed.

Results

The complete excision group had a significantly higher complication rate than the incomplete excision group (9.1% VS 0%, P<0.001). The complications included 1 colorectal anastomotic leakage, 1 ureter leakage in the complete excision group, and 3 poor healing of incision. Eighty-five (91.4%) patients were followed up for 18.3±8.7 months. The decrease of VAS scores were more significant (5.6±3.9 VS 2.9±3.3, P=0.001), and the postoperative recurrence rate is significantly lower (3.9% VS 35.3%, P = 0.000) in the complete excision group than in the incomplete surgery group. There was no difference of statistical significance between the pregnancy rate of the two groups (33.3% VS 60%, P = 0.165). Postoperative quality of life was improved in both groups, and there was a greater improvement only in psychological aspect in complete exicision group comparing with in-complete exicision group. And in the in-complete excision patients, post-operative administration of GnRHa led to improvement of VAS score comparable with the complete excision patients (4.5±3.2 versus 5.6±3.9 P = 0.272). However, the recurrence rate were still significantly higher (29.4% VS 3.9%ï¼ŒP = 0.000).

Conclusions

Comparing with incomplete excision, the complete excision of DIE significantly decreased the post-operative pain and the recurrence rate. Although incomplete excision with post-operative GnRHa is efficient with respect to pain, the side effects of the drugs and the recurrence rate after cessation of the drugs must be considered. So complete excision of DIE is the first surgical treatment of choice.

ES24-0477
Free Communication 3 Endometriosis

Laparoscopic Segmental Resection is the Preferred Option in the Management of Bowel Endometriosis for Nodules Greater Than 3 Cm

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Background

Different types of surgery have been proposed for the management of bowel endometriosis, although the preferred approach is far from resolved.

Our aim was to evaluate the long-term outcomes of three different surgical techniques (shaving, discoid and segmental resection) in treating painful symptoms related to deep endometriosis (DE) and recurrence rates specific to these procedures. Endometriotic nodule size was recorded to establish whether a threshold for nodule size is predictive for determining risk of bowel resection.

Methods

Design: Retrospective study

Setting: Tertiary referral centre

Methods: 92 women identified to have had laparoscopic surgical treatment of bowel endometriosis in the Department of Gynaecology, at Strasbourg University Hospital between January 2010 and September 2012 were included (47 shaving, 15 discoid and 30 segmental resections). Perioperative patient characteristics, details of surgical procedure preformed, size of retrieved specimens, preoperative symptoms, intra- and postoperative complications were recorded from the medical notes. In addition painful symptoms related to DE (dysmenorrhoea, dyschezia, dyspareunia) were assessed using a Visual Analogue Scale from 0 to 10, performed pre-operatively, at 2 months and 24 months follow up.

Results

Our data demonstrated short-term improvements in symptom relief for each surgical intervention. Concerning long-term follow up, the shaving group was less effective in terms of symptom relief for dysmenorrhoea and dyspareunia.

The dimension of DE nodules was compared between the groups and demonstrated significantly smaller sized nodules amongst the shaving group when compared with the others (p< 0,0001). Difference in nodule size between the discoid and segmental resection groups were not significant. To determine the nodule size threshold predictive for bowel resection a ROC curve was generated, providing sensitivity of 64.4%, specificity of 92.8 % and a likelihoods ratio of 9.0 when a threshold value of 3 cm was used. Patients with nodules ≥ 3 cm have a Relative Risk of 2.5 (95% CI 1.66 to 3.99) of receiving a bowel resection when compared to those patients with smaller nodules. 18.4 % of patients underwent further surgery because of recurrent DE lesions. There was a higher rate of re-intervention for recurrent DE lesions in the shaving group as compared to those patients who underwent segmental resection (27.6 % vs 6.6 %; RR 4.14; 95% CI 1.0 to 17.1).

Conclusions

Laparoscopy should be considered the gold standard approach for the management of bowel endometriosis and is effective in providing symptom relief. Our results, demonstrated a significantly higher rate of long-term symptom recurrence in the shaving group, in addition, to a higher rate of re-intervention amongst this cohort. Endometriotic nodules > 3 cm appears to be a predictive factor for segmental resection, allowing care to be individualised and enabling patients to be more appropriately counselled pre-operatively.

ES24-0224
Free Communication 3 Endometriosis

The Impact of Laparoscopic Surgical Management of Deep Endometriosis On Fertility Outcome

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Background

Retrospective study to evaluate the impact of laparoscopic excision of lesions on deep endometriosis related infertility.

Methods

115 patients who had undergone to laparoscopic surgery for infertility and with histological confirmation of deep endometriosis. Patients were interviewed for fertility outcome (pregnancy-rate) following laparoscopic treatment of deep endometriosis by spontaneous conception or by assisted reproductive technology (ART) correlated with lesion number, size and localization (anterior, posterolateral, douglas and multiple localization).

Results

After a mean follow up of 22 months the overall pregnancy rate was 54.78 % with a live-birth rate of 42.6%. The pregnancy rate was higher (60%) in the group of patients without previous ART (64.2% spontaneously). In the group of patients previously referred to ART, 40% conceived, and a further 6.6% became pregnant spontaneously whilst awaiting medical assisted reproduction. The presence of multiple localization of the disease was associated with a greater impairment of fertility and a higher pregnancy rate after surgery. Regarding lesion size and localization there was no difference in pregnancy rate when comparing isolated lesions.

Conclusions

The present study demonstrates that laparoscopic excision of deep endometriosis enhances fertility, both by spontaneous conception or following the use of assisted reproductive techniques. Surgical treatment of isolated lesions increased the pregnancy-rate, irrespective of their location and size while the treatment of multiple lesions was associated with higher pregnancy rates.

ES24-0475
Free Communication 3 Endometriosis

The Utility of He4 and Ca125 Biomarkers in Patients with Typical and Atypical Ultrasound Endometriomas

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Background

Human Epididymal Protein 4 (HE4) is a biomarker for epithelial ovarian cancer. It has an increased specificity over the cancer antigen 125 (Ca125) and an improved sensibility for distinguishing malignant adnexal masses.

The aim of the study was to evaluate the utility of HE4 and Ca125 biomarkers comparing patients with typical and atypical endometriomas.

Methods

A prospective observational study was performed between November 2010 and March 2015 including all patients with ultrasound findings of endometriomas who underwent surgery. All patients were scanned transvaginally by an experienced sonologist who differentiated between typical and atypical endometriomas. We defined typical endometrioma as a unilocular cyst with homogenous low-level echogenecity of the cyst fluid and atypical endometrioma when other morphological features were described.

Serum HE4 and Ca125 concentrations were determined preoperatively in all patients using a chemiluminometric assay on the Architect® analyser (Abbott). We considered 35kU/L as the upper limit of a normal Ca125 value and 70pmol/L for the HE4. The gold standard was the histological diagnosis of the surgically removed adnexal mass.

Results

61 patients underwent laparoscopy after ultrasounds results showed possible endometrioma. The diagnosis was confirmed in 58 of them and we also found 2 serous cystoadenomas and 1 luteoma. 41/58 (70.7%) women had typical endometriomas and 17/58 (29.3%) had atypical ones. The American Society for Reproductive Medicine classification for 33 patients was stage III, whilst 25 were classified as stage IV.

The median serum Ca125 concentration was 64.3kU/L (range 8.4-805.6kU/L), 69.5kU/L in typical endometriomas and 41.2kU/L in the atypical ones ($p>0.05$). The median serum Ca125 concentration was significantly higher in stage IV compared with stage III (96.5kU/L vs 41.2kU/L, $p<0.05$).

The median serum HE4 concentration was 44.9pmol/L (range 21.6-112.3pmol/L), 40.8pmol/L in typical endometriomas and 50.8pmol/L in the atypical ones ($p<0.05$). The median serum HE4 concentration didn't correlate with the stage of the disease (41.1pmol/L in stage III vs 45.6pmol/L in stage IV, $p>0.05$).

42/58 (72.4%) patients had serum Ca125 concentration above 35kU/L, whereas only 5/58 (8.6%) had serum HE4 concentration above 70pmol/L.

Conclusions

Ultrasound has a good ability to characterize endometriomas. We found that around 70% of the endometriomas in our study had typical ultrasound characteristics.

Endometriosis is frequently associated with high value of Ca125, especially typical endometriomas. Serum HE4 concentration is less frequently elevated than Ca125 concentration in patients with endometriomas. For this reason, HE4 seems to be a better biomarker than Ca125 to confirm the benign nature of ovarian endometrioma.

Our results are consistent with those published by Moore (Am J Obstet Gynecol. 2012), who found that serum Ca125 concentration is elevated in 67% of patients with endometriomas (72% in our work). However, in our study the percentage of endometriomas with elevated serum HE4 concentration is higher than in Moore's article (8.6% vs 3%)

ES24-0413
Free Communication 3 Endometriosis

Assessing Epidemiological Situation of Endometriosis in Brazil and Overcoming the Challenge of Prevention During Childhood.

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Background

– To highlight the importance of providing clinical assistance for young patients with signs indicating the possibility of endometriosis development.

- To compare the local economic impact, in Brazil, caused by elective and urgent hospitalization due to endometriosis.

- To assess the need of structuring the assistance regarding endometriosis prevention directed to child and teenager girls.

Methods

– The data here presented were obtained from January 2013 to August 2014, through the System of Hospitalization – Unique System of Health created by the Ministry of Health of Brasil – a record kept concerning all hospitalizations that took place due to numerous conditions.

Results

– In the period comprehended between January 2013 to August 2014, 24.154 hospitalizations of women diagnosed with endometriosis were recorded in Brazil. 237 were girls aging less than 19 years old, and within this group, the largest prevalence was between 15 and 19 anos (201 hospitalizations).17.963 of the total number of hospitalizations were elective and 6.191 were urgent. For girls aging up to 19 years old, 106 were elective and 131 were urgent. The total amount spent for all hospitalizations was one of US$ 6,904,620.84. The largest amount spent due to this condition was related to women aging between 30 and 39 years old, with US$ 1,603,226.10 and 40 to 49 years old, with US$ 3,092,619.11. The total amount spent due to elective hospitalizations was one of US$ 5,280,393.08, and US$ 1,624,227.78 for urgent cases.

Conclusions

– Symptoms that appear during childhood and adolescence that may suggest further occurrence of endometriosis in adult women should not be ignored, but screened and treated. The clinical treatment must aim on minimizing dismenorrhea and pelvic discomfort in a longterm basis. When clinical treatment fails to improve the patient’s condition, further investigation becomes necessary, as well as other options of treatment, including surgery, when endometriosis is diagnosed.

ES24-0179
Free Communication 3 Endometriosis

Evaluation of Multifocal Endometriosis Foci in Deep Endometriosis Infiltrating the Bowel

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Background

Recent studies revealed microscopic endometriosis foci on limits of 15% of specimen provided by colorectal resection for deep endometriosis infiltrating the bowel. The goal of our study was to provide a mapping of endometriosis foci on colorectal specimens removed in patients having undergone colorectal resection for deep endometriosis infiltrating the colon and rectum.

Methods

This study enrolled 28 women with deep endometriosis infiltrating the rectum or sigmoid colon, during the period January 2013 to December 2013 at the Rouen University Hospital, France. We performed seriated section of 3mm of colorectal specimen, and we identified endometriosis foci located in rectal muscularis, submucosa or mucosa. We determined the distance from the farthest endometriosis foci to macroscopic limits of the nodule.

Results

Among 28 patients managed by colorectal resection, 12 pieces resected presented non in sano limits. Histologic findings revelead 44 nodules >1cm. Most pieces presented endometriosis nodules infiltrating the muscular layer of the rectum (n=17), the submucosal layer was infiltrated in 7 cases and the mucosal layer in only 4. Distance from anus of the lowest rectal nodule was 11.89cm, and the length of colorectal resection was 9.94cm. There were numerous foci independent on main nodule: 77 implants measuring between 5mm-1cm, 112 implants measuring between 1mm-5mm, 116 implants measuring between 0,5mm-1mm and 251 implants measuring between 0,1mm-0,5mm. The longest distance from the nodule limits to the farthest implant was 54mm.

Conclusions

Data about the spread of microscopic foci through the digestive tract wall is essential for endometriosis surgeons, as it suggests that the goal of complete removal of microscopical implants may be challenging. In addition, it may bring strong arguments in favor of systematic postoperative amenorrhea in patients without pregnancy intention, in order to reduce the risk of recurrences originating in microsopic foci left on digestive tract.

ES24-0369
Free Communication 3 Endometriosis

Role of Evaluation of Anti-mullerian Hormone Value According to Bologna Criteria On Laparoscopic Cystectomy for Ovarian Endometrioma.

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Background

Bologna criteria are highly reproducible manner for the definition of poor ovarian responders. The aim of the study was to evaluate factors influencing on diminished ovarian reserve (DOR) after laparoscopic cystectomy for ovarian endometrioma by using the criteria, and to confirm the role of pre-and postoperative sampling the serum anti-Mullerian hormone (AMH) value.

Methods

One-hundred sixty-one patients who underwent laparoscopic cystectomy for ovarian endometriomas between 2011 and 2014 at our hospital were included in the study. The DOR was defined as the patient with lower than 1.1 ng/mL of the postoperative AMH value, according to the Bologna criteria. The factors influencing to the DOR were evaluated by logistic regression model. In addition, cumulative spontaneous pregnancy rates on infertility patients in postoperative DOR group at 12 months after surgery were compared to that on postoperative non-DOR group.

Results

The serum AMH values of non-DOR group and of DOR group at 6 months after surgery were 3.0±2.1 ng/mL and 0.5±0.3 ng/mL, respectively. The cystectomy for bilateral ovarian endometriomas was significantly positive association (OR, 2.56; 95% CI, 1.07-6.15; pï¼œ0.04), and preoperative serum AMH value was significantly negative association with postoperative DOR (OR, 0.4; 95%CI, 0.28-0.58; pï¼œ0.001). The cut off level of preoperative serum AMH value obtained from receiver operatorating characteristic curve was 2.1 ng/mL (sensitivity86.3%, specificity82.4%, pï¼œ0.001). In infertility patients, the cumulative spontaneous pregnancy rate at 12 months after surgery of DOR group was significantly lower than that of non-DOR group (9.5% vs 40.0%, p=0.03).

Conclusions

Our study demonstrates that bilateral ovarian cyst and preoperative AMH value in patients with ovarian endometriomas are valuable information for the prediction of potential risk of postoperative DOR according to Bologna criteria, and that preoperatively estimation of the factors may be contributed to avoid involuntary development of postoperative poor ovarian responders.

ES24-0405
Free Communication 4 Technical Innovation in MIS

Robotic Aortic Lymphadenectomy in Gynecological Cancer with Da Vinci Si Vs Da Vinci Xi: a Single-institution Case Control Study.

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Background

The aim of this study was to report the feasibility and safety of robotic paraaortic Da Vinci Xi lymphadenectomy (PAL) and to compare perioperative results with a matched series of Robotic paraaortic Da Vinci Si lymphadenectomy in gynecological cancer patients.

Methods

This is a prospective case-control study, comparing peri-operative outcomes of Da Vinci Si-PAL (Group 1; 21 cases) and Da Vinci Xi-PAL (Group 2; 21 cases) in a series of 42 gynecological cancer patients. Cases have been treated at the Gynecologic Oncologic Unit, Catholic University of the Sacred Heart, Rome, Italy, between October 2014 and March 2015.

Results

21 patients received surgical treatment with the Da Vinci Si System for endometrial cancer (n= 13; 61.9%), cervical cancer (n= 6; 28.6%) and ovarian cancer (n= 2; 9.5%). 21 patients received surgical treatment with the Da Vinci Xi System for endometrial cancer (n= 4; 19%), cervical cancer (n= 8; 38.1%) and ovarian cancer (n= 9; 42.9%). No significant differences between groups were observed in terms of age, BMI and previous abdominal surgery. Operative time (median 300 min for Group 1 and Group 2; p=0.478), estimated blood loss (median 100 ml for Group 1 and Group 2; p= 0.615) and median number of removed lymph nodes (13 for Gruoup 1 and Group 2; p: 0.870) , were similar between Si-PAL and Xi-PAL patients. Conversion rate was 14.3 % for the Si-PAL group and 19 % for the Xi-PAL group (p = 0.830). Two patient who underwent da Vinci Si surgery had major complications required reintervention (colo-rectal fistula and vaginal cuff dehiscence). There were no mortalities in either group. The median length of hospital stay was 3 days for both groups.

Conclusions

Robotic paraaortic lymphadenectomy with the Da Vinci Xi System were both safe and feasible. The few differences we registered do not seem clinically relevant, thus making the two procedures comparable. Further randomized trials are needed to determine whether the DaVinci Xi System truly offer any advantages.

ES24-0220
Free Communication 4 Technical Innovation in MIS

From Conventional Radiotracer Tc99m And/or Mbd to Indocyanine Green Fluorescence: Our Experience and Comparison of Methods Towards the Optimization in Sn Mapping of Uterine Cancer.

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Background

Background: The aim of this retrospective study was to compare the detection rate (DR) and bilateral detection (BD) of sentinel lymph node mapping (SLN) in women with endometrial (EC) or cervical cancer (CC) using Indocyanine Green (ICG) vs the standard TC^{99m} radiotracer + Methylene Blue (MB), or MB alone.

Methods

Methods: From October 2010 to March 2015, all consecutive women with stage I endometrial or cervical cancer underwent SLN mapping with TC99m ± MB or ICG including pelvic and/or aortic lymphadenectomy, were analyzed. SLNs were submitted for final pathology and ultrastaging were performed according to institutional protocol. DR and BD of ICG were compared respectively with results obtained using the standard TC^{99m} + MB, or MB alone.

Table 1. SLN characteristics and type of metastasis.

	TC^{99} + blue (N=77)	**Blue alone (N=38)**	**ICG (N=44)**	**p-value Fisher's exact test**
SLN per patients median (range)	4 (1-9)	2 (0-4)	3 (0-9)	
Pts with positive LN N (%)	14 (18.2)	5 (13.2)	6 (13.6)	a vs b : p=0.346 a vs c : p=0.415 b vs c : p=0.555
Mapping by side				
None	2 (2.6%)	4 (11.4%)	0	a vs b : p=0.174
Unilateral	30 (39.0%)	12 (34.3%)	5 (11%)	a vs c : p=0.002
Bilateral	45 (58.4 %)	19 (54.3%)	39 (89%)	b vs c : p=0.002
Type of metastasis N (%)				
Macrometastasis	25 (80.6)	6 (75.0)	6 (66.7)	a vs b : p=0.744
Micrometastasis	4 (12.9)	2 (25.0)	3 (33.3)	a vs c : p=0.348
ITC	2 (6.5)	0	0	b vs c : p=0.563

Results

Results: 159 women underwent the planned surgery including SLN mapping (110 EC and 46 CC patients). 77/159 women performed SLN mapping with TC99m radiotracer + Methylene Blue (MB), 38/159 with MB only and 43/159 with ICG. MIS was performed in 69% (110/159) of patients. SLNs were most frequently located in the external iliac region (71%), internal iliac (2%), obturator fossa (10%), common iliac (12%), paraaortic (2%), sacral (2%), parametrial (1%). The overall DR of SLN mapping was 97%, 89%, and 100% for TC99m + MB, MB alone and ICG, respectively. BD rate for ICG resulted in 88%, significantly higher with respect to the 58% obtained with TC99m + MB ($p=0.002$) and MB 54% ($p=0.002$). Twenty-six women (17%) had positive lymph nodes. Sensitivity and negative predictive value (NPV) of SLN were 100% for all techniques.

Conclusions

Conclusions: ICG real time fluorescence was significantly superior to TC99m + MB in term of bilateral mapping in women with early stage EC and CC. Moreover, SLNs mapping by using ICG real time fluorescence demonstrated the highest DR compared with other modalities (100%). The higher number of BD with ICG may consequently reduce the overall number of complete lymphadenectomy, reducing duration and additional costs of surgical treatment.

ES24-0053
Free Communication 4 Technical Innovation in MIS

A New Hysteroscopic Technique for Reversible Long-acting Reproductive Control (RelarcÂ®)

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Background

All currently available sterilization methods although highly efficacious are unfortunately irreversible. Costly microsurgical repair is necessary to undo laparoscopic tubal sterilization, and transcervical methods cannot be reversed, thereby forcing women to resort to in vitro fertilization. Many career women postpone pregnancy and therefore need long-term, well tolerated and effective contraception.

Methods

A simple and safe method is presented which can be used in the office with the aim to fill this contraceptive gap. The new method is derived from intrauterine contraceptive device (IUD) research to improve the acceptability of the IUD. The device is frameless and is anchored in the fundus of the uterus.

Results

Several cases, including insertion video, are described and discussed which illustrate the new technique and use of the device.

Conclusions

ReLARC is simple, safe and quick to insert. It is suitable for office use with or without anesthesia or sedation. The copper-based frameless device is immediately effective, highly effective, and has a track record of high tolerance and acceptability with long term duration of action. In contrast with other transcervical irreversible surgical or hysteroscopic procedures, the technique is easily reversible as demonstrated in return to fertility studies.

ES24-0110
Free Communication 4 Technical Innovation in MIS

Haptic Feedback in Laparoscopic Graspers Leads to Force Reduction in the Instrument Tip.

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Background

Haptic feedback, which enables the surgeon to perceive information on interaction forces between the instrument and tissue, is deficient in laparoscopic surgery. This information however, is essential for accurate tissue manipulation and recognition of differences in tissue consistencies. Enhanced haptic feedback is an unmet need in endoscopic surgery and surgeons are becoming increasingly aware of the potential benefits which haptic feedback yields. A laparoscopic grasper with enhanced haptic feedback has been developed: the Force Reflective Operation Instrument (FROI). The purpose of this study was to determine the effect of haptic feedback as presented by the FROI on the applied grasping forces.

Methods

Experiments took place in the Central Animal Laboratory, Nijmegen, The Netherlands. The experimental setup involved a box trainer on an operating room table in which slices of porcine organs (lung, small intestine and liver) were presented. Fifteen subjects (experts and students) performed three series of blinded palpation tasks involving three different graspers: a conventional grasper, the FROI activated and the FROI deactivated. In each series, nine sets of two tissues were palpated to estimate tissue consistencies. Both instrument and tissue orders were randomized between subjects. Subjects had to indicate which tissue had the most solid consistency. During palpation the applied forces were registered.

Results

Our preliminary results showed no significant differences in discriminative ability between the FROI and the conventional grasper. However, the use of haptic feedback significantly decreased the force applied on the tissue with on average a factor 3.1 (range 2 - 4). Te direction of this effect was consistent in all participants, regardless experience and type of palpated tissue.

Conclusions

With equal differentiation ability, the FROI enabled the surgeon to operate with a significantly reduced interaction force between instrument and tissue. The observed force reduction, enabled by the FROI, is expected to have multiple important clinical implications such as less tissue reaction, less complications, shorter operation time and enhanced ergonomics.

ES24-0046
Free Communication 4 Technical Innovation in MIS

Real Time Haptic Feedback in Endoscopy; the Proof of Concept

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Background

Study objectives; laparoscopic Instruments, conventional and robotic, lack real time haptic feedback due to the high friction of the instruments and low accuracy; no tissue information and no control of the gripping forces is delivered. Our current objective is development of laparoscopic instruments with haptic feedback which are affordable and applicable in all endoscopic operations. Ultimately, this will enhance patient safety and ergonomics for surgeons.

Methods

Methods; bilateral instead of actual unilateral manipulation using a position force control system; forces applied by tissue resistance on the tip and forces used by the surgeon on the gripper of the handpiece are registered by optical sensors and measured by optical electronic units outside the body. This real time information feeds the control system which gives input to the actuator in the hand piece of the instrument

Setting; R&D laboratory; an-organic and cadaver material.

Results

Results: manipulation of an-organic material with different stiffness and animal cadaver tissue with conventional instruments and with the haptic feedback instrument (Force Reflective Operation Instrument (FROI)) were manipulated. Different stiffness of an-organic material as well as animal cadaver tissue was compared and forces registered. The differences ranging from steel to feathers and the beats of the arteries can be felt and manipulated precisely

Conclusions

Conclusion; this proof of concept showed that all kind of material and tissue characteristics can be felt and optimal control of gripping forces applied by the surgeon; real time haptic feedback is reality.

ES24-0106
Free Communication 4 Technical Innovation in MIS

Functional Outcome of Laparoscopic and Robot-assisted Sacrocolpopexy

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Background

Pelvic organ prolapse (POP) is important medico-social problem. While increasing life expectancy incidence of POP and its surgical correction also increasing. In this paper we try to evaluate functional outcome and complication rates following laparoscopic sacrocolpopexy (LsSCP) and robot-assisted laparoscopic sacrocolpopexy (RALSCP).

Methods

As a treatment of POP we perform standardized SCP with mesh-augmentated correction of rectocele described by A. Wattiez. Since 1999 we have done 9 laparotomic SCP (1,7%), 451 LsSCP (86,4%) and 62 RALSCP (11,9%) in patients with symptomatic POP II–IV stage. We combined SCP with trachelectomy in 19,1%, supracervical hysterectomy in 61,36%, anterior colporrhaphy in 7,82%, posterior colporrhaphy in 31,3%, TVT-O in 13,04% cases. In addition to standard clinical methods we use: POP-Q staging, QOL questionnaires (PFDI-20, PFIQ-7, PISQ-12, FSFI), expert ultrasound of pelvic floor, anorectal vector-volume manometry.

Results

There is statistical improvements of functional results of POP symptoms before and after the operation: PFDI-20 95,5/55,1 (Ñ€<0,01), PFIQ-7 53,3/18,5 (Ñ€<0,01). Significant decrease of complaints of genital prolapse were noted: POPDI-6 41,52/11,4 (p<0,01), POPIQ-7 20,25/1,52 (p<0,01) and lower urinary tract complaints: UDI-6 32,51/22,7 (p<0,01), UIQ-7 21,7/7,8 (p=0,02). There were no significant differences of rectal function: CRADI-8 21,5/20,2 (Ñ€=0,9) CRAIQ-7 10,3/10,1 (Ñ€=0,78). Sexual function was improved: PISQ-12 22,3/15,6 (p<0,05), FSFI 17,9/23,2, (p=0,05). There was significant improvement of symptoms: “bulge” symptom 97,82 to 2,17%, pelvic pain 2,17 to 0%, dyspareunia 4,34 to 0%, obstructive urination 34,78 to 0%, frequency 8,69 to 4,4%, urgency 4,34 to 0%, stress incontinence 13,04 to 6,9% (in 4,8% cases - midurethral sling). About 6,52% of patients with no rectal organic lesion before the surgery had post-operative obstructive defecation without puborectalis muscle syndrome. About 2,17% of patients had post-operative functional anal incontinence without organic sphincter lesion. All these symptoms resolved after operation. Anatomical results are significantly improved after surgery: Ð’Ñ€ 0,8±2,0/-2,5±0,6, Ñ€<0,01; Ð• Ñ€ 0,1±1,9/-2,8±0,6, Ñ€<0,01; Gh 4,6±0,9/2,5±0,7, Ñ€<0,01; Pb 1,8±0,7/2,2±0,63, p=0,06; Tvl 8,9±0,9/8,1±1,2, Ñ€=0,71; Ð• Ð° 1±2,0/-2,4±1,2, Ñ€<0,01; Ð’Ð° 1,8±2,1/–1,8±1,4, Ñ€<0,01; Ð¡ 3,3±3,2/-6,4±2,8, Ñ€<0,01; D 1,2±3,0/-8,1±1,7, Ñ€<0,01. We have cystocele recurrence stage I-II in 9,3% cases without reoperation.

Conclusions

Short and long-term results, low postoperative pain score, few complications, satisfactory and good anatomical and functional outcomes in the most cases makes possible to consider laparoscopic and robot-assisted approach as a minimally invasive method, the "gold standard" in the treatment of apical and posterior prolapse. However, risk of recurrence of cystocele in the presence of multiple defects pubocervical fascia respectively high.

ES24-0383
Free Communication 4 Technical Innovation in MIS

A Retrospective Study of Postoperative Parasitic Myomas in Laparoscopic Myomectomy

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Background

We will report a series of parasitic myomas (PM) which occurred after laparoscopic myomectomy and examine causes, and risk factors.

Methods

A retrospective review was performed on five patients with PM. We recorded how morcellation was carried out, the locations of PM and necessary other data. Two types of retrieval were used, trans port-site by electric morcellator, and transvaginal by scissors morcellation after creating an incision at vault of posterior vagina.

Results

All patients had had prior morcellation procedures, four by trans port-site removal and one transvaginal removal. Four patients had PM the in internal aspect of the port site into which we had inserted the electric morcellator previously. The majority of PM were found at the mesocolon, paracolic gutter and the Douglas pouch or vesicouterine peritoneum.

Conclusions

When laparoscopic surgery requires morcellation, surgeons should be aware of the potential for iatrogenic PM formation, and ensure removal of myoma fly-fragments to minimize occurrence.

ES24-0156
Free Communication 4 Technical Innovation in MIS

Minitouch Outpatient Endometrial Ablation Procedure

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Background

Comparison of Minitouch Outpatient versus NovaSure Theatre procedure for patients with heavy menstrual bleeding.

Methods

Comparison of safety, efficacy, patient comfort and resource requirements from 30 consecutive Minitouch and 30 consecutive NovaSure procedures. The setting is a university hospital performing 350+ endometrial ablations annually. Minitouch and NovaSure procedures performed per their instructions for use.

Results

Minitouch was chosen for the outpatient procedures due to its small size, flexibility and short procedure duration. It does not require cervical dilatation, general anaesthesia or sedation.

Minitouch patients were instructed to take preprocedure oral painkillers. Average procedure duration was 6 minutes. Diagnostic hysteroscopy was performed only in case of abnormalities such as fibroids. When performed, it added about 10 minutes to the duration. Patients were typically discharged within 15 minutes postprocedure. The patients experienced tolerable pain during the ablation step, which stopped instantly at the end of it. The recovery was uneventful. No adverse events were reported. The procedures required one physician, a nurse and a vocal local assistant.

NovaSure was chosen for the theatre procedures as it is most common and the physicians were experienced in its use.

NovaSure procedures were performed under general anaesthesia. Average procedure duration was 45 minutes, including postdilatation hysteroscopy as per the United Kingdom Medicines & Healthcare products Regulatory Agency guidance. The patients were in a recovery area for 45 minutes before being moved to the ward. The recovery was uneventful with tolerable discomfort and cramps. No adverse events were reported. The procedures required one physician, an anaesthesiologist and 4 staff members.

At routine followups, the efficacy outcomes were similar for both procedures.

Conclusions

Safety and efficacy outcomes are similar for both procedures. Minitouch rated favourably in patient comfort primarily because the procedure and post-procedure recovery are shorter and simpler. Minitouch required significantly less resources based on shorter procedure and recovery duration, use of outpatient facility as opposed to the operating theatre, analgesia in place of anaesthesia, and fewer physician/staff requirements.

ES24-0402
Free Communication 4 Technical Innovation in MIS

The Effect of Perioperative E-health Interventions On the Postoperative Course: a Systematic Review of Randomised and Non-randomised Controlled Trials

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Background

The objective of the study was to evaluate the effect of perioperative e-health interventions on the postoperative course.

Methods

We conducted a systematic review and searched for relevant articles in the MEDLINE, EMBASE, CINAHL and COCHRANE databases. Controlled trials written in English, with participants of 18 years and older, who underwent any type of surgery, which evaluated any type of e-health interventions by reporting patient-related outcome measures focussing on the period after surgery, were included. Data of all included studies were extracted and study quality was assessed by using the Downs and Black scoring system.

Results

A total of 32 articles were included, reporting 26 unique studies. Nine studies focused on perioperative care for cardiac surgery, six on orthopaedic surgery, two on head and neck surgery, two on gynaecological procedures (one of the studies also focused on gastro-intestinal procedures), two on urologic surgery, one on lung surgery, one on gastric bypass surgery, one on eye surgery, and two studied included all types of elective surgery. All studies focused on replacing perioperative usual care (face to face) with some form of care via ICT such as telemonitoring, a webportal, or an electronic symptom alert system. 26 articles measured clinical patient outcomes (e.g. general health functioning, quality of life, complications, symptom threshold events, postoperative pain). Five articles measured costs and two focused only on patient satisfaction. Follow-up periods varied from 24 hours post surgery up to 6 months post surgery. Due to heterogeneity in terms of type of surgery, type of intervention and follow-up period, it was not possible to conduct a meta-analysis. Most of the studies found significant positive effects on these patient outcomes for the intervention group. More detailed results will be presented on the ESGE 24th annual meeting.

Conclusions

Based on this systematic review we conclude that e-health probably improves clinical patient outcomes and patient satisfaction compared to conservative face to face perioperative care for patients who have undergone various forms of surgery.

ES24-0069
Free Communication 4 Technical Innovation in MIS

Why Should Ethanol Sclerotherapy Be a Relevant Therapeutic Option of Ovarian Endometrioma Before in Vitro Fertilization (IVF)?

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Background

Conventional surgical treatment of endometriomas may decrease ovarian reserve and response to subsequent fertility treatments. This is particularly true in patients with advanced stage endometriosis, with bilateral cysts, or who have had multiple previous ovarian surgeries. On the other hand, expectant management may expose to several complications during and after IVF. In recent years, ethanol sclerotherapy (EST) was developped as a minimal invasive surgical technique in order to minimize the effect of surgery on ovarian tissue. However, reports on safety and efficacy are still lacking.
We propose to evaluate long-term safety and efficacy of EST in the treatment of ovarian endometriosis before IVF.

Methods

A prospective cohort study was conducted from october 2004 to december 2014, including a total number of 108 patients undergoing 130 ethanol sclerotherapy procedures. The mean follow-up period was about two years (range from 0.5 to 7.5 years).
Infertile women presenting with severe endometriosis and one to four endometriomas with a large diameter of 25 to 65mm, were proposed to participate in the study before undergoing IVF. After 12 days of pituitary desensitization by GnRH agonists, EST was performed in an outpatient basis according to the procedure previously described, and ovarian controlled hyperstimulation was started 15 days later. Specific data about patients' characteristics, procedure length and modalities, complications, IVF outcome and long term recurrence rate were recorded. Six patients were lost to follow-up.

Results

The mean patients' age was 33.2 years. The mean diameter of endometrioma was 44.6mm. The procedure was successful in 95.4% of cases, and was globally well tolerated (visual analog scale of 2.9) under local anesthesia. We did not observe any major complication (infection, hemorrhage,...), and all cysts' fluid cytologies were benign. Recurrence rate, defined on ultrasound as a cystic image of more than 20mm on the previously treated ovary, was estimated at 7.0% (8/115) on the 3-months' visit and at 13.8% (16/116) at the end of follow-up. Risk factors for recurrence were analysed by a Cox proportional hazards model. Pregnancy rate was 45.6% (36/79) after the first cycle of IVF and cumulative pregnancy rate at one year was 64.4% (47/73), including nine spontaneous pregnancies.

Conclusions

EST is an innovative surgical technique with low complication and recurrence rates, as compared to conventional surgical management. It is highly indicated in patients presenting with endometriomas and low ovarian reserve before assisted reproduction. Results of this large cohort of women undergoing EST before IVF encourage us to consider this treatment as a relevant alternative option to conventional surgery and should be included as a treatment option in future randomized trials.

ES24-0116
Free Communication 4 Technical Innovation in MIS

Automated Contraction Detection in Electrohysterography During the Menstrual Cycle.

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Background

Uterine contractions play a role in fertility, but the lack of an objective and easy to use measuring tool hampers it's possible use. In this study we assessed if abdominal electrohysterography with automated contraction detection can adequately provide contraction frequency, compared to transvaginal ultrasound, in the natural menstrual cycle.

Methods

This prospective observational study was performed in a Non-University teaching Hospital, on 3 healthy women (age 30, 34 and 36) with natural menstrual cycles.
We used abdominal electrohysterography (EHG) and transvaginal ultrasound (TVUS) to measure contraction activity, during the late follicular (most active) and midluteal (most quiet) phase of the menstrual cycle. We registered progesterone levels to confirm that we were measuring in the right phase of the cycle.
TVUS and EHG were recorded simultaneously for 4 minutes. A 64-channel electrode grid was placed on the lower abdomen, anterior of the uterus. From this electrode we derived four bipolar EHG signals. These were processed independently and then averaged in order to obtain a trace, representative of the contraction strength over time. The peaks of this trace were automatically detected by a dedicated algorithm to estimate the contraction frequency. The recorded TVUS videos were played 4 times faster and assessed by two trained experts, blinded for the EHG outcome. Consensus was reached on number of detected contractions.

Results

Late follicular, EHG analysis and TVUS assessment showed average contraction frequencies (ACF) of 2,00 (contractions/min) and 2.08 respectively. Midluteal, ACF=1,17 was obtained by EHG and ACF=0,83 by TVUS. Using a Pearson correlation test, a significant correlation was observed between ACF measured by EHG and TVUS (ρ= 0,91, p=0,012). Comparing progesterone levels (late follicular average: 1,6 (nmol/L), midluteal average: 33,1), to the estimated ACF, we found correlation coefficients of 0,89 (p=0,018) and 0,91 (p=0,011), for the EHG and TVUS, respectively.

Conclusions

To deepen understanding of uterine physiology and improve outcome of fertility treatments, an objective way to quantify uterine contractions is needed. This research shows agreement between automatic EHG analysis and TVUS. These results suggest that non-invasive EHG can objectively assess uterine contractions in non-pregnant uteri. Correlation between frequencies and progesterone levels shows that the contraction frequency changes accordingly during different (active and quiet) phases of the menstrual cycle.

ES24-0055
Free Communication 5 Hysteroscopic Surgery

Hysteroscopy Before IVF: the Safety and Diagnostic Value

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Background

Hysteroscopy is the gold standard test for assessing the uterine cavity. Hysteroscopy not only provides accurate visual assessment of the uterine cavity, but also provides a chance to treat any pathology detected during the examination. Currently, there is evidence that performing hysteroscopy before starting IVF treatment could increase the chance of pregnancy in the subsequent IVF cycle in women who had one or more failed IVF attempts. However, recommendations regarding the efficacy of the routine use of hysteroscopy prior to the first IVF treatment cycle are lacking.

Methods

The safety and diagnostic value of hysteroscopy before ART [see above] was examined in 600 patients seeking treatment for subfertility. The following parameters were analyzed: the presence of minor and major pathology of the endometrium, type of anesthesia, technique of operative work, instruments and energy used during hysteroscopy, and complications.

Results

Seventy-eight percent of all procedures were done under intravenous anesthesia. Diagnostic hysteroscopy was performed successfully in all women. The most common operative procedure was polypectomy, and the most complicated one was myomectomy. The combination of mechanical instruments and bipolar energy was used in most of the cases, while the percentage of complications was extremely low. Diagnostic hysteroscopy was performed successfully in all women. 53.7% had a history of IVF failures. In 36% findings during hysteroscopy were normal, whereas in 64% hysteroscopy revealed intrauterine lesions (polyps, septa, submucosal leiomyomas, or synechiae) that led to operative hysteroscopy. The total percentage of abnormal intrauterine findings was higher in women with a history of repeated IVF failures in comparison with those with no history of IVF attempts.

Conclusions

Hysteroscopy is a safe, highly sensitive, precise diagnostic and operative endoscopic procedure. Diagnostic hysteroscopy should be performed after all IVF failures and should be considered as precautionary measure before IVF in all patients, because a significant percentage of them have undiagnosed uterine disease that may impair the success of fertility treatment.

ES24-0040
Free Communication 5 Hysteroscopic Surgery

Hysteroscopic Removal of Placental Remnants: a Randomised Trial Comparing Hysteroscopic Morcellation with Cold Loop Resectoscopy

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Background

The objective of this study is to compare two mechanical hysteroscopic techniques for removal of placental remnants, (a) hysteroscopic morcellation with (b) cold loop resectoscopy, in terms of procedure time, peri- and post-operative adverse events, tissue availability, short-term effectiveness and intrauterine adhesion formation.

Methods

A multicentre, open label, randomised controlled trial is being conducted. Women with placental remnants after pregnancy who are scheduled for hysteroscopic removal are randomised between two techniques. Hysteroscopic morcellation is performed with the TRUCLEAR 8.0 Tissue Removal System (Smith & Nephew, Inc., Andover (MA), United States) and cold loop resectoscopy with a rigid 8.5 mm bipolar resectoscope (Karl Storz GmbH, Tuttlingen, Germany). Procedures take place in day surgery under spinal or general anesthesia. Postoperatively, an ambulant second look hysteroscopy is performed to check for intrauterine adhesions.

Results

We calculated a sample size of 34 women in each group based on the expected difference in operating time. Inclusion started in May 2011 and we expect to end it by June 2015. If selected for the ESGE Congress in October 2015, we can present the outcome data of this trial.

Conclusions

Soon we will finish the first randomized trial comparing hysteroscopic morcellation with cold loop resectoscopy for removal of placental remnants. Previous studies indicate that hysteroscopic morcellation is faster in treating other types of intrauterine pathology and suggest it is a good alternative for treating placental remnants. If selected, we will communicate the outcome results of this trial (procedure time, adverse events, tissue availability, short-term effectiveness and intrauterine adhesion formation) at the congress.

ES24-0051
Free Communication 5 Hysteroscopic Surgery

Perioperative Complications Associated with 5249 Primary and 458 Repeat Resectoscopic Endometrial Ablations: Experience of a Single Surgeon

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Background

Resectoscopic endometrial ablation remains the gold standard method by which all other ablative techniques and technologies are compared to. Although the procedure requires training and a skilled surgeon to perform, complication rates remain low overall. The objectives of this study were to describe perioperative complications of primary (PREA) and repeat resectoscopic endometrial ablation (RREA).

Methods

From 1990 trhough 2014, we performed 5249 PREA and 458 RREA for abnormal uterine bleeding (AUB) under general anesthesia using 1.5% glycine, 26F(9mm) resectoscope, 8mm monopolar loop electrode at 120W continuous (cut), 3-5mm rollerball interupted (coag) waveform or combination of the two.

Results

Median age (range) for PREA and RREA was 40 (26-70) and 43 (29-76) years. Indications for PREA and RREA included AUB- 52.7% v 53%, AUB+dysmenorrhea -25.8% v 26.2%, dysmenorrhea -18.8% v 19.1%, other-2.7% v 1.6%. Complications included traumatic, fluid absorption, bleeding, thermal injuries and miscellaneous. Traumatic included cervical tears 8(0.15%) v 0, p=1); uterine perforation 27(0.51%) v 15(3.28%, p<0.0001), false passage 17(0.32%) v 3(0.66%, p=0.21. Air embolism 5(0.1%) v (0%, p=1); and glycine absorption (1-2L), 54(1.03%) v 2(0.44%, p=0.32). Bleeding: 15(0.29%) v 2(0.44%, p=0.64, 14 required Foley tamponade (13 v 1, p=1), 3 had emergency hysterectomy (2 v 1; 0.04% v 0.22%, p=0.2). During PREA, there was one dispersive electrode burn and one to colon after perforation requiring no treatment. There was one asystole and one broad-ligament tear.

Conclusions

PREA and RREA are feasible and safe when performed by experienced surgeons with overall complication rates of 2.4% and 4.8%, respectively.

ES24-0099
Free Communication 5 Hysteroscopic Surgery

Factors Affecting Pregnancy Rate After Hysteroscopic Adhesiolysis

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Background

To examine the impact of early second-look hysteroscopy after hysteroscopic adhesiolysis on pregnancy rate(PR) and live birth rate(LBR).

Methods

This is a retrospective observational study. The subjects underwent hysterscopic adhesiolyis for moderate to severe intrauterine adhesion (AFS ≥5). Comprehensive treatment was given until the normal uterine cavity shape restored. The factors affecting PR and LBR were analysed.

Results

156 women who desired to conceive were enrolled. There were no difference between those who did or did not conceive in menstrual pattern, previous pregnancy history and previous uterine surgical history. The pregnant group was younger than the non-pregnant group (28.7±4.0 vs 31.1±4.2, P=0.001). The pregnancy rate was lower in severe group (moderate 79.3% vs severe 57.8%, P<0.05). The pregnancy rate in earlier second look group (second hysteroscopy within 2 months) was 77.9%, higher than the late group (63.4%) (P<0.05). There was no difference between 2 groups in the use of different adhesion prevention modalities. Age, the timing of the second look and adhesion degree were selected as significant predictive factors for pregnancy rate by logistic regression analysis. The OR was 0.893, 0.413 and 0.283. Age and adhesion degree were selected as significant predictive factors for live birth rate, OR was 0.850 and 0.463. In Kaplan-Meier model, the time dependent cumulative PR was higher in earlier second look group with 8 months of 50% PR, and 19 months of 50% PR in the other group (P<0.01). The time the time dependent cumulative LBR was also higher in earlier second look group (10 month vs 27 month of 50% LBR, P<0.05).

Conclusions

The age and severity of adhesion affected pregnancy rate and live birth rate of Asherman syndrome after hysteroscopic adhesiolysis. Early second look hysteroscopic examination within 2 months may also increase the cumulative pregnancy rate and live birth rate.

ES24-0091
Free Communication 5 Hysteroscopic Surgery

Post-placement Imaging of Essure Microinserts in Unintended Pregnancies Using a 10-year Retrospective Database

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Background

The objective of the current study is to examine the imaging modality used in cases of Essure® failures and determine the cause of the unintended pregnancies (non-compliance to follow up recommendations, misinterpretation of the imaging test, or device failure)

Methods

A retrospective review of Essure® procedures done over a 10 year time frame (Jan 1, 2003 to Mar 31, 2013) at a single site tertiary hospital was conducted. Coding data from the Regina General Hospital was examined for any pregnancy that occurred following an Essure® procedure. The hospital charts were then reviewed for data collection. A separate imaging database that had been established over the same time frame was then reviewed to determine the imaging modality used in each case. Imaging modalities used included transvaginal ultrasound (TVU), hysterosalpingogram (HSG), or none. Results of the imaging study were reviewed and the cause of the failure was determined.

Results

A total of 25 pregnancies in 24 women were identified following Essure® procedures from Jan 1, 2003 – Mar 31, 2013. There were 4 IVF pregnancies and 4 pregnancies where the woman had been instructed not to rely on the devices as there was incomplete placement noted at time of the procedure. Therefore, there was a total of 17 unintended pregnancies out of a total of 2,080 procedures performed. Examination of the imaging studies revealed that 11 were due to non-compliance (either early cessation of back-up contraception or failure to go for confirmatory imaging), 5 due to misinterpretation of the imaging tests (3 HSG, 2 TVU), and 1 device failure. This reveals a cumulative failure rate of 6/2080 or 0.29% over 10 years with only 0.04% (1/2080) being device related.

Conclusions

Essure® sterilization is an effective means of permanent contraception with a device failure rate of only 0.04%. The majority of unintended pregnancies after the Essure® procedure result from a failure to comply with follow up recommendations and strategies to improve compliance should be emphasized. TVU remains an effective imaging modality for predicting successful occlusion of the fallopian tubes following an Essure® sterilization.

ES24-0132
Free Communication 5 Hysteroscopic Surgery

Prediction of Unsuccessful Endometrial Ablation Leading to Hysterectomy

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Background

Retrospective analysis of patient characteristics, to determine failure predictors for treatment failure in a group of 562 patients undergoing endometrial ablation.

Methods

A retrospective cohort study in three non-university teaching hospitals (AZ Turnhout, Turnhout, Belgium; Catharina Hospital, Eindhoven and Elkerliek Hospital, Helmond, the Netherlands). Patients undergoing endometrial ablation performed for menstrual disorders between January 2001 and April 2013 were included (n=562). Modes of intervention were Transcervical Resection of Endometrium, Cavaterm^{tm}(Pnn Medical SA) or Thermablate® (Idoman).

Results

The cohort had a mean age of 44,26 years (range 25 – 57). A hysterectomy was performed in 84 patients (14,95%). Univariate predictors of treatment failure included age (HR 0,91, 95% confidence interval (CI) 0,88-0.95), parity of 3 or more (HR 0.46, 95% CI 0,25-0.84), history of cesarean section (HR 1,75 95% CI 1.02-2.98), preoperative dysmenorrhea (HR 3,85, 95% CI 2,17-6,84) and preoperative dysfunctional bleeding (HR 1,94 95% CI 1,18 – 3,18). It appeared that prior tubal ligation, indication heavy menstrual bleeding or dysfunctional bleeding, duration of menstruation, hysterometry and smoking were no factors potentially leading to failure of ablation.

Conclusions

Outcomes of ablation were analyzed in three non-university teaching hospitals. Eventually, hysterectomy was performed in 14,95% of the patients. Predictive factors for failure were younger age, parity of 3 or more, history of cesarean section, preoperative dysmenorrhea and preoperative dysfunctional bleeding. These data will lead to a multivariate prediction model to improve patient counseling prior to ablation.

ES24-0131
Free Communication 5 Hysteroscopic Surgery

Cervical Pregnancy: Combined Treatment and Preserving of Reproduction Function

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Background

To evaluated the effectiveness of modern approaches and technologies for preserving fertility in young nulliparous patients with cervical pregnancy.

Methods

26 women with cervical pregnancies (ages 25-43 years) were treated in Operative Gynecology department during 7 recent years. 19 of them underwent combined therapy with preoperative methotrexate chemotherapy and minimal invasive surgery (resectoscopic removing of cervical pregnancies) for preserving fertility

Results

Clinical protocol included transvaginal ultrasound investigation with transducer for color Doppler mapping, magnetic resonance imaging to visualize gestational sac, definition of the boundaries between the chorion and stroma of the cervix; definition of the blood flow intensity in the chorion, the definition of β-subunit of human chorionic gonadotropin (β-hCG) in serum in dynamics, general clinical research: clinical parameters, biochemical blood tests and hemostasis in the dynamics, diagnostic hysteroscopy and followed resectoscopy with material removed. The term of pregnancy on admission ranged from 5 to 9 weeks of gestation and the average term was 6,2 ± 0,9 weeks. Patients with cervical pregnancy received methotrexate at an average of 50 mg/every 48 hours, leucovorin administered at a dose of 6 mg after 28 hours after methotrexate injection. The total dose of administered methotrexate ranged from 200 to 300 mg and depended on the patient's body weight, week of gestation and intensity of chorion blood flow.

Conclusions

The results of this study suggest that resectoscopic removing of embryo with previous cytostatic therapy with methotrexate in combination with leucovorin allows to save fertility in young women with early cervical pregnancy.

ES24-0041
Free Communication 5 Hysteroscopic Surgery

Hysteroscopic Polyp Morcellation: Specimen Quality Assessment

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Background

Polypectomy under hysteroscopic guidance is the treatment of choice for most endometrial polyps, mechanical or electrical effects at the time of surgery may result in artifactual displacement of tissue with obvious resultant diagnostic problems. The purpose of this study was carried out to record qualitative and quantitative histopathological artifacts and to assess differences between artifacts found in specimens obtained by different surgical polypectomy techniques.

Methods

90 retrospective consecutive polyp histopathological slides and their reports were withdrawn. Initially reported slides were reviewed simultaneously on a double-headed microscope by two expert histopathologists. They were not provided with any surgical details. The issued reports and those of the reviewing pathologists were then compared.

Results

Consensus for the following features of polyps was documented: characteristic diagnostic signs of stroma fibrous thick-walled stromal blood vessels; glandular architectural abnormality (often as dilated glands with unusual shapes and focal crowding); epithelial metaplasias; proliferative activity of glands; stag horn glands and stromal condensation around glands; parallel arrangement of the endometrial glands' long axis to the surface epithelium (PGE); fragmentation and cautery artifact.
Of the 90 reviewed polyp slides, there was complete agreement on the initial issued report in all cases.

Conclusions

Removal of endometrial polyps in office setting using mechanical instruments, bipolar electrode or a hysteroscopic morcellator provides adequate tissue for histological diagnosis and there is no difference between these three techniques for adequacy of histological examination, despite the effects of thermal injury or tissue fragmentation.
Hysteroscopic polyp morcellation may provides adequate tissue for histological diagnosis and avoids the need of repeated endometrial samplings.

ES24-0122
Free Communication 5 Hysteroscopic Surgery

A Retrospective Cohort of Novasure Endometrial Ablation in Maxima Medical Center, Veldhoven

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Background

NovaSure impedance-controlled endometrial ablation has become a minimal invasive alternative to medical hormonal treatment and hysterectomy for premenopausal women who suffer heavy menstrual bleeding. In our clinic, NovaSure impedance-controlled endometrial ablation is both performed at the operating theatre and the 1-stop clinic for abnormal uterine bleeding at the outpatient clinic. Patient outcomes comparing NovaSure performed in outpatient clinics and operating theatres regarding patient satisfaction, amenorrhoea rates and rates of hysterectomy have not been compared yet. Advantages of using NovaSure endometrial ablation in an outpatient clinic are the use of local anaesthesia, fewer expected complications and reduced operating time. NovaSure in the outpatient clinic is more cost-effective than our operating theatre. Our hypothesis is that treatment for heavy menstrual bleeding using NovaSure in our outpatient clinic has the same patient satisfaction rate, less complications and less hysterectomies than when used in the operating theatre.

Methods

This was an retrospective cohort study and postal questionnaire approved by the Institutional Review Board of Máxima Medical Center that included premenopausal women who underwent NovaSure endometrial ablation due to hemorrhagia from January 1, 2012 to 28 of February 2014. Patients were identified by medical record study using the ICD-codes. Patient's characteristics were described in a database using a patient record form. For this study, only second-generation endometrial ablation performed by NovaSure was included. Residents, fellows and gynaecologists performed NovaSure endometrial ablation at the operating theatre and the 1-stop clinic for abnormal uterine bleeding at the outpatient clinic. After identification of all patients undergoing NovaSure in the observed period, all patients received a postal questionnaire in September 2014. Since Máxima Medical Center is a tertiary referral hospital, information regarding hysterectomy performed in secondary hospitals was missing. Patients were asked to describe all gynaecological operations since the Nova Sure ablation. The questionnaire comprehended also questions regarding rate of satisfaction, current menstrual blood loss, height and bodyweight. After two months, all non-responders were contacted via phone to improve response rates.

Results

For this retrospective study 329 gynaecological patients of Maxima Medical Center were included. Mean follow-up time at the time of sending the postal questionnaire was 18,46 months. The response rate for the postal questionnaire was 83% (273/329). There is no significant difference in patient satisfaction when comparing NovaSure performed in our outpatient clinic and our operating theatres (0.273). During the follow-up period 5,5% (15/273) had a hysterectomy due to menorrhagia.

Conclusions

NovaSure has high success rates in patient satisfaction and amenorrhea both after NovaSure in our outpatient office and operating theatre after short-term follow-up. Prospective long-term follow-up is necessary demonstrating NovaSure being effective and patient friendly in both outpatient office and operating theatre.

ES24-0125
Free Communication 5 Hysteroscopic Surgery

How Satisfied Are the Patients Attending the Outpatient Hysteroscopy Clinic at a Teaching Hospital?

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Background

The aim of the survey was to assess patient satisfaction in the outpatient hysteroscopy clinic at Whipps Cross University Hospital. The RCOG guidelines recommend that there should be a dedicated outpatient hysteroscopy service at all gynaecology units as it is clinically and economically beneficial as well as acceptable to patients. The objective of this survey was to find ways of improving the service at Whipps Cross University Hospital based on patients' feedback. Patient reported outcome measures are an important way to make changes to healthcare services, demonstrate the performance of the service and highlight areas to be improved.

Methods

This prospective study was aimed at forty consecutive women (n=40) attending the outpatient hysteroscopy clinic between January and March 2014. We devised a questionnaire to assess patients' satisfaction of multiple aspects of the clinic and their overall experience.

Results

92.5% of patients surveyed said they were given enough information prior to attending clinic. 87.5% were given a telephone number in case they had any questions before their appointment and a letter or information leaflet was received by 95% of the patients. 95% of patients were seen within thirty minutes of their appointment time. Of those who were waiting over thirty minutes 80% received an apology from the staff. In regards to the clinic staff and facilities 97.5% of survey respondents found the staff friendly and courteous and 100% reported the clinic to be clean. 100% of patients were satisfied with the information they were given in clinic and considered the procedure to have been fully explained to them by the staff. The patients' were very satisfied with both the procedure and consideration that was given to their privacy during the appointments. 80% found the hysteroscopy to be as or more comfortable than they expected. 100% of patients considered their privacy and dignity to have been respected during both the consultation and examination. Overall 100% of patients were satisfied with their experience and 83% rated the hysteroscopy service as excellent.

Conclusions

The majority of patients report an excellent standard of care at Whipps Cross University Hospital outpatient hysteroscopy clinics and all patients were satisfied with the service. Further improvements can be made by giving adequate information and contact number to patients prior to their outpatient hysteroscopy appointment that will allow patients' to be better informed of what to expect when they attend the clinic. The outpatient hysteroscopy clinic is a valuable resource and should be encouraged further. Information leaflets should be distributed to all patients ahead of their appointment and these should be reviewed to ensure women have enough relevant information prior to attending.

ES24-0216
Free Communication 5 Hysteroscopic Surgery

The Aetiology of Surgery for Pelvic Pain Following Placement of the Essure Permanent Birth Control System

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Background

The objective of this study was to determine the cause necessitating surgical removal of the Essure inserts. It was completed by analysis of an imaging database, pathology reports, operative notes and patient history to determine the incidence of de novo pain that resolved with removal of the inserts.

Methods

A prospective database of all patients (n=1430) undergoing post Essure imaging in the Regina Qu'Appelle Health Region was initiated in 2002. The health records of all women in the database were searched for the terms salpingectomy, total laparoscopic hysterectomy, laparoscopic subtotal hysterectomy, abdominal hysterectomy, vaginal hysterectomy and adnexal surgery. The charts of those having surgery subsequent to their Essure placement were reviewed for the type of surgery, indication, imaging results after Essure placement, surgical pathology and resolution of symptoms.
The study was approved by the Ethics Review Board of the Regina Qu'Appelle Health Region.

Results

A total of 1430 patients had Essure inserts placed with post placement imaging between June 2002 and June 2013 in the Regina Qu'Appelle Health Region. A total of 62 (4.3%) subsequent surgeries involved removal of the fallopian tubes and Essure inserts.

Of the 62 patients who had post-placement surgery, 24 (1.6%) had surgeries not related to pain. 38 (2.7%) patients reported either new onset or worsening pre-existing pain after Essure placement. Of the 27 (1.8%) reporting new onset pain 15 (1%) had pathology consistent with the diagnosis at the second surgery. In the remaining 12 (0.8%) patients with new onset pain, 8 (0.6%) were related to the Essure insert, with a perforation/migration noted in 7 and bilateral salpingitis in 1. Four (0.3%) patients had a normal placement and no pathology noted at the second surgery. These four patients were those where the most likely source of the new onset pain was the Essure insert, all improved with removal of the inserts.

Conclusions

The majority of second surgeries after Essure placement were associated with a diagnosis that explains the new onset or worsening pain. Later onset pain is associated with a demonstrable cause that will not resolve with salpingectomy or cornuectomy.
Any new onset pain or worsening pre-existing pain developing after Essure placement should be evaluated as with any similar pain, and attributed solely to the Essure insert.

ES24-0465
Free Communication 6 Endometriosis

Development and Validation of VNESS (Visual Numeric Endometriosis Scoring System) - a New Endometriosis Surgical Scoring System.

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Background

VNESS has been developed, through a multi-centre collaboration and consultation, to facilitate clear and easy communication of intraoperative findings for endometriosis. It consists of 8 numbers, each corresponding to an area of the pelvis starting clockwise from the left adnexa, Each compartment is given a score of 0-4 depending on the severity of the disease. This project aims to examine the inter-rater and intra-rater validity of VNESS. This is phase 2 of a bigger project. Phase 1 was development, conceptualisation and consultation, which has concluded.

Methods

63 edited videos of endometriosis laparoscopic procedures were scored by three scorers, twice using VNESS, producing 378 sets of VNESS scores. These were then examined for inter-rater and intra-rater agreement.

Results

VNESS showed excellent intra-rater and inter-rater agreements. The mean percentage agreement in all the 8 areas for the two rounds of scoring was between 83.9% and 87.7%. For all the scorers the mean percentage agreement in all the 8 areas for the two rounds of scoring was 85.7% (range 73.2% - 95.8%). The level of perfect agreement (the percentage of the 63 video pairs on which all scorers scored exactly the same) was strong (>90%) for adnexa, pelvic sidewall and uterovesacal fold, but noticeably weaker (< 75%) for both Uterosacral Ligaments and Pouch of Douglas.

Conclusions

VNESS is a simple, intuitive and reliable system for scoring of endometriosis and can have application for audit and research, as well as day-to-day clinical practice. Some modification will be needed to optimise the system to make it more descriptive and discriminative.

ES24-0335
Free Communication 6 Endometriosis

Endometriosis and Pregnancy: Obstetric Outcome in Women After Surgery.

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Background

Endometriosis affects young women and is one of the most common causes of female infertility and pregnancy associated disorders. Only few retrospective studies have investigated the link between women submitted to surgery for endometriosis and obstetric complaints. This study evaluated if surgical treatment for endometriosis should represent a risk factor itself for developing pregnancy complications and what kind of complications will develop these patients. It also investigated if exist a link between the site of endometriotic lesions and an augmented obstetrical risk.

Methods

From January 2009 to December 2014, the records of 786 pregnant patients admitted to deliver at Careggi University Hospital of Florence were retrospectively analyzed. The cases (group E1), 262 patients submitted to surgery for endometriosis before pregnancy, were matched 1:2 with the controls (group C1), 524 patients, with demographic features similar to the cases, not affected by endometriosis. The first group of cases was further divided in two subgroups basis on the site of endometriotic lesions: E2, 40 patients affected by deep infiltrating endometriosis and E3, 222 patients affected by superficial peritoneal endometriosis or endometriomas. We compared these two subgroups respectively with 80 patients of group C2 and 444 patients of group C3, extracted from the main group of the controls. Then we consider only 188 cases and 466 controls from the main groups (E4 and C4) excluding patients with twin pregnancy or who recur to in vitro fertilization.

Results

No differences were observed in the distribution of intra uterine growth restriction, post partum haemorrhage, gestational diabetes, gestational hypertension, thyroid disease and cesarean section rates between cases and controls of the four series. On univariate analysis, rates of cholestasis and preterm delivery were identified as the main complication developed in the group of cases, for all the four case series [tab.1]. Rates of previa placenta are significantly augmented in group E1 and E4. A higher rate of induction of labour for prolonged pregnancy in patients affected by endometriosis, independently from the lesions location, was registered. An association of endometriosis with other gynecologic benign pathology like endometrial polyp and myomas was also observed.

Conclusions

Endometriosis is a risk factor to develop several complications during pregnancy in patients previously submitted to surgery. The augmented risk seems not to be linked to the site of the lesions, no differences are registered between deep or superficial endometriosis or endometrioma. The link between endometriosis and higher induction of labor rate for prolonged pregnancy should be explained with a worsen myometrial function due to the junctional zone damage that should inhibit the start of spontaneous labor. These patients need to be strictly monitored during pregnancy in referral centre to prevent and treat any complication occured.

ES24-0505
Free Communication 6 Endometriosis

Self Reported Long Term Bladder Voiding Function Following Surgery for Severe Endometriosis.

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Background

Urinary voiding has been noted, in previous studies, to be adversely affected in the immediate postoperative period for women undergoing surgery for severe endometriosis. Voiding difficulty may lead to chronic urinary retention and urinary tract infection and therefore requires prompt recognition and management. The aim of this study was to establish whether symptoms of voiding dysfunction were more common at long-term follow up, after surgery for severe endometriosis, than before. Previous literature has suggested an increased incidence of voiding dysfunction in those patients undergoing either recto-vaginal nodule excision or bilateral uterosacral ligament excision. In addition, we therefore hoped to establish whether there was any correlation between the type of surgery performed and long-term voiding difficulties.

Methods

This was a retrospective review of patients who had surgery for severe endometriosis (defined as lesions where pararectal dissection was necessary in order to excise the lesions) at a teaching hospital tertiary unit . Self-reported scores from 0 (never) to 10 (all the 9me) to the question "do you have difficulty emptying your bladder?" were compared before and after surgery (either 6 month, 1 year or 2 year follow up). Patients were classified according to whether their self-reported symptoms remained overall unchanged, improved, or worse. We compared the proportion of patients in each group that underwent rectovaginal nodule excision, bilateral uterosacral ligament excision and bilateral ureterolysis using operative data from our database.

Results

203 patients were included in the analysis. Only 37/203(18%) patients in our study reported increased difficulty in bladder emptying post-operatively. Of these, 24/37(64%) had a rectovaginal nodule excised, 16/37(43%) underwent bilateral uterosacral ligament excision and 21/37(57%) underwent bilateral ureterolysis. The remaining 166/203(81%) patients reported either an improvement 28/203(14%) or no overall change 138/203(68%) in voiding function. Amongst those who did not worsen, 82/166(49%)(p=0.438) had a rectovaginal nodule excised, 98/166(59%)(p=0.422) underwent bilateral uterosacral ligament excision and 78/166(47%)(p=0.644) underwent bilateral ureterolysis.

Conclusions

These results show that 18% of women report a worsening in long term bladder voiding function following severe endometriosis surgery. Our study did not find any significant association between increased voiding difficulties and type of surgery performed. This suggests that although a high proportion of patients may experience voiding dysfunction in the initial post- operative period the vast majority of cases will resolve. Furthermore, our data suggests that more radical pelvic dissections do not carry an increased risk of long-term post-operative voiding dysfunction. These findings are relevant when providing pre- operative counselling to patients. However, the subjective nature of our study means that more objective tests of urinary voiding function are needed in order to further evaluate these findings.

ES24-0321
Free Communication 6 Endometriosis

Diagnostic Algorithm for Endometriosis

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Background

Endometriosis is the most common cause of chronic pelvic pain in fertile women. The prevalence for selected groups of infertile women is 30-47%. On average it takes 7 years before the diagnosis of endometriosis is made. In the meantime, women are referred to other specialists and are less productive in their work, resulting in an economic burden for the society. The objective of this study is to assess an optimal diagnostic algorithm for endometriosis.

Methods

We performed this observational study in an expertise center for endometriosis from April 22nd 2014 until April 22nd 2016. The study is still ongoing; we discuss the preliminary results obtained after one year. In the first year 93 patients were included.

After each part of the intake (clinical history and Endometriosis Health Profile (EHP)-30 questionnaire, pelvic examination and expert gynecological ultrasound), we asked the referring gynecologist to answer the following questions: a) does this patient have endometriosis? b) which stage according to the rAFS classification? After the intake we asked the referring gynecologist if they wanted to perform an additional MRI scan. After the MRI scan we asked the referring gynecologist if the additional MRI contributed to the proper diagnosis using the rAFS classification.

Results were compared to the rAFS classification assessed by laparoscopy.

Results

The mean age of the patients was 26 years (range: 22-55 years). After completing the patient's clinical history and the EHP-30 questionnaire, the gynecologist could correctly predict the stage of endometriosis in 35%. In 26,25% the stage of endometriosis was underestimated and in 38,75% the stage was overestimated. After performing the pelvic examination, the correct stage was predicted in 43,6%. It was underestimated in 28,2% and overestimated in 28,2% of the cases. After completing the expert gynecological ultrasound, the gynecologist could predict the correct stage in 86,3%. The stage of endometriosis was underestimated in 6,25% and overestimated in 7,5%. After the MRI the correct stage was predicted in 80,95%. In 14,29% the stage of endometriosis was underestimated and in 4,76% it was overestimated. Sensitivity and specificity after the first step in the diagnostic procedure (i.e.: clinical history and EHP-30) was 57,1% and 0% respectively. After the second step in the diagnostic procedure (i.e.: pelvic examination), sensitivity and specificity was 59,3% and 8,3% respectively. After the third step in the diagnostic procedure (i.e. expert gynecological ultrasound), the sensitivity and specificity increased to 92,3% and 60,0% respectively. After the last step (i.e. MRI scan), the sensitivity decreased to 83,6%, the specificity slightly increased to 62,5%.

Conclusions

In an expertise center for endometriosis, gynecological ultrasound is more sensitive for staging endometriosis presurgery than MRI.

ES24-0102
Free Communication 6 Endometriosis

Laparoscopic Surgical Treatment of Pelvic Endometriosis - Experience of a Portuguese University Hospital

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Background

Pelvic Endometriosis is a common condition associated with disabling symptoms with great impact on the quality of life. The objective of this study is to analyze our experience in the surgical treatment of pelvic endometriosis.

Methods

A descriptive retrospective study including all surgical treatments in patients with pelvic endometriosis between January 2012 and December 2014 in a Portuguese university hospital. Parameters registered: surgical indication, laparoscopic evaluation of the disease location, the type of surgical treatment, the operative complications, the need for conversion to laparotomy, duration of hospitalization, duration of surgery, postoperative sequelae and the impact on the quality of life after surgery

Results

We included 123 cases, with a mean age of 36.2 years. The most frequent indication was disabling cyclic dyspareunia and pelvic pain (92% of cases) followed by the presence of endometrioma (84% of cases). The most common surgical procedures were adhesiolysis (93% of cases) and the excision of ovarian endometriomas (82% of cases). Nodule excision of the rectovaginal septum was performed in 28% of cases, rectal shaving 24%, discoid bowel resection in 13% and segment bowel resection in 3% of cases. It was also performed partial cystectomy in 3% of surgeries and ureteroneocystostomy in 1 patient. The mean duration of surgery was 82 minutes. The average hospital stay was 3.1 days. It has been found that there are intra or post-operative complications in 3.7% of cases. There was a need for conversion to laparotomy in 2 cases. We found clinical improvement in 92% of patients.

Conclusions

The laparoscopic approach is the gold standard of surgical treatment of pelvic endometriosis. Our short experience has shown good results, with improvement of the patients quality of life, associated with a low rate of complications

ES24-0480
Free Communication 6 Endometriosis

Uterine Endometriosis - Incidence and Histological Classification in Patients Undergoing Laparoscopic Surgery for Severe Recto-vaginal Endometriosis. A Prospective Cohort Study.

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Background

Our aim was to establish the incidence of uterine endometriosis in the population who had a pelvic clearance together with complete excision of their severe recto-vaginal endometriosis. We performed a prospective cohort study looking at the outcome of patients undergoing laparoscopic surgery for severe recto-vaginal endometriosis. Of those that had a pelvic clearance, their histological specimens were analysed, through all layers of the uterine wall, in order to establish the exact location of endometriosis within the uterus.

Methods

Our study was performed at the Royal Surrey County Hospital, Guildford, UK, a tertiary referral center for minimally invasive gynecological surgery and endometriosis.
Patients who had surgery performed for severe endometriosis were invited to participate in the study. Questionnaires were completed (Endometriosis Health Profile (EHP)-30, Gastro Intestinal Quality of Life Index (GIQLI), EQ-5D and Visual Analogue Scores (VAS) for chronic pelvic pain, dysmenorrhoea, dyspareunia and dyschezia. Those who did not have fertility desires were offered a pelvic clearance in addition to excising all endometriosis. Questionnaires were completed pre operatively and up to 1 year post operatively.
In those where conservative surgery was performed all endometriosis was excised including the rectal nodule (this was performed either as a rectal shave, disc resection or segmental bowel resection). The study was carried out from 2007 to present and the first 99 patients that completed the study up to 12 months post operatively were included.

Results

Significant improvement in symptoms and scores was seen in both the conservative group and in those that underwent pelvic clearance ($P<0.01$), as compared to pre surgery. However, those in the pelvic clearance group had significantly improved scores compared to those in the conservative group ($P<0.01$).

When analyzing the specimens histologically it was clear that 80% had uterine pathology; adenomyosis (40%), serosal endometriosis (14%) and subserosal endometriosis (26%).

Conclusions

It is therefore clear that endometriosis can occur in all layers of the uterus not just in the myometrium (as in adenomyosis) but also in serosal and sub-serosal layers and should be classified accordingly.

This may explain why women who have clearance surgery for severe recto-vaginal endometriosis do better than those who have conservative surgery, and should therefore be counselled appropriately pre-operatively.

ES24-0394
Free Communication 6 Endometriosis

Extrapelvic Endometriosis: Locations, Symptoms, Diagnosis and Treatment-presentation of 33 Cases

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Background

Objective Endometriosis does not affect only pelvic organs but can appear also at sites out of the pelvis, known as extrapelvic endometriosis (EPE). The purpose of our research was to analyze the locations, symptoms, diagnostics and treatment of EPE.

Methods

We analyzed the locations, symptoms, diagnostics and treatment of EPE treated at Unit of Reproduction and Unit for thoracic surgery, between April 2006 and March 2012. The study was retrospective, data were obtained from patients charts.

Results

Thirty three patients with EPE were included in the study: 15 (45,5%) with umbilical endometriosis, (3 (9%) with groin endometriosis, 2 (6,5%) with episiotomy endometriosis, 9 (27%) with abdominal wall endometrioses and 4 (12,5%) with syndrome of thoracic endometriosis (TES). The indication for surgical treatment in patients with umbilical endometriosis, episiotomy and abdominal wall endometriosis was based exclusively on the symptoms: pain, swelling/bleeding during menstruation and history of pelvic endometriosis or gynecological or obstetric surgeries. Despite the same symptoms occurring during menstruations, patients with groin endometriosis were first referred to oncologist (tumor was misseddiagnosed for lymoh node and possible malignancy). Needle aspiration and cytological evaluation confirmed endometriosis and patients were surgically treated at our department. All cases were histologicaly confirmed. Patients with TES presented with different symptoms. First of them presented with hemoptysis during each menstruation. CT confirmed endometriosis of the right bronchus. She was including in IVF which resulted in a live birth. The second patient, presented with increasing pain in the right shoulder. MRI confirmed a 2x2 nodule in the right diaphragm. She underwent thoracoscopic resection of the nodule. Third patient presented with recurrent pleural effusion during menstruation. Diagnosis was made by exclusion-effusion recurred as soon as hormonal treatment stopped. All 3 were previously treated for pelvic endometriosis. In the fourth patient a right sided pleurodesis was performed at Unit for thoracic surgery due to recurrent catamenial pneumothorax and hormonal treatment was introduced. Average time from onset of symptoms to treatment was 34,5 months (range 6,5-72).

Conclusions

Extrapelvic endometriosis is often recognised too late due to its extremely wide variety of symptoms, localisation and clinical course. There is not enough attention paid to typical cyclical occurrence of symptoms during menstruation and history of pelvic endometriosis or gynaecological/obstetrics surgery in most of the patients. Taking into account these data diagnosis should be much easier. Surgery is at the moment the method of choice. In some cases, especially with TES, an interdisciplinary approach is needed.

ES24-0537
Free Communication 6 Endometriosis

Ovarian Carcinoma After Cystectomy of Ovarian Endometriosis

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Background

Endometriosis is a risk factor for epithelial ovarian cancer; however, there are few reports about the risk of neoplastic progression of ovarian endometriosis after cystectomy. We present two younger age ovarian cancer casesï¼Ž

Methods

CASE 1.

A 44-year-old woman presented with right ovarian tumor. She underwent a surgery for left ovarian endometriotic cyst five years before. Enucleation was performed for the right ovarian tumor since MRI showed no obvious malignant figure. But histopathological findings revealed it as poorly-differentiated adenocarcinoma. After the successive radical surgery for ovarian carcinoma, she completed 4 cycles of chemotherapy (Paclitaxel 175mg/m2, and Calboplatin AUC5). But CT showed progression of the disease. Chemotherapy was stopped due to her physical condition, and she died 9 months from the diagnosis.

Results

CASE 2. A 39-year-old woman presented with bilateral ovarian tumor. She underwent a surgery for bilateral ovarian endometriotic cysts three and nine months before. MRI suggested malignancy. Cytoreductive surgery was performed for the progressive tumor with peritoneal dissemination. Histopathological diagnosis of the right ovarian tumor was clear cell adenocarcinoma. She completed 5 cycles of adjuvant chemotherapy (Paclitaxel 175mg/m2, Calboplatin AUC5, Bevacizumab 15mg/kg), but her disease progressed, and died within 6 months.

Conclusions

The risk of ovarian cancer increases in women with ovarian endometriosis, not only in post-menopausal but in younger age. Even after surgical treatment for ovarian endometriosis, we have to concern about the risk of neoplastic progression.

ES24-0228
Free Communication 6 Endometriosis

Deep Infiltrating Endometriosis Central Lesions: MR Imaging as a Method to Predict Bowel Involvement.

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Background

INTRODUCTIÓN. Endometriosis infiltrating the bowel is difficult to detect. This is one of the most challenging things in presurgical evaluation of patients undergoing surgery for deep infiltrating endometriosis (DIE)
Bowel wall involvement has implications for the coordination of the surgical team (need of general surgeon). Success of treatment depends on radical surgical removal.
OBJETIVE: To evaluate magnetic resonance (MR) imaging clasification of central lesions of DIE and to assess its value in predicting bowel wall infiltration.

Methods

Prospective observational study. All patients evaluated in our unit with suspected deep endometriosis between 2007-2014 were included.

Clinical data were assessed (Dysmenorrhea, dispareuna, dyschezia not cyclical pelvic pain, and dysuria as well as other digestive and urinary symptoms}. In all patients physical examination and transvaginal ultrasound was performed. Patients with clinical or radiological suspected deep endometriosis were selected for performing MRI. According to data from the MRI, patients with central lesion were classified into 3 subtypes (pure recto-vaginal septum lesions type I, retrocervical lesions type II, and diabolo- like lesions type III) (modiffied Donnez). The same classification was done with surgical data. The surgical procedure was decided according to the experience of the surgical team based on intraoperative findings.

Results

112 patients were included in the study. MRI examination showed central deep endometriotic lesions in 55 of them. Regarding the presence of central endometriotic lesions on MRI there was one false negative. Acording the types described previously the patients were classified as type I 12,7% , type II 49%, and type III 32% .There were 12% of lesions no classificable. During surgery the patients were classified, according to the types described, based on intraoperative findings. High agreement was observed between radiological an surgical results. Kappa Index 0,82. Intestinal surgery was necessary in 41% of the patients. Six cases underwent conservative surgery (5 shaving and 1 disc excision) and 17 radical surgery segmental resection with end to end anastomosis. The anatomopatologic study confirmed the presence of endometriosis in the intestinal wall in all specimens. In subtype I there was no intestinal surgery. There was a statistically significant correlation between the diagnosis of type III lesion and segmental resection. (Fisher $p<0,0001$)

Conclusions

MR imaging is valuable to predict muscular infiltration of the bowel. Indirect signs on MRI may help diagnose and determine the extent of DIE.

ES24-0273
Free Communication 6 Endometriosis

How Fast Do Endometriomas Grow?

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Background

Endometriosis is a common gynaecological condition which is often associated with endometriotic cysts on the ovaries. Little is known about the natural history of endometriomas particularly their rate of growth. It has been shown that benign dermoid cysts grow at an average rate of 1.8 mm/year. The aim of this study was to evaluate the evolution of endometrial cysts in women awaiting laparoscopic ovarian cystectomy.

Methods

We reviewed the medical records of 59 women undergoing laparoscopic ovarian cystectomy at our Institution who had at least two serial pelvic ultrasound scans prior to their surgery. None of the patients were on hormonal treatment for endometriosis.

Results

The mean age of women at the time of their surgery was 34.9 (SD 7.9) years. Forty-one cases (69.5%) had two pre-operative scans, twelve (20.5%) had three scans and six (10%) had four scans. At presentation, the majority of women were diagnosed with a unilateral cyst while bilateral cysts were observed in the remaining 10.2%, the average cyst size being 51 mm (SD 22, range 15 to 105). The average interval between the first two scans was 5.56 months (SD 4.2, range 1 to 20). In 75.8% of cases, the cysts increased in size, in 21.2% it became smaller, and there was no change in 3.0%. The average cyst size observed at the second scan was 60 mm (SD 23, range 19 to 11) which equated to a change in size of + 9 mm (SD 13, range - 13 to + 50 mm), a growth rate of 2.2 mm/month (SD 3.5, range -1.2 to 11.6). In women who had three pre-operative scans, the average change in cyst size compared with the first scan was + 11.7 mm (SD 13.3, range -5 to 46) over 8.7 months (SD 2.96, range 3 to 15), giving a growth rate of 1.5 mm/month (SD 1.6, range -0.45 to 5.8). In 10/12 cases (83.3%), the cysts had increased in size by between 4 to 46 mm and in 2/12 (16.7%) it became smaller by 1 to 5 mm. In women who had four pre-operative scans, the average change in cyst size compared to the first scan was +17 mm (SD 58.6, range -2 to 146) over 14.4 months (SD 4.1, range 9-20), giving a growth rate of 0.7mm/month (SD 3.5, range -2.5 to 8.1).

Conclusions

Our results suggest that endometriomas grow relatively slowly but faster than benign dermoid cysts.

ES24-0288
Free Communication 6 Endometriosis

Influence of Tubal Patency On Endometriosis Recurrence

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Background

Preventing disease recurrence is a major challenge in the treatment of endometriosis, and is usually attempted by hormonal treatment. Very few data exist on the contribution of tubal patency to the risk of recurrence. In theory, the absence of retrograde menstruation in case of bilaterally blocked or absent fallopian could reduce the risk of recurrence. The aim of this study is to determine whether non-patency of both fallopian tubes decreases the cumulative recurrence rate of endometriosis after surgery.

Methods

This study is a retrospective matched case control analysis on a prospectively maintained database. Data of all women who underwent laparoscopic surgery for any stage of endometriosis between 2006 and 2008 at the Leuven University Fertility Center were available for analysis in this study (n=435). Women without patent fallopian tubes (caused by surgical removal or bilateral occlusion due to disease/adhesions) were compared with women with at least one patent fallopian tubes. Primary outcome studied was the cumulative recurrence rate over a period of 60 months. Different levels of recurrence were studied: suspicious recurrence (recurrence of symptoms and/or on imaging), proven recurrence (visualization of endometriosis during reintervention with or without anatomopathological proof) and reintervention without visualization of endometriosis; overall recurrence includes any of these types except reintervention without proof of endometriosis.

Results

17 patients without patent fallopian tubes were included. They were compared with 34 matched controls. Analysis showed a trend towards lower cumulative recurrence rates for the different levels over a period of 60 months in patients with non-patent fallopian tubes, however these findings were not significant. The overall recurrence rate was higher in the control group than in the study group, yet this difference was not significant (32.4% versus 23.5%, p=0.5872). Symptoms reoccurred in 27.3% (n=9) of the control group and 23.5% (n=4) of the study group (p=0.2829). Recurrence was suspected by imaging in 17.7% (n=6) of the control group and in 5.9% (n=1) of the study group (p=0.2829). Reintervention was performed in 14.7% (n=5) of the control group and 17.6% (n=3) of the study group (p=0.7850), of which 8.8% (n=3) and 5.9% (n=1) respectively had proven recurrent endometriosis (p=0.7525).

Conclusions

An indistinct trend towards a protective effect against endometriosis recurrence by bilateral occlusion or removal of fallopian tubes was observed, however these results failed to be significant. This is probably due to the small number of patients that could be included in this analysis, although the follow-up time is long. Future studies should include a larger number of patients before a possible protective effect of tubal occlusion or removal can be excluded or confirmed.

ES24-0039
Free Communication 7 Fibroids + Imaging + Laparoscopic Surgery

Laparoscopic Protected Power Morcellation. An Approach to Eliminate the Risk of Tissue Dispersion into the Abdomen and Prevent Direct Morcellators Injuries.

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Background

Laparoscopic morcellation is a largely used technology since 40 years (3,8,20,21,22,23,24, 26, 29,32).

Literature articles show incidences between 0.12% - 0.9% of parasitic myomas after laparoscopic morcellation (4,6,8,10,11,13,14,15,19,25,27-28).

Rates of direct visceral and vascular morcellators injuries are very rare, but serious if they occur(2,3,7,9,10,12,16-17,18,26,32).

In a literature- and FDA`s database- "MAUDE" review between 1992-2013, Milad (16-17) identified 55 morcellator-related injuries during gynecologic and non-gynecologic procedures. In this study, surgeons' inexperience was the most commonly listed risk factor for injury.

After the FDA´s warning against power morcellation on April 2014, all professional societies issued expertise statements in defense of morcellation-use; stating the device was safe when used correctly. Despite morcellation-risk is minimal, the FDA´s announcement, sparked a debate in the medical community about this established technique and triggered discussions about alternatives, like in-bag morcellation.

Objective:

Enclosed morcellation significance:

For enclosed morcellation, I utilize conventional endobags and reusable divaricating trocar. This system creates a protected working space within the endobag, providing containment of morcellated tissue; and minimizing risk of morcellators direct organs injuries. Additionally, it allows for continuous and simultaneous direct visualization of the morcellation process from inside and outside the abdomen.

Methods

DESIGN:

Step-by-step descriptive explanation of the technique using text and video.

Methods:

After completion of hysterectomy/ myomectomy,the folded endobag is inserted into the abdomen through the 10 MM lateral trocar, the specimen is placed in the bag, and this trocar is removed. The abdominal incision is enlarged up to 2 CM and the new developed trocar is introduced into the abdomen. The bag´s mouth is exteriorized through this trocar.

Elliptic shaped retractors are introduced through the mouth of the endobag and fixed to the trocar opening to distend the bag , and prevent the contact between morcellator and endobag.

A cannula is inserted into the trocar to fix the retractors firmly; creating a safe working canal, and prevent the contact between the bag´s neck and the morcellator.

The morcellator knife rotation is limited to 175 revolutions/ min, and protected morcellation is performed under direct vision , through the cannula and laparoscopically .After accomplished morcellation, the remaining tissue fragments are removed within the intact endobag.

Results

After lab tests, first clinical series were performed without any complication neither to patients nor to endobags.

Conclusions

This promising technique improves patients' outcome and safety. Inadvertent catapult of tissue fragments or cellular seeding into the abdomen, and the risk of organs injuries during morcellation were eliminated. It is a recommendable, feasible, safe, and easy to learn approach.

ES24-0257
Free Communication 7 Fibroids + Imaging + Laparoscopic Surgery

Combined Use of Myosure and 5f Mechanical Instruments for the Removal of a G2 Myoma. a New Surgical Strategy for Outpatient Hysteroscopy.

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Background

Background: Loop-electrode resectoscopy provided a reliable method for removing submucosal myomas for many years. However, large diameter resectosocpes, hypotonic distension media, risks of perforation, and visual field limitation created by resected fragments all combined to encourage the development of alternate treatment methods. For this purpose, systems for hysteroscopic morcellation have been recently introduced in the market. In 2009, the FDA approved a new generation hysteroscopic morcellation device, the MyoSure System *(Hologic, Bedford, MA),* that relies on a suction-based, mechanical energy, rotating tubular cutter system rather than the high-frequency electrical energy. Moreover, the smaller diameter of this system (6.25 mm) makes it compatible with outpatient-based treatments of polyps and G0 or G1 submucosal myomas. However, the outpatient treatment of G2 myomas still remains a hysteroscopic challenge.

Methods

Methods: A 33-years-old woman, with a history of abnormal uterine bleeding, came to our observation for the ultrasonographic report of a submucosal-intramural myoma of 1.5 cm. Diagnostic hysteroscopy confirmed a G2 myoma. An outpatient hysteroscopy under consciuos sedation using Myosure system and 5F mechanical instruments was planned.

Results

Results: The hysteroscopic procedure consisted in 3 surgical steps. First step was the removal of intracavitary portion of the G2 myomas using the myosure device; then, we proceeded to the enucleation of the intramural part of the myoma using 5F mechanical instruments (crocodile forceps and tenaculum forceps). Finally, the intramural component that became totally dislocated inside the uterine cavity was removed using Myosure system again. At the end of the surgical procedure, the myoma fovea was bloodless with no damage of the surrounding healthy myometrium.

Conclusions

Conclusions: The proposed technique with combined use of Myosure and 5F mechanical instruments could be an easy to perform option for myomectomy of small G2 myomas in outpatient setting.

ES24-0522
Free Communication 7 Fibroids + Imaging + Laparoscopic Surgery

Evaluation of Laparoscopic Myomectomy in Peri-menopausal Women

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Background

The surgical management of fibroids by myomectomy can be controversial in the peri-menopausal woman. We evaluate the peri-operative outcomes of laparoscopic myomectomy (LM) in peri-menopausal women compared to their younger counterparts to determine whether the risk of the surgical approach outweighs the symptomatic benefits for these patients.

Methods

In order to compare peri-operative outcomes and symptom resolution of laparoscopic myomectomy in peri-menopausal and non menopausal women, a retrospective cohort study of 217 LM performed between 2005 and 2013 for the management of uterine fibroids at a London teaching hospital.

Results

The estimated blood loss(233.3 vs 305.1, p=0.2382) and drop in haemoglobin(1.13 vs 1.76, p=0.4512) was lower in the peri-menopausal group compared to non menopausal women, although this did not reach clinical significance. There was no difference in the use of surgical drains or length of hospital stay in both groups. The resolution of symptoms was comparable between patient cohorts, however the post operative patient satisfaction was greater in the non menopausal compared with the peri-menopausal women(0.91 vv 0.50, p=0.0128).

Conclusions

The surgical technique of LM is similar in both cohorts of women and not complicated by age. There was a small reduction in estimated blood loss and drop in haemoglobin in the peri-menopausal group which could reflect the reduction in vascularity of fibroids at this age. There was no difference in the resolution of symptoms between the groups, patient satisfaction was significantly less in the peri-menopausal women leading us to question whether surgical management is the most appropriate choice of management for them. This warrants further investigation into surgical recovery in peri-menopausal women and patient satisfaction with alternative forms of fibroid management to optimise treatment in this group of women.

ES24-0392
Free Communication 7 Fibroids + Imaging + Laparoscopic Surgery

Progression of Leiomyomas During Ulipristal Acetate (UPA) Therapy Prior to Surgery

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Background

Objectives. UPA therapy is known to induce amenorrhea, and to reduce the size of myomas. However, little information is available on patients who failed treatment. The objective of our study is to determine the proportion and the characteristics of patients with increased volume of myomas during UPA therapy.

Methods

Methods. Since January 2013, patients with symptomatic myomas have been systematically treated by UPA 5mg/day for 3 months prior to surgery in our center. The characteristics of patients who failed treatment were analyzed and compared to preliminary data providing from PREMYA study, a prospective multicenter non-interventional study on UPA in fibroids (NCT01635452).

Results

Results. Among 48 patients treated, 2 (4.2%) experienced unexpected increased volume of their myomas. The first case was a 24-year, G0P0, African woman, admitted for distension and anemia related to multiple fibroids. During UPA therapy, the first dominant type 3 fibroid increased from 72x65x71mm (173cm3) to 82x65x79mm (219cm3) (+27%). The second dominant type 5 fibroid increased from 71x64x73mm (172cm3) to 77x64x84mm (218cm3) (+27%). The fibroids were homogeneous and remained unchanged by MRI. A multiple myomectomy was performed by laparotomy. Histopathology showed that fibroids were benign cellular leiomyoma. The second case was a 29-year, G0P0, caucasian woman, admitted for abdominal distension related to a pelvic mass initially diagnosed as a single type 5 fibroid of 130x120x70mm (624cm3). During UPA therapy, the mass increased in size and the patient complained of moderate peritoneal and pleural effusion. Malignancy was suspected and the patient underwent a whole body evaluation by PET/CT and MRI. The fibroid was heterogeneous and measured 190x160x110mm (1887cm3) (+302%). No metastasis was identified. A single myomectomy was performed by laparotomy. Histopathology confirmed the leiomyoma was benign. After 3 months, no more effusion was observed by CT scan, suggesting a Demons Meigs syndrome. A careful check for previous history of leiomyomatosis showed that the sister, mother, uncle and grandmother of the patient were also treated for recurrent cutaneous or uterine leiomyomatosis.

Conclusions

Conclusion. Compared to other patients, these two cases demonstrated two strong similarities: young age < 30 years, and large volume of fibroids > 150 cm3. Preliminary results from PREMYA study showed that among 1534 patients treated aged 44 (range 20-62), 77 (5%) were less than 30 years. The median volume of the three largest fibroids was < 60cm3 and did not change according to age. The proportion of improvement in symptoms was not significantly different in patients < 30 years and patients > 30 years, after 3 months (77% and 76% respectively), and after 15 months of follow-up (75% and 61% respectively). Therefore, the only age does not seem to impact on UPA response; however young woman with large fibroids should be informed that resistance to UPA may occur.

ES24-0130
Free Communication 7 Fibroids + Imaging + Laparoscopic Surgery

Outcome of Outpatient Use of Myosure Technique - An Audit

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Background

Myosure is a newer hysteroscopic morcellator within the United Kingdom. There is a limited data on the safety and efficacy of this device within the UK. Very few centres are using this device to remove submucosal fibroids and endometrial polyps under general anaesthetic.
In our centre, we recently started using this device for outpatient use to remove submucosal fibroids and endometrial polyps.
Our main aim is to assess the safety, efficacy and acceptability of use of myosure, a hysterocopic morcellator in an outpatient setting.

Methods

A retrospective audit was carried out on all women who underwent outpatient myosure procedure between June 2014 – December 2014 at Royal Bolton Hospital.
Audit tool from NICE guideline 'hysteroscopic morcellation of uterine fibroids' was used as a audit standard.
Women diagnosed with submucosal fibroids and polyps at outpatient hysteroscopy were included.
Audit proforma was designed to look at age, parity, clinical presentation, whether fibroid or polyp, STEP W(**S**ite, **T**opography, **e**xtension of base, **p**enetration and lateral **w**all) scoring of the fibroid, length of total procedure, any complications, tissue resection- complete or partial. It also included procedure related details such as cutting time fluid deficit, estimated blood loss and any interval procedures.
A telephone survey was carried out to assess patient satisfaction.
Data was collected and analysed on an excel spread sheet.

Results

A total of 27 women had the outpatient myosure procedure. Majority of the women were multiparous presenting in their 4th and 5th decade with heavy menstrual bleeding as the most common reason. Around 50 % of the women had submucosal fibroids and rest of them had endometrial polyps. The STEP W score for majority of the women was between 3 and 4. There were no complications in any of the procedures. Average cutting time was less than a minute. Average estimated blood loss was around 10mls. Average fluid deficit was around 500mls. Over 95 % of the women had total resection of fibroid or polyp. Around 55% of women felt their symptoms improved significantly. Around 72 % of the women were found to be very satisified with the procedure and 81% suggested they would recommend it to a friend.

Conclusions

Myosure appears to be a safe and effective device for complete removal of endometrial polyps and grade0-1 submucosal fibroids. Myosure appears to be a relatively easy and quick procedure to remove polyps and soft fibroids. It is suitable for office gynaecology and known to have a steep learning curve for training purposes and has a good patient satisfaction outcome. However, a larger data is needed to assess overall complication rate.

ES24-0474
Free Communication 7 Fibroids + Imaging + Laparoscopic Surgery

Ulipristal Acetate: A New Option for Preoperative Uterine Leiomyoma Treatment

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Background

Uterine leiomyomas are the most common benign uterine tumours in women being symptomatic in 20 to 50 % of cases. Because no currently approved medical treatment is able to completely eliminate tumours the mainstay treatments remain surgical and more recently radiological. Several medical treatment options have been proposed in order to reduce heavy menstrual bleeding and shrink the size of the tumours. Until recently the only approved drugs for the treatment of symptomatic uterine leiomyomas have been GnRH agonists with considerable adverse effects due to low oestrogen levels. Recently a few studies have demonstrated that selective progesterone receptor modulator ulipristal acetate (UA) is effective in treating leiomyomas without causing menopausal symptoms or other significant side-effects.
Objective of our work was to assess the efficacy of preoperative treatment with UA for symptomatic leiomyomas regarding reduction of menstrual bleeding and leiomyoma volume.

Methods

Thirty four symptomatic patients due to uterine leiomyomas (age 26 to 57 years, mean 43.7 years) were assigned for preoperative treatment with 5 mg of UA daily for 12 weeks. Twenty six (76.5 %) patients were anaemic due to excessive menstrual bleeding, whereas 8 (23.5 %) presented with pain symptoms or growing leiomyomas. Before and 13th week after the treatment, among others, following parameters were observed: haemoglobin (Hb) concentration and volume of the largest 3 leiomyomas. After the treatment with UA all of the patients underwent surgery. Seventeen (50.0 %) patients had supracervical laparoscopic hysterectomy, 2 (5.9 %) had total laparoscopic hysterectomy, in 15 (44.1 %) laparoscopic myomectomy was performed, whereas in 1 (2.9 %) classic myomectomy was necessary.

Results

At the end of the treatment course 28 (82.4 %) women were amenorrhoic and the other 6 (17.6 %) had a significant reduction in uterine bleeding. The reduction in bleeding was accompanied by improvement in Hb levels. Hb concentration increased in all 34 patients from average 101.1 g/L before the treatment to 124.9 g/L after the treatment. In 27 (79.4 %) patients there were significant reductions in leiomyomas volumes (average for 51.4 %), whereas in 7 (20.4 %) the shrinkage of tumours was less than 10 % or even an enlargement was noticed.
Eight patients (23.5 %) experienced mild side effects, mostly headaches, without a need for therapy discontinuation.

Conclusions

Preoperative administration of UA for 12 weeks effectively controls bleeding and reduces leiomyoma size, consequently improves quality of life and facilitates or even makes laparoscopic surgery feasible. No significant side-effects associated with other medications for leiomyoma treatment, especially GnRH agonists, were observed. It seems that a new promising preoperative treatment option for symptomatic uterine myomas has been emerging. Since there is no data on long-term impact of UA on general health, extensive research work is yet to be done.

ES24-0243
Free Communication 7 Fibroids + Imaging + Laparoscopic Surgery

Surgical Outcomes Following Fibroid Morcellation

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Background

Following recent concerns regarding laparoscopic myomectomy, we investigated the outcomes of patients who had undergone laparoscopic myomectomy at a major teaching hospital and local private hospitals

Methods

This is a retrospective review of women who underwent laparoscopic myomectomy from January 2004 to June 2014 at UCLH and at local private hospitals

Results

246 patients underwent laparoscopic myomectomy. Average number and size of fibroids removed was 1.86 *(range 1-10)* and 72.2mm *(range 10-200mm)* respectively. Breach of the uterine cavity occurred in 8.0%. The morcellator was used in 96% of cases. Average blood loss was 228ml *(range minimal-1500ml)* and 11 cases had blood loss >1000ml. Average post-operative admission was two nights *(range 0-7)*. Post-operative complications included one wound haematoma, one readmission due to urinary retention and one case of small bowel obstruction. No procedures were converted to laparotomy after attempting laparoscopic myomectomy. One additional planned laparoscopic myomectomy was converted to laparotomy due to sustaining a bowel injury during initial entry. This patient had a previous history of bowel surgery during endometriosis treatment. Another patient had a uterine mass inconsistent with a benign fibroid at hysteroscopy and diagnostic laparoscopy. The procedure was converted to laparotomy and the mass not morcellated. Histology revealed a malignant leiomyosarcoma and imaging revealed distant metastases. All morcellated fibroids had benign histology.

Conclusions

In this subject group, morcellation was successful and safe, with no cases of morcellation of malignant tissues.

In experienced hands, laparoscopic myomectomy appears to be safe and effective. When a fibroid appears suspicious, a biopsy should be taken and histology awaited prior to proceeding. Patient selection should be dependent on co-morbidities, in addition to site, size, number and location of fibroids.

ES24-0068
Free Communication 7 Fibroids + Imaging + Laparoscopic Surgery

Esmya- the Belfast Trust's Experience

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Background

Fibroids are a large financial burden on the NHS they account for 75,000 inpatient interventions per year in England alone.
The aim of our study was to assess the effectiveness of Esmya as a treatment for fibroids. Including, the impact on fibroid size, symptom improvement, side effects of Esmya and subsequent treatment required.

Methods

Retrospective review of all patients in the Belfast Trust prescribed Esmya from August 2012 and October 2014.
Twenty-six patients were identified and data was collected through retrospective chart and ECR review.

Results

The commonest primary presenting complaint was heavy menstrual bleeding. There was 53% significant improvement in menstrual bleeding, 58% have had further treatment since being prescribed Esmya, most commonly myomectomy. There was a statistically significant reduction in fibroid size pre and post Esmya treatment ($p<0.01$ using Wilcoxon Signed Rank test). The side effects of Esmya were not tolerated in 19% of patients, 2 patients (8%) of patients became pregnant while on Esmya highlighting the importance of counseling. There was no symptomatic response in 37% of patients who completed a course of Esmya.

Conclusions

Although Esmya is licensed as a pre surgery treatment for fibroids our study found that 42% of patients commenced on Esmya have so far required no further treatment.

ES24-0401
Free Communication 7 Fibroids + Imaging + Laparoscopic Surgery

Reproducibility of Endometrial Pathologic Findings Obtained On Hysteroscopy, Transvaginal Sonography, and Gel Infusion Sonography in Women with Postmenopausal Bleeding

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Background

The aim was to evaluate and compare inter-observer variation in endometrial pattern recognition with hysteroscopy (HY) and transvaginal sonography (TVS) and gel infusion sonography (GIS) with regard to the diagnosis of endometrial pathology.

See-and-treat HY is increasingly used in women with postmenopausal bleeding and increased endometrial thickness. Eye-directed biopsies are performed with use of small forceps. This technique is therefore dependent on the recognition of suspect endometrial pathology and has a high accuracy in the hands of experienced investigators. Small sized pathology can be removed, while removal of larger benign pathology may indicate another operative hysteroscopy. Indication for another operative hysteroscopy is dependent on eyes judgement of endometrial pattern and recognitions of the type of endometrial pathology. Ultrasonography may be used to select patients for endometrial sampling or hysteroscopy.Pattern evaluations on TVS, GIS, or HY are in general practice performed by different observers, and the reliability is dependent on the reproducibility between observers.

Methods

Prospective study at a University Clinic involving One hundred twenty-two consecutive women with postmenopausal bleeding and an endometrium thickness ≥ 5 mm.
Two observers using HY and 2 other observers using TVS and GIS independently evaluated the endometrial pattern in recorded video clips in these 122 patients (732 evaluations). Inter-observer agreement regarding findings obtained with TVS, GIS, and HY for a diagnosis of cancer, hyperplasia, polyps, and no endometrial pathology was expressed by kappa coefficients and compared.

Results

Inter-observer agreement (kappa) was as follows: identification of normal endometrium: HY (0.74), TVS (0.68), GIS (0.48); diagnosis of cancer: HY (0.56), TVS (0.59), GIS (0.34); classification in all categories of endometrial pathology: HY (0.70), TVS (0.47) and GIS (0.41) ($p < .05$ HY vs. GIS). The presence of additional endometrial polyps decreased agreement on HY in patients with hyperplasia or cancer. Observer agreement was poor regarding the diagnosis of hyperplasia by all techniques.

Conclusions

Observer agreement regarding both HY and TVS was reliable for the diagnosis of a normal endometrium, but moderate with HY, TVS, and only fair with GIS for a diagnosis of cancer. In patients with hyperplasia or cancer, agreement between observers was especially low in the presence of additional polyps when HY was used. These findings call attention to the need for systematic methods to improve reliability in endometrial pattern recognition by TVS,GIS and HY.

ES24-0440
Free Communication 7 Fibroids + Imaging + Laparoscopic Surgery

Supracervical Versus Total Hysterectomy in Women Undergoing Hysterectomy for Benign Gynaecological Disease - a New Danish Recommendation

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Background

In May 2015 we published a national clinical guideline on hysterectomy for benign gynaecological conditions in cooperation with the Danish Health and Medicines Authority. One of nine investigated areas of interest was whether to perform total or supracervical hysterectomy in women undergoing hysterectomy for benign gynaecological disease.

Methods

A guideline panel of gynaecologists predefined critical and important outcomes for the assessment. The critical outcomes were defined as *reoperation*, *urinary incontinence*, *sexual function*, *pelvic organ prolapse* and *cervical dysplasia*. The important outcomes were defined as *quality of life*, *cyclic vaginal bleeding*, *operating time*, *intraoperative bleeding* and *post-operative infections*. A search specialist conducted a systematic literature search for publications from 2004 to 2014 in English, Danish, Norwegian and Swedish. In our first search we looked for existing guidelines in the Guidelines International Network, the National Institute for Health and Care Excellence, the National Guideline Clearinghouse, the Scottish Intercollegiate Guidelines Network, the Health Technology Assessment Database, the Cochrane Library, MEDLINE, EMBASE, CINAHL and Danish, Swedish and Norwegian national directorates of health and societies for gynaecology and obstetrics. In our second and third search we looked for systematic reviews and primary literature in MEDLINE and EMBASE. Two independent experts screened the search results. The guideline panel reviewed the literature. A methodologist performed a meta-analysis based on the available evidence. The quality of evidence was rated according to the Grading of Recommendations Assessment, Development and Evaluation (GRADE).

Results

The literature search produced 269 hits for existing guidelines, 407 hits for systematic literature and 44 hits for primary literature. One systematic review (n = 1553) and one randomized controlled trial (RCT, n = 200) met the inclusion criteria. The quality of evidence for the critical outcomes was rated low to very low and for the important outcomes low to moderate. Evidence showed no differences in the critical outcomes. For the important outcomes evidence from 5 RCTs (n = 964) showed a higher risk of *cyclic vaginal bleeding* (RR 14.28 95% CI 5.51 to 36.98) after supracervical hysterectomy compared to total hysterectomy. Supracervical hysterectomy was associated with a shorter *operating time* and less *intraoperative bleeding*.

Conclusions

The overall quality of evidence was very low. The panel assesses that most women want to avoid cyclic vaginal bleeding after hysterectomy. Women with indications for hormone replacement therapy (HRT) that experience cyclic vaginal bleeding after supracervical hysterectomy should be treated with combined HRT. The panel assesses that the small differences in operating time and intraoperative bleeding are without clinical importance. Based on the available evidence, the balance between benefits and harms and patient values and preferences, the guideline panel gave a weak recommendation against supracervical hysterectomy in women undergoing hysterectomy for benign gynaecological disease.

ES24-0363
Free Communication 7 Fibroids + Imaging + Laparoscopic Surgery

The Impact of an Integrated Operating Room Dedicated to Minimally Invasive Surgery On the Presence of Problems with Technical Equipment

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Background

Surgical outcome is not only affected by surgical skills, but by the combination of patient, task, and individual factors, as well as team functioning and working environment. Especially in minimally invasive surgery (MIS), the latter are frequently compromised by surgical flow disturbances due to technology and equipment related failures. On theoretical grounds, performing MIS in a dedicated integrated operating room (OR) is supposed to be beneficial to patient safety when compared to MIS a conventional cart-based OR.

Methods

Using video recording, 40 consecutive laparoscopic hysterectomies (LH) that have been performed between November 2010 and April 2012 were analyzed by two different observers (20 in a conventional cart-based OR and 20 in an integrated OR). Interobserver agreement was calculated. Primary outcome measures were the number of surgical flow disturbances per procedure. Secondary, a qualitative assessment was made comparing the types, degree of influence and duration of these surgical flow disturbances for the two different OR settings.

Results

Patient and procedure characteristics were similar between the procedures performed in the conventional OR and the integrated OR. A total of 103 hours and 45 minutes was observed. Procedure duration (conventional OR vs integrated OR, minutes:seconds ± standard deviation), mean 161:09±27:38 vs 150:08±34:09, p=.269) and operation duration (skin-to-skin, mean 126:17±26:35 versus 115:42±30:38, p=.251) were similar. The interobserver agreement was high (kappa 0.85, p=.00). A total of 1651 surgical flow disturbances were scored (mean±SD per procedure N=40.8±18.9 versus 41.8±15.5, p=.86). More specifically, the mean number of surgical flow disturbances per procedure with regard to equipment (set-up of device, disturbance or problem regarding equipment, and intra-operative repositioning) were N=8.3±3.8 versus 9.9±4.7, p=.24. Overall, between the conventional OR and the integrated OR the total number of disturbances regarding the set-up of devices (N=16, 1:16±2:05 (mean±SD in minutes:seconds) versus N=27, 1:57±4.32, p=.55), disturbances or problems regarding equipment in general (N=133, 2:06±3:19 versus N=137, 1:52±2:18, p=.50), and intra-operative repositioning (N=16, 0:45±0:37 versus N=33, 0:39±0:32, p=.56) did not differ significantly either. The mean degree of influence seemed lower (set-up: 5.25 versus 4.15; disturbances regarding equipment in general: 5.82 versus 5.35; intraoperative repositioning: 4.63 versus 4.09).

Conclusions

There appears to be no difference in the number of surgical flow disturbances that occur during laparoscopic hysterectomy in a conventional cart-based OR in comparison to an integrated OR. However, those that occur in the integrated OR seem to be of a lower degree of influence on the disturbance of the surgical flow. Compared to a conventional OR, performing minimally invasive surgery in an integrated OR does not seem to reduce the number of surgical flow disturbances, however they are of a different type and have potentially fewer clinical consequences.

ES24-0503
Free Communication 8 All Categories

Surgical Approach to Hysterectomy for Benign Gynaecological Disease: Systematic Review

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Background

The four approaches to hysterectomy for benign disease are abdominal hysterectomy (AH), vaginal hysterectomy (VH), laparoscopic hysterectomy (LH) and robotic-assisted hysterectomy (RH). This systematic review assessed the effectiveness and safety of different surgical approaches to hysterectomy for women with benign gynaecological conditions.

Methods

Electronic databases were searched (until August 14, 2014). We also searched relevant citation lists. Randomised controlled trials were included in which clinical outcomes were compared between one surgical approach to hysterectomy and another. At least two review authors independently selected trials, assessed risk of bias and performed data extraction. Primary outcomes were return to normal activities, satisfaction, quality of life, intraoperative visceral injury and major long-term complications (e.g. fistula, urinary dysfunction).

Results

47 studies with 5102 women were included. The evidence was of low or moderate quality. The main limitations were poor reporting and imprecision. Overall, numbers of adverse events were low in the studies included.
VH versus AH (nine RCTs, 762 women)
Return to normal activities was speedier in the VH group: mean difference (MD -9.5 days, 95% CI -12.6 to -6.4, 3 RCTs, 176 women). There was no evidence of a difference between the groups for other primary outcomes.
LH versus AH (25 RCTs, 2983 women)
Return to normal activities was speedier in the LH group (MD -13.6 days, 95% CI -15.4 to -11.8; 6 RCTs, 520 women) but there were more urinary tract injuries in the LH group (OR 2.4, 95% CI 1.2 to 4.8, 13 RCTs, 2140 women). There was no difference between the groups for other primary outcomes.
LH versus VH (16 RCTs, 1440 women)
There was no e difference between the groups for any primary outcomes.
RH versus LH (two RCTs, 152 women)
There was no difference between the groups for any primary outcomes. Neither of the studies reported satisfaction rates or quality of life

Conclusions

Among women undergoing hysterectomy for benign disease, VH appears to be superior to LH and AH, as it is associated with speedier return to normal activities. When technically feasible, VH should be performed in preference to AH because of more rapid recovery and fewer febrile episodes post-operatively. Where VH is not possible, LH has some advantages over AH (including more rapid recovery) but these are offset by longer operating time. No advantages of LH over VH could be found. SP-LH and RH should be either abandoned or further evaluated since there is lack of evidence of any benefit over conventional LH. Overall, evidence has to be interpreted with caution as adverse event rates were low. The surgical approach to hysterectomy should be decided by a woman in discussion with her surgeon with respect to relative benefits and hazards. These benefits and hazards seem dependent of surgical expertise and may influence the decision.

ES24-0060
Free Communication 8 All Categories

Minilaparotomy is it a Suitable Surgical Approach for Gynecologic Diseases to Patients with High Body Mass Index? Mansoura Observational Study

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Background

Obese patients are at greater risk of gynecologic surgery. Laparotomy is generally performed, even though this approach is regarded as highly invasive, whereas laparoscopy, though minimally invasive, is relatively contraindicated because of the high conversion rates to laparotomy. The aim of this study to evaluate the feasibility of a minimally invasive approach by minilaprotomy in patients with high body mass index subjected to gynecologic surgery.

Methods

Females attending Mansoura university hospital admitted for gynecologic surgery (early stage endometrial cancer and benign disease, endometrial hyperplasia and ovarian cysts with body mass index (BMI) ≥ 40 kg/m² from sept 2011 up to jun. 2015 were enrolled in this observational study and submitted to minilaprotomy through pfenesstiel incision 4cm longitudinal incision in the rectus sheath about 6 cm ,aspiration of ovarian cysts through this minilaprotomy then complete surgery . Patients with a uterine size greater than the umbilical transverse line and with indication for vaginal surgery were excluded operative data and outcome were prospectively recorded.

Results

Minilaprotomy was feasible in 41 cases (82%) out of 50. In 6 women, the procedure was aborted due to ovarian malignant disease . In 2 cases, conversion was necessary due to severe adhesions , hemoglobin drop and postoperative stay were significantly reduced with cases with minilaprotomy . Complications were lower group: due to a significantly less incidence of wound dehiscence (OR 0.27, 95% CI 0.05-1.32, $p<0.05$).

Conclusions

Minilaprotomy is a feasible approach in the vast majority of gynecological conditions even in cases with higher body mass index with lower rate of complications.

ES24-0427
Free Communication 8 All Categories

First Generation Endometrial Ablation Technique Revisited with Improved Outcome. Retrospective Analysis of Series of 218 Patients with Premenopausal Dysfunctional Bleeding.

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Background

Premenopausal dysfunctional bleeding (PDB) is a common medical problem. When medical therapy fails, surgical options include endometrial ablation techniques or hysterectomy. In our presented study we looked at improving the technique for resection to achieve a very radical resection in the aim to also improve outcome. We also looked at identifing patient-related prognostic factors.

Methods

We included all ablations, operated with this technique, performed between September 2001 and December 2011 at the General Hospital of Turnhout, Belgium (n=218). In this technique all endometrial lining,also the fundal area and the area at the ostia and isthmique part is removed with deep cutting (video at presentation).The outcome was defined by the need for postoperative therapy (group 1: no therapy ; group 2 : therapy, but no hysterectomy ; group 3: hysterectomy). We also rated postoperative amenorrhea and patient satisfaction. The prognostic factors examined are presence of dysmenorrhea, a history of caesarean section, preoperative duration of blood loss, age, parity and a history of tubal ligation sterilisation. We used Excel 2011, Version 14.0.0 and Statplus Mac LE 2009 for our statistical analysis.

Results

The hysterectomy rate post-fgEA was 10%(22/218). The rate of amenorrhea (defined as cessation of bleeding from 3 months post-procedure until the moment the patient was interviewed) was 76%(165/218). 92%(202/218) of patients were either satisfied or very satisfied with the procedure and outcome. The only significant prognostic factor was the age of the patient at the time of the fgEA (p=0,0004 for mean age at time of fgEA and p=0,0433 for comparison pre- versus perimenopausal age).

Conclusions

The outcome of this fgEA technique is significantly improved compared to most first generation studies. The high amenorrhea and satisfaction rate and low postoperative hysterectomy rate, in low cost daycare setting and with very low complication rate, can compete with second generation techniques and hysterectomy. Drawback are the learning curve and potential complication rate suggesting the need for high volume and thus the need for referral to colleagues specialised in hysteroscopic operative techniques.

ES24-0305
Free Communication 8 All Categories

Urinary Tract Endometriosis: A Case of Silent Renal Loss

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Background

Endometriosis is a chronic debilitating disease presenting with a wide range of symptoms and effecting 5-15% of women. It is a complex multifactorial disease, characterized by the presence of endometrial tissues and glands outside the uterine cavity. Although more typically confined to the pelvis, deep infiltrating endometriosis can have a multifocal pattern of disease distribution with lesions effecting the retovaginal septum, ureter, bladder, and bowel.

Ureteric involvement can occur and in severe cases may lead to urinary tract obstruction, with subsequent hydronephrosis and potential loss of renal function in otherwise healthy young women. This disease can impact significantly on women's physical, psychological and social well-being.

Methods

A 32 year old nulliparous woman originally presented with increasing left loin pain and magnetic resonance imaging (MRI) demonstrated gross left sided hydronephrosis. Her renal function was raised with a creatinine of 93 and evidence of mild cortical thinning of the left kidney. Rigid cystoscopy and JJ stent was sited and retrograde studies demonstrated a dilated system with narrowing of the distal left ureter. Symptoms initially improved, however she reported symptoms of severe dysmenorrhea, dyspareunia and digestive problems including diarrhoea, intermittent constipation and dyschezia. Further imaging identified a nodule of the left uterosacral ligament and pelvic side wall causing extrinsic compression and left ureteric obstruction. A secondary nodule of the rectosigmoid colon with infiltration of the bowel wall and possible stenosis was suspected at colonoscopy.

Results

A multi-disciplinary surgical team comprising of gynaecology, colorectal and urology consultants assessed the patient pre-operatively. A joint laparoscopic surgical approach was performed. A 4 cm endometriotic nodule surrounding the left distal ureter was identified and ureterolysis performed with careful removal of the nodule to relieve external ureteric compression. The nodule extended to involve the left uterosacral ligament, which was completely excised. Thorough intraoperative assessment revealed a large endometriotic nodule involving the recto-sigmoid colon. Initially attempts to shave the nodule free from the bowel were attempted however due to the size, depth of infiltration and presence of significant stricture, rectosigmoid resection with primary re-anastomosis was performed. There were no intraoperative or post-operative complications and the patient made a full recovery. Post-operative MAG3 studies demonstrated no evidence of obstruction although reduced perfusion of the left kidney remains, with residual function of only 20%.

Conclusions

Diagnosis and treatment of deep infiltrating endometriosis should be performed in specialized centres in order to facilitate multidisciplinary collaboration. Clinical suspicion and prompt diagnosis of urinary tract endometriosis is important to salvage renal function. Although rare with a reported prevalence of 1%, ureteric endometriosis is often underestimated with a prevalence of up to 20% in patient series with severe endometriosis. Minimally invasive techniques are feasible in the management of endometriosis and treatment should be tailored according to disease localization.

ES24-0141
Free Communication 8 All Categories

Conversion From Laparotomy to Laparoscopy: Management of a Ruptured Subcapsular Liver Haematoma in a Patient with Hellp Syndrome (Haemolysis, Elevated Liver Enzymes, and Low Platelets).

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Background

We present a case in which a suspected ruptured liver haematoma was treated laparoscopically, following a caesarean section, in a 33-year-old woman with HELLP syndrome.

Methods

A 33-year-old nulliparous woman at 37+5â€…weeks of gestation, presented with severe sudden onset epigastric pain and hypertension. The first blood tests revealed a severe hepatic dysfunction/haemolysis and thrombocytopenia consistent with pre-eclampsia/HELLP syndrome. There were no signs of bleeding and we observed a good fetal condition. The patient was stabilized on magnesium sulfate and labetalol and a caesarean section (low transverse incision) was performed. At the end of the operation the blood pressure was remarkably low and blood loss from the upper abdomen was suspected. The fascia was sutured, after a trocar was introduced at the umbilicus to perform a diagnostic laparoscopy of the upper abdomen. A ruptured subcapsular liver haematoma was seen which was treated with Tachosil®, fibrin sealant patch, packing with a gauze and momentarily high intra-abdominal pressure. The patient remained stable after removing the gauze and lowering the intra-abdominal pressure. After the operation she was transferred to the intensive care unit; in total there was 2500cc blood loss for which several blood agents were given.

Results

Two days after the operation the patient was transferred to the obstetric high care ward. She still suffered from dyspnoea and fever. Imaging showed a large haematoma of the liver and pleural fluid; this was treated conservatively and with antibiotics. 19 days post operative the patient went home with labetalol and antibiotics per os. Three weeks thereafter the patient did not need any further medication and was slowly recovering; the haematoma might take up to several months to resolve completely.

Conclusions

Subcapsular ruptured liver haematoma is a rare, but life-threatening, complication of pregnancy. Surgical management may include drainage, tamponade by packing or hepatic resection. In this case management by laparoscopy, following the caesarean section instead of a midline incision, proved to be a minimal invasive method to diagnose and treat a bleeding in the upper abdomen.

ES24-0159
Free Communication 8 All Categories

Sliding Myomas with Ulipristal Acetate

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Background

Ulipristal acetate (UA) is a new treatment for myomas now available in France. It accomplishes two goals: improving the haemoglobin rate by amenorrhea, and decreasing the volume of the myomas. The primary indication is preoperatively to elective surgery for patients with leiomyomas.

These results were show by the PEARL I (1) and PEARL II (2) studies.

The implementation in 2011 of the latest international classification system for myomas (3), allows an easy comparison of myoma's location before and after treatment.

Methods

In this paper, we are reporting four cases of myoma migration.

Results

In three of the cases, patients complained of menorrhagia and had a Higham score > 500 (4). They underwent a 3D pelvic ultrasound and either a hydrosonography or hysteroscopy. All three women were diagnosed with one type 2-5 myoma larger than 5cm (fig I). They were treated with ESMYA® 5mg a day for 3 months. The control ultrasound showed that all three myomas had been expelled in the uterine cavity (fig II) and in one case, even the cervix. For one woman the situation was exactly the opposite. She came consulting for menorrhagia. Ultrasound and hysterosonography showed a type 0 fibroma of 29 x 31mm (fig III). She was treated with ESMYA® 5mg for three months, expecting an improvement of her heamoglobin prior to operative hysteroscopy. The control ultrasound no longer showed the type 0 myoma, but instead a type 3 intramyometrial myoma (fig IV). Sonography showed an empty cavity. The patient was amenorrheic.

Conclusions

The myomas' migration could be explained by an apoptotic effect of ulipristal acetate on the fibroid cells that is probably similar to what has been observed after embolization. In all four cases, the ESMYA® treatment lead us to reconsider the surgical route and in one case the surgical indication. We recommend to systematically perform an ultrasound prior to surgery after preoperative treatment with UA.

ES24-0318
Free Communication 8 All Categories

Deep Endometriosis is Associated with the Highest Level of Perceived Stress: Effect of Surgical Treatment

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Background

Endometriosis is a gynecological disease affecting women of reproductive age. Typical symptoms are dysmenorrhea, chronic pelvic pain, dyspareunia, and infertility. Endometriosis is categorized indifferent types: peritoneal endometriosis, ovarian endometrioma (OMA), and deep endometriosis (DE). The types of pelvic pain are related to the anatomic location of endometriosis. Stress is consistently reported as a central and destroying component of life in women with endometriosis resulting by a negative correlation between pain and quality of life. The aim of our present study was to investigate the amount of perceived stress in women with different forms of endometriosis-related pain before and after surgical treatment.

Methods

A group of women (n=98) referred to our center for chronic pain and endometriosis were enrolled in this study. All women underwent to a clinical evaluation including assessment of pain, perception of stress using the perceived stress scale (PSS) and an ultrasonographic examination in order to evaluate preoperatively the extension of the disease. The PSS is a widely used psychological instrument for measuring the global perception of stress; it is a measure of the degree to which situations in one's life are appraised as stressful. PSS score is divided into four categories (range, 0–40 points): 0–6, low level of stress; 7–19, medium level of stress; 20–25, high level of stress; and >26, very high level of stress.
Surgical treatment confirmed the diagnosis of endometriosis as follows: OMA (n=34), mix OMA and peritoneal (n=23), mix OMA and DE (n=21), and DE (n=20). The surgical strategy consisted of the laparoscopic excision of all visually suspected endometriotic lesions performed by surgeons with experience in laparoscopic radical resection of endometriosis.
Painful symptoms and perception of stress were recorded 1 month after surgery.

Results

According to the different forms of endometriosis, women with DE or DE+OMA had the highest PSS levels, which significantly decreased in both groups after surgery ($P<.0001$). Women with OMA or OMA+peritoneal endometriosis presented with lower PSS than patients with DE and therewere no significant changes of PSS after surgical treatment.When evaluated in all patients, PSS score showed a significant decrease after surgical treatment ($P<.0001$).When evaluated before and after surgery, according to the severity of pain, a direct correlation was found between PSS levels and severity of pain($p<0.01$).

Conclusions

Different forms of endometriosis are associated with different levels of stress perception, suggesting a correlation between the severity of the disease and the intensity of the stress. Women with DE or DE+OMA showed the highest severity of painful symptoms, which strongly correlated with high level of stress perception. Surgery decreased both stress perception and pain score. The assessment of stress evaluation in endometriotic women should be part of the management, particularly for patient with DE (and associated forms) who need support with a long-term follow-up.

ES24-0242
Free Communication 8 All Categories

Inhalatory Analgesia with Nitrous Oxide Vs Paracervical Infiltration Vs Control Group in Hysteroscopic Polypectomy: Randomised Controlled Clinical Trial

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Background

Our objective is to compare pain produced by hysteroscopic polypectomy in Control Group vs. Paracervical Local Anesthesia and Inhalatory Analgesia with Nitrous Oxide.

Methods

This is a randomized clinical trial in which 108 patients undergoing polypectomy by office hysteroscopy were divided into three groups (n=36 in each group):

- Group A received no analgesia (Control Group)

- Group B received paracervical infiltration with 1% Lidocaine

- Group C received inhalatory analgesia with 50% Equimolar Mixture of Nitrous Oxide and Oxygen

The surgical instruments used for the procedure were a Karl-Storz ® double-way 3.5mm hysteroscope with 0.9% saline solution irrigation and Karl- Storz® scissors, Versapoint® Twizzle 5Fr electrode or Smith & Nephew ® Truclear System morcellator for polypectomy.

Pain was assessed by Visual Analogical Scale (VAS) from 0 to 10. Test statistics and p values have been estimated using SPSS 15.0. Complications, tolerance to pain, grade of satisfaction and descriptive statistic data have been collected.

Stratified statistical analysis was also performed for the groups of pre and post- menopausal, nulliparous and multiparous women.

Results

The mean age was 49.8 years old (45.5 – 54.1) for the Nitrous Oxide group, 50.3 years old (46 – 54,7) for the Paracervical Infiltration group and 48 years old (44.1 – 51,9) for the Control Group ($p>0.05$).

The mean value of pain, measured by VAS (from 0 to 10), was 5.1 in the Control Group, 3.5 in the Paracervical Infiltration group and 3.4 in the Nitrous Oxide group. These differences were statistically significant when the Control Group was compared to the other two groups: $p=0.01$ vs. Nitrous Oxide and $p=0.02$ vs. Paracervical Infiltration. However, there were no significant differences between Nitrous Oxide and Paracervical Infiltration ($p>0.05$).

Complications were more frequent in Paracervical Infiltration group, including 12.5% vagal syndrome and 19% bleeding. Dizziness, nausea and vomiting had a higher incidence within the Nitrous Oxide group, and intolerable pain was more common (11%) in the Control Group.

Stratified analysis comparing pain in VAS in premenopausal women showed differences ($p<0.01$) in favor of Nitrous Oxide (VAS 3.22) vs. Paracervical Infiltration (3.36) and Control Group (5.2).

Stratified analysis for multiparous women showed a mean pain in VAS of 3.16 for Nitrous Oxide, 3.40 for Paracervical Infiltration and 4.79 for the Control Group ($p=0.02$). No differences between treatments in nulliparous or postmenopausal women were foun

Conclusions

Hysteroscopic polypectomy is a painful procedure. Both Nitrous Oxide and Paracervical Infiltration are useful in relieving pain vs. Control Group, but there are no significant differences between them. However, Paracervical Infiltration has a higher incidence of complications. This could make the use of Nitrous Oxide more advisable for hysteroscopy

ES24-0489
Free Communication 8 All Categories

Development of a core outcome set for heavy menstrual bleeding

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Background

Core outcome sets (COS) are an agreed, standardised set of trial outcomes that clinicians and patients consider critical or important in the management of a condition. COS are disease specific and should form the minimum data sets to be collected and reported in clinical trials of that condition. The aim of COS is to prevent selective reporting, improve data synthesis.

Methods

Heavy menstrual bleeding (HMB) is an important health issue which affects 1 in 5 women of reproductive age. Currently there is no COS for HMB. Developing a COS for HMB will ensure that future trials report useful outcomes that benefit women, clinicians and healthcare service providers alike.

COS development will follow methodology recommended by COMET (Core Outcome Measures in effectiveness Trials) and will include all relevant stakeholders. Reported outcomes are identified by literature searches, and patient workshops are held to identify outcomes that are most important to them. The outcomes are combined into a long list and a three round Delphi survey is conducted asking participants (patients and their families, clinicians, nurses) to rate the importance of each outcome to move towards consensus. A consensus meeting is held to finalise the COS. Dissemination of the HMB COS will be via publication in CROWN (Core Outcomes in Women's Health) initiative journals.

Results

We will present results of the first stages of development of a COS for HMB and discuss the heterogeneity that exists across studies. We will also promote our HMB Delphi survey and encourage interested clinicians to register their interest.

Conclusions

Development of a core outcome set is essential for improving the quality of future trials of interventions for HMB.

ES24-0019
Free Communication 9 Urogynaecology + Oncology

Laparoscopic Lateral Suspension with Mesh for Vaginal Vault Prolapse

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Background

Pelvic organ prolapse is a highly prevalent condition, especially in an increasingly obese Western society. The sacrocolpopexy is considered the gold standard in the treatment of vaginal vault prolapse (VVP). However, laparoscopic dissection at the level of the promontory may be challenging, particularly in obese women and when an anatomical variation exists.This may be associated with rare but serious morbidity as well as life-threatening vascular injury. We report here the largest available series of 167 patients operated with laparoscopic lateral suspension with mesh (LLS), as an alternative procedure, avoiding dissection at the promontory.

Methods

The consecutive cohort study included all women treated by LLS for symptomatic VVP between January 2004 and October 2011. The technique consists of a T-shape polypropylene mesh, placed and fixed in the vesico-vaginal septum until the vaginal apex, suspended bilaterally to the abdominal lateral wall, 4-5 cm posterior to the anterior superior spine. Some patients were additionally treated with a polypropylene mesh placed and fixed in the recto-vaginal septum or with standard posterior colporraphy. Anatomic cure was defined as POP-Q sites Ba, C and Bp as less than -1 cm at any point in time during follow-up. Secondary outcomes were recurrence rate, re-operation rate for symptomatic recurrence and mesh-related complication rate.

Results

167 patients were treated. Mean overall follow-up was 93 months. 41.9% of patients had concomitant surgery for stress urinary incontinence (SUI). 4.3% of operated women had minor postoperative complications rated grade 1 or 2 on the Dindo Clavien scale, 6 patients (3.7%) had grade 3 complications including 4 bladder injuries sutured immediately and 2 re-operations within 16 days postoperatively. 98.2% of patients were satisfied with the outcome of the operation at 3 months. Anatomic recurrence rate at one year were 4.9% for the anterior, 4.2% for the apical and 9% for the posterior compartment. At one year, 72% of patients were asymptomatic for prolapse. There was clinically and statistically significant anatomic improvement for all compartments. 12.1% of patients had postoperative SUI. 14 patients had erosion of the meshes (8.4%). The total re-operation rate for prolapse recurrence was 9.1%.

Conclusions

LLS for VVP is a feasible, reproducible and safe technique with promising long-term results and a trend to high patient satisfaction.
LLS represents an attractive alternative in high morbidity patients or with difficult access to the promontory.

ES24-0249
Free Communication 9 Urogynaecology + Oncology

Determination of a Central Avascular Triangle Within the Obturator Foramen: a Radioanatomic Study

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Background

The pelvic organ prolapse is a common condition that affects nearly 30% of women and thus constitutes a public health problem. The placement of transobturator anterior vaginal mesh involves inserting two needles in both obturator areas by palpation of anatomical structures without any visual control. Besides the complications related to the use of vaginal implants, many serious bleeding complications relative to the passage of the needles in the obturator area have been reported. In a previous anatomical study, we demonstrated that the passage of the posterior needle involved a risk of injury to the obturator vessels. Currently, we lack anatomical landmarks to guide urogynecological surgeons, especially for POP vaginal repair.
The aim of this study was to map vascular anatomy of the obturator foramen using fixed anatomical landmarks and to describe an avascular area in order to reduce the potential risk of neurovascular injury.

Methods

Twenty obturator regions were dissected in 10 fresh female cadavers at Paris School of Surgery and the Department of Anatomy, Université Paris Descartes. Dissections were realized in the dorsal lithotomy position for the abdominal approach and the gynecological position for the perineal approach. Furthermore, 104 obturator regions were reconstructed by angiotomodensitometry from 52 women under investigation for suspected arterial disease at the radiological center “Centre Cardiologique du Nord (CCN)”. The anatomy of the obturator region was mapped by measuring the distance of vascular structures from the middle of two branches of the iliac bone, which were used as fixed landmarks.

Results

The anterior and posterior branches of the obturator vessels were identified on the obturator membrane, running along the bone and describing a circle by perineal approach. The central triangular part of the obturator area was free of vessels. The caliber of the vessels also varied. We observed complete anterior or posterior obturator arteries in 89% (n=92) of cases. The arteries were thin or absent in 13% (n=13) and 9% (n=9) for the anterior and the posterior branch, respectively. The bifurcation of the obturator artery was at a mean (SD) distance of 30.0 mm (4.5) from the middle of the ischiopubic branch (MISP). The anterior branch of the obturator vessels was 15.2 mm (10.1) from the MISP. The posterior branch of the obturator vessels was 5.5 mm (4.0) and 23.6 mm (8.7) from the middle of the outer edge of the obturator foramen (MOE) and the MISP, respectively. Using the 5° and 95° percentiles of these measurements we defined a central avascular triangle.

Conclusions

Our data show that, beyond inter-individual variations, a central triangular avascular area can be identified in the obturator foramen between the posterior and anterior obturator artery. This area is based on the distances of the vessels with fixed bone landmarks.

ES24-0457
Free Communication 9 Urogynaecology + Oncology

The Laparoscopic (L) Vs Robot-assisted (RA) Sacrocolpopexy. Medium-term Anatomical and Functional Results.

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Background

The aim of the study is to compare morbidity, satisfaction and anatomical and functional results after laparoscopic vs robot-assisted sacrocolpopexy.

Methods

Eighty-six patients underwent sacrocolpopexy between 2003 and 2011 in two university hospital: 37 robot-assisted (RA) in Nancy center and 49 laparoscopic (L) in Poissy center. All patients were then contacted and responded to a questionnaire of postoperative satisfaction (PGI-I) and many specific questions about current symptoms and events occurring since the surgery.

Results

Age, menopausal status and history of previous surgery were similar in both groups. Prolapse of the anterior (85.4% vs 54.1%, $p=0.001$) and middle (72.9% vs 27%, $p<0.0001$) compartments were more frequent in group “L”, compared to “RA” group. BMI (25.9 +/- 4.3 kg/m2 vs 24.2 +/- 2.7 kg/m2) and previous surgery for POP (78.4% vs 4.1%, $p=0.02$) were significantly higher in the “RA” group. The mean follow-up was 91.2 +/- 26.1 months in the “RA” group and 55.7 +/- 22 months in the “L” group ($p<0.0001$) . The mean PGI-I score (satisfaction rate) was 1.68 +/- 1.27 in the “RA” group and 1.70 +/- 1.14 in the “L” group ($p=0.92$). The mean operative time and hospital stay were significantly higher in the “RA” group (198 min versus 173 min, p=0,02). Intra and immediate postoperative complications rates (4.6% Clavien-Dindo grade â©¾ II) were low in both groups. There were 4 reoperations for recurrence in “L” group and none in “RA” group.

Conclusions

Despite a higher operative time and a longer hospital stay, the robot-assisted sacrocolpopexy offers anatomical results and overall satisfaction comparable to those obtained by conventional laparoscopy in the medium-term. Morbidity and reoperation rates were also comparable between the two techniques. The benefit of the robot-assisted sacrocolpopexy has not been demonstrated in our study.

ES24-0138
Free Communication 9 Urogynaecology + Oncology

Quality of Life, Symptoms and Satisfaction After Laparoscopic Sacrocolpopexy. Predictive Factors of Post-operative Satisfaction.

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Background

The Pelvic Organ Prolapse (POP) is a common condition that can lead to urinary, vaginal, anal and sexual disorders, with an impact on the Quality of life (Qol). Laparoscopic Sacrocolpopexy (LSCP) is currently considered the reference technique for POP repair, but it is not free of pelvic functional disorders. However, published results are focused on the short and medium term anatomical results. Therefore, we lack data for pelvic disorders, sexuality, pain and women's satisfaction and Qol after LSCP. The main objective of our study was to evaluate the medium term effect of the LSCP on POP symptoms. Our secondary objective was to determine if some pre and intra-operative factors are associated with post-operative women’s satisfaction.

Methods

This observational single center study included women suffering from stage 2 and above POP, who underwent LSCP between October 2004 and January 2011. Included patients completed pre and postoperative validated self-questionnaires. LSCP was performed with an exclusive anterior mesh or double meshes. Associated procedures included supracervical hysterectomy and midurethral sling procedures (MUS). Our study has received a favorable opinion from the French Ethics Committee.

Results

One hundred and fifty two patients, average aged of 57.9 (±8.9) were included and 92 returned the completed questionnaire (60.5%). The mean follow-up was of 50.5(±20.3) months (4.2 years). The mean postoperative PFDI 20 score was 52.8 (±47.0), the PFIQ 7 one was 15.44 (±32.17) and the ICIQ one was 6.1 (±20.8). The PISQ12 mean score was 34.8 (±7.57) but 33 patients didn’t complete this questionnaire. The mean postoperative EuroQol-5D score 0.91(±0.01) was significantly higher than the preoperative one 0.7(±0.2) ($p<0.00001$). Postoperative satisfaction was high with a PGI-I score of 1.80 (±1.1). To the question “Would accept the same operation?”, 89% of the patients answered positively and 87% “would recommend LSCP to a friend”. Pre-operative severe constipation and urinary incontinence are associated with less post-operative satisfaction (p=0.014 and 0.045 respectively) whereas patients, who principally complain of a vaginal bulge seems to be more satisfied by LSCP (p= 0.001). Fixation of the posterior mesh to levator ani muscles is associated with a better satisfaction (p= 0.01) but double meshes or subtotal hysterectomy do not improve patient’s satisfaction.

Conclusions

At a mean follow-up of 4.2 years, the overall quality of life seems improved and patient satisfaction remains high. Definitely, LSCP can correct the POP symptoms but not necessarily the pelvic floor disorders associated with POP. Fixation of the posterior mesh to levator ani muscles could be recommended because it improves postoperative satisfaction.

ES24-0065
Free Communication 9 Urogynaecology + Oncology

The Effect of Sacrocolpopexy/sacrohysteropexy On External Genital Dimensions and Sexual Function.

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Background

We set out to assess the effect of Sacrocolpopexy (SCP) and Sacrohysteropexy (SHP) on external genital dimensions and on sexual function using a before and after study method.

Methods

We carried out a retrospective audit of all SCP/SHP cases performed over a 3 year period 2011-2013 (62 cases). We looked at the rate of conversion to laparotomy, hospital stay, morbidity and compared pre and 3 months post-operative Pelvic Organ Prolapse Quantification (POP-Q) values and Pre and Post-operative electronic Pelvic Assessment Questionnaire (e-PAQ) values. Data was entered into an Excel database and then transferred to an SPSS 20 database for analysis.

Results

Mean age was 58.37 (28-82) and mean BMI was 27 (20-38). 44 cases were laparoscopic and 18 were open procedures (12 being converted from laparoscopic). 5 procedures were pure SCP/SHP, the remaining were combined with other procedures. Mean inpatient stay was 2.14 days (SD 0.89) and there were 12 minor complications. One patient returned to theatre due to bowel herniation into a laparoscopy port site. There was a significant change in mean e-PAQ prolapse score from 57.82 (SD 23.98) to 4.85 (SD 10.47) (P=0.000) and in point C (POP-Q) from a mean of 0.57 to -6.8 (p=0.000). Cases combined with perineorrhaphy were excluded to examine the effect of SCP/SHP on external genital dimensions in the remaining 56 cases. We found a significant increase in mean perineal body (PB) length from 2.8cm to 3.5cm (P=0.000) and a significant decrease in mean genital hiatus (GH) length from 4.6 cm compared to 4.03 (p=0.026). There was a significant improvement in mean e-PAQ score for vaginal sex (mean difference 18.39, 95%CI 5.64-31.14, p=0.006), dyspareunia (mean difference 12.15, 95%CI 5.21-19.08, p=0.001), general sex life (mean difference 7.93, 95%CI 0.77-15.09, p=0.031), urinary sex variable [effect of urinary symptoms on sexual function] (mean difference 12, 95%CI 2.75-21.24, p=0.013), vaginal sensation (mean difference 10.05, 95%CI 3.75-16.36, p=0.003) and Quality of Life impact of vaginal symptoms (mean difference 32.97, 95%CI 17.14-48.79, p=0.000). Interestingly, there was no significant change in total vaginal length (POP-Q) or vaginal capacity (ePAQ). We found no significant change in bowel evacuation, faecal incontinence or impact of bowel symptoms on sexual function according to e-PAQ scores.

Conclusions

Our results suggest that SCP/SHP can significantly change external genital dimensions. This suggests that the perineal body, similar to the external genital hiatus, is a dynamic measurement affected by the presence of apical prolapse. If this is true, then repairing a symptomatic deficient perineal body should include assessment and repair of any concomitant apical prolapse. We plan to study this hypothesis further. SCP/SHP didn’t significantly change vaginal capacity sensation but overall sexual function was improved mostly by reducing dyspareunia.

ES24-0382
Free Communication 9 Urogynaecology + Oncology

Risk of Urinary Stress Incontinence After Colposacropexy. Role of Previous Urodynamic Test.

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Background

The aim of this study was to determine the urodynamic measures that can determine the risk of developing stress urinary incontinence following a colposacropexy surgery for Pelvic Organ Prolapse.

Methods

Medical, urodynamic and surgical data of 40 patients who underwent colposacropexy in our institution were collected. Epidemiologic data and surgical, obstetric and gynaecological history were reported, including previous urinary status, incontinence symptoms and type and grade of pelvic organ prolapse, as well as intraoperative and postoperative follow-up data.

A statistical analysis was carried out using SPSS PASW Statistics 18 software to study the potential correlation of the collected data with the onset of urinary incontinence symptoms post colposacropexy procedure.

Results

Median age of patients was 58 years (range 39-72 years), and median Body Mass Index was 26.8 (range 20.3 – 35.7). Mean parity was 2.2 children (range 1-4). Previous gynaecological surgery was noted in 97.5% of patients (n=39), 95% of them (n=38) had previous hysterectomy. 22.5% (n=9) of patients referred to have urinary stress incontinence previously to surgery and 25% (n=10) had previous urinary urgency. Urodynamic test was performed in 77.5% of patients before surgery, and its results showed that 45.1% of patients (n=14) had urethral hypermobility, and 32.2% (n=10) presented involuntary detrusor contractions.
Laparoscopic approach was performed in 77.5% (n=31) of patients, robotically assisted laparoscopy was performed in 20% of them (n=8) and 2.5% (1 patient) underwent abdominal surgery.

In clinical exam performed 1 year after surgery, complete anatomic correction of prolapse was reported in 96.7% of patients. 24.1% of patients presented stress urinary incontinence, and 17.3% of patients presented urinary urgency. 10% (n=4) of patients required surgery for urinary incontinence in the following year. Rate of dyspareunia found after surgery was 5% (n=2 patients), and constipation rate was 32.5% (n=13 patients).
A significant correlation between urethral hypermobility documented in the urodynamic test and risk of urinary stress incontinence after the colposacropexy was identified (p=0.028; OR=6,22 IC95%=1.2 – 31.9) but only in patients who hadn’t received previous urinary incontinence surgery. Correlation between previous stress urinary incontinence or urinary urgency and the persistence of urinary incontinence post-colposacropexy procedure was not identified.

Conclusions

Based on our series, colposacropexy is an effective surgical procedure with excellent anatomic results and feasible by minimally invasive techniques therefore with a very low rate of complications. It has to be considered that some patients will need a second time surgery for urinary incontinence.
It may not be necessary to perform any anti-incontinence surgery at same surgical time, due to the difficulty to identify patients who will develop urinary stress incontinence. Only those patients who had previous documented urethral hypermobility should be considered for a concomitant anti-incontinence procedure

ES24-0331
Free Communication 9 Urogynaecology + Oncology

Risk Factors for Postoperatively Diagnosed Uterine Cancer in Hysterectomy Procedures: An Analysis of Diagnostic Discordance in a United States Insurance Claims Database.

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Background

Recent studies have brought attention to the risk of undiagnosed uterine cancer in patients undergoing hysterectomy. This study assesses the prevalence of diagnostic discordance in hysterectomy procedures and evaluates potential risk factors for such discordance.

Methods

Truven MarketScan® Database is a U.S. insurance claims database with longitudinal records of ~150 million patients. All hysterectomies from 2006-2013 were identified and two time periods were established: Preoperative Period (PRE) of 90-days prior to the hysterectomy and Postoperative Period (POST) including the day of hysterectomy (INTRA) to 90-days after. Diagnostic discordance (DISCORDANCE) was defined as patients with no PRE-diagnosis of gynecologic cancer and a PRE-benign diagnosis (endometriosis, leiomyoma, uterine bleeding, or uterine prolapse/other) and POST-Uterine Cancer diagnosis. Prevalence was calculated for all eligible PRE-benign patients. Potential risk factors for DISCORDANCE were identified and included in a multivariable regression model.

Results

A total of 445,536 patients underwent hysterectomy for a benign indication. The overall DISCORDANCE prevalence was 0.69% (95% CI[0.67%-0.72%]), by approach: Open 1.14% (95%CI[1.09%-1.19]); Laparoscopic 0.42% (95%CI[0.39%-0.45%]); Vaginal 0.13% (95%CI[0.27%-0.35%]). Relevant risk factors included (Table 1): open surgery, age, procedure year, PRE-imaging, and solitary PRE-diagnosis of uterine bleeding.

Table *DISCORDANCE* Risk Factors (Multivariable Model)

	Odds Ratio	95%CI	
HYSTERECTOMY-YEAR 2006	1		
2013	1.478	1.267	1.725
AGE			
<40	1		
40-44	1.588	1.334	1.891
60-64	21.864	18.404	25.974
70-74	42.570	28.700	63.143
75-79	50.671	33.375	76.929
PRE-DIAGNOSIS			
Uterine-Bleed (UB)	1		
Endometriosis	0.338	0.239	0.478
Myoma	0.500	0.450	0.555
Prolapse/Other	0.321	0.285	0.361
PRE-IMAGING None	1		
CT	2.852	2.566	3.170
MRI	2.455	2.144	2.811
Ultrasound	1.532	1.397	1.680
APPROACH			
Laparoscopic	1		
Open	1.486	1.189	1.858
Vaginal	0.570	0.486	0.669
MORCELLATION	0.482	0.238	0.973
UTERINE-SIZE			
<=250g-vs-Not-Specified	0.551	0.442	0.685
>250g-vs-Not-Specified	0.804	0.620	1.043

Conclusions

Diagnostic discordance as defined in this analysis was observed in approximately 1 out of 145 hysterectomies and the risk varied by surgical approach, patient characteristics, and clinical factors.

ES24-0432
Free Communication 9 Urogynaecology + Oncology

Laparoscopic Radical Trachelectomy with Vaginal Assistance for Invasive Cervical Cancer

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Background

Nowadays radical trachelectomy as a fertility-sparing option for patients with invasive cervical cancer is applicated in clinical practice in many medical centers worldwide. Vaginal and abdominal approaches are the most common. Radicality of vaginal trachelectomy and fertility outcomes after abdominal trachelectomy are the main topics of discussion . As an alternative for these approaches laparoscopic trachelectomy was developed and began to be used in some medical centers.

Methods

From October 2014 11 laparoscopic radical trachelectomies for cervical cancer stage IB1 and 5 for stage IB2 after neoadjuvant chemotherapy have been performed in our clinic. Pelvic lymphadenectomy and parametrial dissection were done laparoscopically. Resection of uterine cervix with dissected parametria and uterovaginal anastomosis were performed through the vaginal route. In all cases uterine arteries were preserved.

Results

Mean operative time was 247 min, with minimal blood loss and fast recovery. We didn`t observed any complications in this group of patients. At median follow up of 5 months all the patients demonstrate normal menstrual function with no evidence of disease.

Conclusions

In spite of short period of follow up laparoscopic radical trachelectomy with vaginal assistance is expected to provide with acceptable radicality, especially in cases of IB2 stage cervical cancer after neoadjuvant chemotherapy. Laparoscopic technique provides adequate parametrial resection, vaginal assistance makes it easier to identify the correct level of cervix resection and to perform uterovaginal anastomosis. We expected that combination of minimally invasive and vaginal surgery with their advantages will show acceptable oncologic and fertility outcomes.

ES24-0324
Free Communication 9 Urogynaecology + Oncology

Hysteroscopic Resection of Atypical Endometrial Polyps and the Risk of Concurrent Endometrial Cancer: a Systematic Review

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Background

Endometrial polyps are a common cause of abnormal uterine bleeding. Rarely, histological examination shows atypical endometrial hyperplasia (AEH) in an endometrial polyp after hysteroscopic resection. Some authors have suggested that thorough follow-up after this diagnosis suffices, whereas others advocate a subsequent hysterectomy due to a high probability of simultaneous endometrial cancer. The aim of this study therefore was to determine the risk of concurrent endometrial cancer in non-polypoid endometrium when atypical hyperplasia was diagnosed within an endometrial polyp.

Methods

A systematic literature search was performed and studies were included in which 1) women with atypical hyperplastic endometrial polyps underwent a consecutive hysterectomy or 2) the natural behavior of endometrium with concurrent atypical hyperplastic polyps was evaluated.

Results

Electronic database search within Medline, Embase and Web of Science identified 2898 authentic citations, while 2 additional records were identified through scanning of reference lists. A total of 309 articles were selected for full evaluation, after which 8 retrospective studies and 2 follow-up studies were included. In total, 127 patients were included with an initial diagnosis of AEH within polyps. Endometrial cancer was diagnosed in a total of 16 out of 127 patients, giving a combined risk of 12.6% on concurrent endometrial cancer after resection of an atypical endometrial polyp.

Conclusions

To the best of our knowledge, this is the first systematic review concerning the risk of concurrent endometrial cancer when AEH is confined to a polyp. Although this study does have limitations, of which most were caused by the diversity of selected studies, the 12.6% risk of endometrial cancer when AEH is diagnosed within a polyp, does differ from the well-studied cumulative progression risk of AEH in non-polypoid endometrium to endometrial cancer of up to 29%. The above findings reinforce the need for hysterectomy, especially in postmenopausal women with atypical hyperplasia in endometrial polyps, even if these changes appear confined to the polyp in initial sampling.

ES24-0050
Free Communication 10 Laparoscopic Surgery

Comparing a Novel Caudal Displacement Umbilical Entry Technique to Left Upper Quadrant (Luq) During Closed Laparoscopic Entry: a Randomized Control Trial

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Background

Laparoscopy (Gr: Laparo - abdomen, scopein - to examine) is 'the art of examining the abdomen'. Greater than 50% of major injuries to bowel and major vessels occur during the initial entry and this rate has remained constant for 25 years. In Canada, 70% of closed Canadian Medical Protective Association cases are from major vessel injuries during initial laparoscopic entry. Veress needle injury to bowel and vasculature occur at an incidence of 1/10 000 and 1/20 000 cases respectively.

The objectives of this study were to determine the maximal caudal displacement of our novel "pull-down" umbilical entry technique and if this technique is superior to the fail-safe Palmer’s point (LUQ) for Veress needle placement during routine laparoscopy.

Methods

This was a prospective, randomized, patient-blinded REB approved study. Between 2013-2014, 283 women were randomized to umbilical (146) versus LUQ (137) placement of the Veress needle. Primary outcomes included the number of entry attempts, the need to change sites, and the occurrence of minor complications. Inclusion criteria was desire for laparoscopy. Exclusion criteria was prior midline laparotomy, known or suspected abdominal wall adhesions or patient choice. Up to 3 consecutive attempts were used at the initial site before conversion to the alternate site was deployed. In 116 patients randomized to umbilical entry, the total displacement distance using our novel "pull-down" method was measured. All procedures were performed by the senior author (GAV).

Results

Baseline characteristics between the two groups were comparable except for weight (LUQ 76.9+/-16.9 kg, umb 72.4+/-16.5 kg, p=0.024) and BMI (LUQ 28.7+/-6.8, umb 27.1+/-6.1 kg/m2, p=0.037). Successful access for 1st, 2nd, and 3rd attempts was LUQ (90.5%, 8.0%, 0.75%) and umbilical (82.8%, 7.6%, 2.8%) respectively (Cochran-Armitage Trend test 0.003). The number of 4th attempt site conversions was LUQ 1(0.75%) and umbilical 10(6.9%) (x2 = 0.025) with access gained in all patients. There was one minor vessel injury in each group (0.7%). Pre-peritoneal insufflation occurred in LUQ 4(2.9%) and umbilical 5(3.4%) with no statistical difference. The presence of any intra-abdominal adhesions was comparable in each group.
In 116 patients who's maximal caudal displacement was measured, the mean umbilical displacement was 6.1 (+/-1.3) cm (range 2-9 cm). The displacement correlated positively with patient BMI, r=0.29 (p=0.001), and negatively with patient height, r= -0.3 (p=0.001).

Conclusions

Caudal displacement of the umbilicus (mean 6 cm, range 2-9) below the sacrum and great vessels, potentially minimizes entry injuries without sacrificing accepted entry success rates at the umbilicus. However, primary access at the LUQ results in fewer needle attempts and a lower conversion rate to alternative sites.

ES24-0127
Free Communication 10 Laparoscopic Surgery

Complication Rate of Uterine Morcellation in Laparoscopic Supracervical Hysterectomy (Lash) - A Retrospective Case Control Study

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Background

Over the last decades minimally invasive surgical techniques are increasingly used to treat symptomatic leiomyomas, providing the patient decreased morbidity and more rapid return to daily activities. Morcellation is the fragmentation of a large mass into smaller pieces to make resection through port incisions possible. Over the last year there has been a discussion worldwide about the safety of morcellation. The aim of our study was to identify the complication rate of power morcellation at our institution.

Methods

We performed a retrospective chart analysis of patients undergoing laparascopic supracervical hysterectomy (LASH) with morcellation. We compared the outcomes of patients undergoing LASH with a control group of women who underwent laparoscopic assisted vaginal hysterectomy (LAVH) without morcellation. Women who underwent LAVH because of suspected malignancy were excluded.

Results

A total of 358 patients underwent laparoscopic hysterectomy between 2004 and 2013; 186 LASH and 172 LAVH. The main indication for LASH was heavy menstrual bleeding and pelvic discomfort. Other indications for LAVH were postmenopausal bleeding (7.0%) or anxiety of cervical dysplasia (3.5%). Baseline characteristics were not significantly different except for body mass index (BMI), with a median of 24.4 in LASH and 26.2 in LAVH. There was significantly more peroperative blood loss in the LAVH group (mean 162 cc vs. 140 cc) and a higher uterine weight in the LASH group (mean 260 gram vs. 202 gram). The overall conversion rate was 5.3% (n = 19), with no significant difference between the two groups, 79% of conversions being performed for strategic reasons. There was no statistical difference in intra-operative complication rate (2.2% LASH vs. 2.3% LAVH). Reported intra-operative complications in LASH patients were vascular (1.1%) and intestinal injuries (1.0%). Pathology reports showed no unexpected malignancies. There was no statistical difference in the complication rate post-operatively (3.8% LASH vs. 2.9% LAVH). Post-operative complications in LASH patients existed of fever (0.5%), wound infections (0.5%), vaginal hematomas (1.6%), and one small platzbauch with also a bladder perforation (0.5%). Need for reoperation after LASH was necessary in 10 patients (5.4%), with cervical amputation being the most common type of reoperation (n = 7). In the LAVH group there were significantly more adhesiolysis performed (n = 4). Parasitic myomas were discovered in 1 patient two years after LASH (0.5%).

Conclusions

In our study, there were no injuries directly related to morcellation. There were no unexpected malignancies morcellated, and only one case of parasitic myomas. The overall complication rate of LASH was 5.9%. There were significant more reoperations for cervical amputation after LASH. However, complications of morcellation should not be underestimated, especially with an estimated incidence of unexpected malignancy of 1:350 to 1:1788 patients. Further research should be focused on optimizing retraction techniques.

ES24-0044
Free Communication 10 Laparoscopic Surgery

Three-dimensional Versus Two-dimensional Radical Laparoscopic Hysterectomy for Endometrial and Cervical Cancer: a Prospective Randomized Trial.

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Background

To compare operative time between bi-dimensional/standard laparoscopy (2D) versus three-dimensional laparoscopy (3D) during radical hysterectomy and pelvic lymphadenectomy to treat gynecologic tumors.

Methods

Randomized, controlled trial. We enrolled from September 2014 to February 2015, 84 patients of which 24 patients with early cervical cancer (FIGO stages IA2, IB1, IIA ,< 2 cm) or locally advanced cervical cancer (FIGO stages IB2, IIA >2cm, IIB), and 60 patients with early stage endometrial cancer (FIGO stages IB, II). The patients were randomly assigned to standard 2D laparoscopy (Group A) or 3D laparoscopy (Group B).

Results

Eighty-four patients were available for analysis, 42 women randomly assigned to Group A and 42 to Group B. In both these groups, 12 (28,6 %) of them had a diagnosis of cervical cancer, while 30 (71.4 %) of them presented an endometrial cancer disease. In Group A the median age was 58 years (38 – 75) and median BMI was 28 kg/m2 (18 - 42). In Group B the median age was 58 years (31 – 75) and median BMI was 27 kg/m2 (19 – 41). The median operative time was 84 minutes (25-176) for 2D vs 96 minutes for 3D (p=.678). The execution times for the entire procedure and the single tasks were not significantly different between the 2D and 3D groups during radical hysterectomy with or without bilateral pelvic lymphadenectomy. No statistical differences were found in terms of perioperative outcomes and postoperative complications between the 2 arms.

Conclusions

Further comparative studies are necessary to address the issue if apprentice surgeons could benefit with 3D vision from reduced learning curve and to verify if 3D imaging can reduce intraoperative and postoperative complications.

ES24-0124
Free Communication 10 Laparoscopic Surgery

Postlaparoscopic Reduction of Pain by Combining Intraperitoneal Normal Saline and the Pulmonary Recruitment Maneuver

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Background

Shoulder pain and pain in the upper abdomen are common complaints after laparoscopy, sometimes being even worse than the pain at incision sites. The incidence of shoulder pain ranges from 35 to 80%. Laparoscopy–induced pain is thought to be caused by retention of carbon dioxide in the abdomen, which irritates the phrenic nerve and diaphragm, causing referred pain in the shoulder and in the upper abdomen. A promising strategy to reduce this postlaparoscopic pain is the pulmonary recruitment maneuver. By using pulmonary inflations, the intraperitoneal pressure increases and removal of residual carbon dioxide will be facilitated. Another method is the use of intraperitoneal normal saline infusion. With normal saline infusion, carbon dioxide gas will rise and escapes through the port sites. Besides, normal saline is thought to offer a physiologic buffer system to dissolve excess carbon dioxide.

Methods

A multicenter randomized controlled trial, in 2 teaching hospitals in the Netherlands. Women between 18 and 65 years, ASA classification I-II, planned for an elective laparoscopic procedure with benign gynecologic indication can participate. After informed consent, women will be randomized. In the intervention group the upper abdomen will be filled with normal saline infusion and left in the abdominal cavity. The anesthesiologist will perform 5 pulmonary insufflations and hold the last one for 5 seconds, with a pressure of maximum 40 cm H_2O and the patient in Trendelenburg position. The trocar sleeve valves will be left open, so carbon dioxide can escape the abdominal cavity. In neutral position the instruments are removed from the abdomen. In the control group, carbon dioxide is removed from the abdominal cavity at the end of the surgery, with gentle abdominal pressure and passive exsufflation through the port sites, with open sleeve valves.

Results

The primary outcomes are the incidence and intensity of postlaparoscopic pain in the shoulder, upper abdomen and at the operation sites, at 8, 24 and 48 hours after surgery. Secondary outcomes are postoperative use of pain medication, nausea, vomiting and pulmonary problems. These results are yet to come.

Conclusions

We expect this study to improve post operative outcomes for women undergoing laparoscopy.

ES24-0118
Free Communication 10 Laparoscopic Surgery

Subtotal Hysterectomy Versus Total Hysterectomy by Laparoscopy for Benign Uterine Disorder : Short Term Consequences On Women Sexuality and Satisfaction

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Background

The aim of our study was to compare short term satisfaction rate, sexuality and urinary symptoms after subtotal laparoscopic hysterectomy (SLH) versus total laparoscopic hysterectomy (TLH).

Methods

This is a retrospective monocenter comparative study. 40 consecutive patients who underwent SLH or TLH for a benign uterine disorder within a two-year period were included. They were invited to answer postal validated questionnaires in order to assess global satisfaction and sexual outcomes, 4 months to one year after the operation. Sexual outcomes, global satisfaction rate and urinary symptoms were assessed using PISQ-12, PGI-I and ICIQ-SF scores respectively. Patient pre- and intra-operative data were collected retrospectively in patient's files.

Results

Both groups were comparable for age, BMI, parity, menopausal status, and previous surgery. There was no significative difference in the satisfaction rate and PISQ-12 scores between the two groups (9,3 vs 8,9 ; p=0,37 and 39,1 vs 37,5 ; p=0,46, respectively). Three women suffered from de novo dyspareunia in the TLH group versus one in the SLH group (5,9 % vs 14,3% ; p=0,40). Hospital stay was significantly shorter in the SLH group (2,31 vs 2,94 ; p=0,004). Three severe postoperative events occurred in the TLH group versus one in the SLH group (5,6% vs 13,6 % p=0,40). Urinary incontinence was not different between the two groups (5,6% vs 9,1 % p=0,69). Two patients from each group declared a disappearance of their urinary symptoms post operatively. To the question "would you do the same intervention again?" only one patient from the TLH group answered « NO ».

Conclusions

Overall satisfaction rate was high in both groups. However, de novo dyspareunia, hospital stay and complication rate were higher in TLH. A randomized prospective trial would be necessary to confirm our results.

ES24-0126
Free Communication 10 Laparoscopic Surgery

"A Bed But No Breakfast" – A Move From Traditional Theatre to Day Surgery - Laparoscopic Oophorectomy and Salpingectomy (Including Bilateral)

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Background

The NHS "Improving Quality" group has identified "Better Care Better Value" indicators which are areas where there is potential to improve efficiency, one of these areas is increasing day surgery rates. The majority of elective laparoscopic oophorectomy and salpingectomy(including bilateral) is as an in-patient procedure, but could be offered as day surgery. The national day surgery rate for these procedures are 34.43%, with our local rate (Lincolnshire and Leicestershire) being lower at 22.58%. In this review we will be evaluating our units' rate of performing oophorectomy and salpingectomy as day surgery and whether this practice is successful and safe.

Methods

The review was conducted at an isolated day surgery unit for gynaecology, which has support of blood transfusion service, 24 hour anaesthetic support including ITU, but no in-patient gynaecology facilities. We performed a retrospective review on cases which had been listed for elective laparoscopic salpingectomy and/or oophorectomy between May 2013 and May 2015. All of these operations were carried out by a single Consultant. Patient selection criteria for day surgery includes BMI <40; no previous complicated abdominal surgery; suitable for day surgery anaesthesia and with low risk of pelvic adhesions. We collected data on whether the cases had been listed for in-patient or day surgery and re-admissions or complications.

Results

We identified 38 cases of laparoscopic salpingectomy and/or oophorectomy. 89.5% (n=34) were performed in the day surgery unit. Of these cases few encountered any problems. There was one transferred to the main gynaecology unit for low blood pressure following anaesthetic, two procedures had to be abandoned due to dense pelvic adhesions which were later re-listed for open procedures and one readmission due to port site hernia which was later repaired by the surgeons.

Conclusions

From our results we believe that day surgery for elective salpingectomy and/or oophorectomy with correct patient selection is a safe and efficacious method of improving services. Our rate of day surgery for salpingectomy/oophorectomy is much higher than the national and local rates and we have shown a low complication rate and need for further operations. Increasing day surgery rate benefits include reducing treatment costs, reducing rate of hospital acquired infection and increasing capacity to treat patients. We should see day surgery as the norm and justify overnight admission, rather than asking if the patient is suitable for day surgery.

ES24-0074
Free Communication 10 Laparoscopic Surgery

Management of Vaginal Cuff Dehiscence After Total Laparoscopic Hysterectomy (Tlh)
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Background

Vaginal cuff dehiscence appears in 1.1- 4.9% after TLH. Many patients are asymptomatic and receive a diagnosis at a routine postoperative appointment.

Methods

We had 3 cases (1,29%) of vaginal cuff dehiscence after 232 TLH. All 3 patients diagnosed on 4th week after TLH. 2 out of 3 patients were asymptomatic and received diagnosis at the routine postoperative examination; 1 patient had cuff dehiscence and bowel evisceration. All 3 patients were treated vaginally.

Results

All 3 patients were treated vaginally: 2 patients had vaginal cuff closure in ambulatory sterile conditions (no anesthesia used); 1 patient (with bowel evisceration) treated in operating room under i.v. anesthesia. 2 patients discharged from hospital in less than 1hr, 1 patient after i.v. anesthesia - in 4hrs. No farther complications observed in all 3 patients.

Conclusions

When cuff dehiscence diagnosed after THL, vaginal route of cuff closure is a safe method. In case of absence of cuff infection or bowel evisceration, it is safe to close cuff vaginally in ambulatory conditions without anesthesia. It is related to no anesthesia risks, fast rehabilitation, and is cost effective.

ES24-0262
Free Communication 10 Laparoscopic Surgery

A National Clinical Guideline for Laparoscopic Hysterectomy

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Background

To strive for optimal patient care and hence patient safety, it is nowadays mandatory to assess quality. This is especially the case for surgical procedures with high technological features such as laparoscopic hysterectomy. To assure quality and limit practice variations, best-practice recommendations at a (inter)national level should be formulated. The aim of this study is to develop an evidenced-based guideline for laparoscopic hysterectomy to unify the care in the Netherlands and to warrant national quality.

Methods

This clinical practice guideline was developed according to the GRADE method. For the expert panel, fourteen gynaecologists representing different types of clinics throughout the Netherlands were carefully chosen.

Results

To start a brainstorm session with forty gynaecologists, all members of the Dutch Gynaecologic Endoscopy Society (WGE) was conducted to define the clinically important issues. Eleven aspects were found relevant and were translated into research questions. Included topics were the optimal pre-operative indications for laparoscopic hysterectomy, the best surgical approach, the relevance of pre-operative treatment, the evidence of certain surgical instruments and diagnostic tools to detect injuries and the post-operative care.
A literature search per topic was then conducted and in total more than 3500 articles were selected. After a first selection by two independent readers, the relevant articles were summarized and their quality of evidence was rated according to the GRADE systematic. The expert panel was consulted and based on their considerations together with the available evidence, best-practice recommendations were formulated.
This has resulted in the development of a national guideline about laparoscopic hysterectomy, which is currently being implemented in the Netherlands.

Conclusions

To our knowledge, this is the first national guideline about LH. These evidenced- and expert-based recommendations serve to unify the care and to warrant the quality of LH in the Netherlands.

ES24-0248
Free Communication 10 Laparoscopic Surgery

Simplified Laparoscopic Transabdominal Cerclage for Prevention of Recurrent Pregnancy Loss Due to Cervical Incompetence

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Background

To introduce a simple method of laparoscopic transabdominal cervicoisthmic cerclage simplified by us to treat cervical incompetence which is the main cause of recurrent pregnancy loss and premature birth, and is the major contributors to perinatal morbidity and mortality.

Methods

Since 2007 we started to perform LTCC for those women who suffered from have had a poor obstetric history and failed a transvaginal McDonald suture in the previous pregnancy with cervical incompetence. Till May 2015 330 LTCC were performed in my Center. With skilled technology and the accumulation of experience the LTCC has modified to simple technique for now.

Results

At the first stage make hole method is used. The key points are: 1) Open the bladder peritoneum reflex. The bladder was dissected downward as necessary. 2) Make a tunnel between the uterine vessels & lateral cervix at the level of the internal OS. Tape without needle was placed through the tunnels & tied tightly. The second stage is direct puncture method. The key points are: 1)Do not dissected off the bladder. 2) Do not separate the uterine vessels. Using the Mersilene tape with needle. 3) Straight needle punctured directly at the level of uterine isthmus near the cervix tightly from anterior to posterior. The third stage is simplified method. Using cap uterine elevator which fit earlier pregnant/non-pregnant women and a sign of puncture point is clear. From 2010 to 2014 a consecutive series of 80 SLTCC for cervical incompetence were studied. The perinatal survival rate was 95.2% (40/42) with a mean gestational age at delivery of 36.7 weeks, and it was 14.2 weeks longer than their previous pregnancy age.

Conclusions

The simplified surgical method of laparoscopic transabdominal cervical cerclage (SLTCC) is a safe and effective procedure to prevent recurrent pregnancy loss due to cervical incompetence. It has favorable obstetric outcomes for those women who have had a poor obstetric history and failed a transvaginal McDonald suture in the previous pregnancy with cervical incompetence.

ES24-0196
Free Communication 10 Laparoscopic Surgery

Comparison of Laparoscopy and Laparotomy in Treatment of Adnexal Masses in Pregnant Women

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Background

A retrospective and prospective analysis of 265 pregnant women underwent laparotomy (Lt) or laparoscopy (Ls) surgery for adnexal masses during pregnancy or ceasarean section (CS) was performed

Methods

123 women were operated during pregnancy: 41 - Lt, 82 – Ls; 142 underwent observation with adnexal surgery during CS.

Results

123 women were operated during pregnancy: 41 - Lt, 82 – Ls; 142 underwent observation with adnexal surgery during CS. Malignant tumors were presented with 2 disgerminomas, 1 serous papillary cystadenocarcinoma, 1 endometrioid and 1 metastatic adenocarcinoma. Mean mass size was significantly larger in the Lt group than in the Ls group (13,7±0,7 sm vs 10,0±0,6 sm, p < 0,05) and 5,3±0,3sm in CS group. There were no significant differences between groups for mean gestational age, birth weight, Apgar score, low birth weight. Preterm labour was the single outcome that was significantly different between Ls and Lt groups (6,1% in Ls group vs 17,1% in Lt group, p<0,05). Lt surgery had a significantly higher risk of preterm labour than Ls (OR 7,8; 95% CI 1,98-30,78; p=0,003). Gestational age at surgery over 24 weeks also had a higher risk of preterm labour (OR 4,17; 95% CI 0,94-18,52; p=0,061). However, surgery performed in 3rd trimester had a significantly higher risk of preterm labour than in 2nd trimester (OR 10,6; 95% CI 1,35-83,54; p=0,025). Emergency surgery, mass size and gestational anemia had no influence on preterm labour rates. Women with adnexal mass and fetoplacental insufficiency had a significantly higher risk of preterm labour compared with those with adnexal mass alone (OR 17,5; 95% CI 3,33-92,09; p=0,001).

Conclusions

Ls has obvious benefits in pregnancy because of decreased postoperative pain, less narcotic use, shorter hospital stays and faster postoperative return to regular activity. We recommend observation after 24 weeks of gestation even for large size ovarian masses (over 6 sm) if they are asymptomatic and not suspicious for malignancy

ES24-0182
Free Communication 10 Laparoscopic Surgery

A Retrospective Benchmark Audit to Evaluate Length of Stay by Route of Hysterectomy
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Background

Improving productivity and reducing costs are key priorities for the National Health Service (NHS), United Kingdom (UK). Enhanced Recovery (ER) is integral to this and helps to reduce Length of Stay (LoS) by optimising the care pathway and promoting faster recovery. The Royal College of Obstetricians and Gynaecologists UK recommend laparoscopic hysterectomy (LH) over abdominal hysterectomy (AH) as part of ER. Previously, arguments against LH have focussed on increased surgical costs, increased risk of urinary tract injury and longer operating times. There is increasing evidence that LH is safe and can achieve equivalent operating times to AH. It has already been shown to have shorter hospital stays with faster recovery. Our aim was to retrospectively compare all types of hysterectomy for benign disease performed in Queen Alexandra Hospital (QAH), Portsmouth, UK over 12 months and appraise potential benefits of offering LH over AH in suitable patients.

Methods

Retrospective analysis of all hysterectomies performed between 01/11/2013 – 31/10/2014. Exclusion criteria: malignancy, large fibroid uterus (≥12/40 size), large ovarian mass requiring abdominal approach, emergency procedures.

Results

553 hysterectomies were identified with 292 excluded, and 40 case-notes inaccessible. Included were: AH 77/259(29.7%), LH 65/259(25.1%), VH 112/259(43.2%) and laparoscopic-assisted-vaginal-hysterectomy (LAVH) 5/259(1.9%). Patients undergoing VH tended to be older than for other routes, but BMI was similar between all groups.

LH and AH were found to have similar average operating and total theatre times of 105 minutes and 148 minutes respectively for LH versus 104 minutes and 151 minutes for AH. Vaginal hysterectomy was quicker, averaging 68 minutes operating time and 101 minutes total theatre time. The average LoS (days) was 1.6 LH, 2.86 AH, 1.8 VH and 1 LAVH. 38/65 (58.5%) of LH patients were discharged on day 1 compared with 62/112 (55.4%) for VH and only 6/77 (7.8%) of AH patients. By day two, 56/65 (86.2%) LH patients were discharged compared with 95/112 (84.8%) VH but only 38/77 (49.4%) AH.

Conclusions

LH has a shorter hospital stay than AH with at least equivalent operating times in our service. If all suitable patients undergoing AH had received LH, there would have been a reduction of approximately 97 bed days over 12 months. This equates to £26481 of excess bed days plus additional benefits of improved productivity, reduced exposure to hospital acquired infections, improved through-put and the subsequent benefits to A&E wait times, reduced cancelled elective procedures and improved waiting times for treatment - areas in which it is difficult to quantify the financial benefit.

With increasing evidence for the safety of LH compared to AH, and well-established evidence for improved post-operative recovery with minimal access surgery, we believe that LH should be offered as first choice for all patients unsuitable for VH.

ES24-0364
Free Communication 11 Hysteroscopic Surgery + Complications

The Role of Hysteroscopy in Diagnosis of Postmenopausal Bleeding

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Background

Abnormal uterine bleeding is the most common problem which brings woman to the gynecologist during the postmenopausal period. It accounts for about 5 percent of office gynecology visits. Endometrial carcinoma should be the first differential diagnosis to consider. Approximately 5 to 10 percent these women have endometrial cancer. Diagnostic evaluation of postmenopausal bleeding includes endometrial biopsy with Cournier, transvaginal ultrasound and hysteroscopy. The aim of this study was to define the significance of hysteroscopy as a diagnostic procedure for the evaluation of patients with postmenopausal bleeding.

Methods

The study involved 301 female patients referred to the Hysteroscopic Unit of Vall d´Hebron Hospital for postmenopausal bleeding between 2012 and 2014. Hysteroscopy with endometrial biopsy was performed in all patients. The histological findings were compared with ultrasound findings, endometrial biopsy with Cournier and hysteroscopic images.

Results

The mean age of our patients was 63 years. The most common ultrasound finding was increased endometrial thickness 115 (44.57%). In 14.28% cases ultrasound evaluation was not performed. Endometrial biopsy with Cournier was performed in 73 (24.25%) cases with following results: normal 68 (90.67%), adenocarcinoma 2 (2.67%). The most frequent hysteroscopic diagnosis was normal uterine cavity 143 (47.67%), followed by polyp in 126 cases (42%). Images suggesting adenocarcinoma were identificated in 17 patients (5.67%). Histological samples obtained during hysteroscopy gave the following results: normal in 153 cases (51.17%), polyp in 120 (40.13%), adenocarcinoma was detected in 20 (6.69%). There was not consistency between ultrasound diagnostic and histological findings, Kappa index 0.173 [IC 95% 0.122; 0.224]. Comparing endometrial biopsy and histological diagnosis obtained by hysteroscopy there was not consistency neither, Kappa index 0.188 [IC 95% 0.068; 0.308]. Combining ultrasound with endometrial biopsy the consistency was also bad, Kappa index 0.108 [IC 95% 0.060; 0.157]. Only comparing hysteroscopic diagnosis with histological findings good consistency was observed, Kappa index 0.741 [IC 95% 0.652; 0.831].

Conclusions

Hysteroscopy seems to be the best method for evaluation of patients with postmenopausal bleeding. It is important to define criteria to select patients to perform hysteroscopy in order to avoid unnecessary procedures. The patients need undergo initial evaluation consisting in endometrial biopsy with Cournier and ultrasound examination, followed by hysteroscopic evaluation of uterine cavity and endometrial sampling during the procedure. According to our results we cannot avoid hysteroscopy in postmenopausal bleeding. Perhaps further studies are needed to define low risk patients and cases in which hysteroscopy can be avoided.

ES24-0410
Free Communication 11 Hysteroscopic Surgery + Complications

Patient Feedback On Outpatient Hysteroscopy in a Busy Uk District General Hospital - The Importance of Improving Patient Care in Ambulatory Gynaecology

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Background

The RCOG guideline ‘Best Practice in Outpatient Hysteroscopy’ states that ‘all gynaecology units should provide a dedicated outpatient hysteroscopy service to aid management of women with abnormal uterine bleeding’. Recommendations include the use of appropriate facilities outside a formal operating theatre setting, written patient information, consent taking prior to the procedure and ways to decrease pain scores including the use of miniature hysteroscopes, vaginoscopy and encouraging NSAIDs one hour prior to the procedure. Our aim is to assess patient satisfaction at Frimley Health NHS Foundation Trust, Surrey, UK and whether further improvements are required to the service provided in our unit.

Methods

100 patient satisfaction questionnaires were completed between June 2014 and November 2014.

Results

100% of patients believed the clinic was easily accessible, staff professional and privacy and dignity maintained. All patients surveyed believed they were given suitable information prior to the procedure with adequate aftercare. 87% received information leaflets prior to the procedure. 84% of patients were waiting for their procedure for less than 30 minutes with 93% finding self check in kiosks beneficial. 76% had only mild to moderate discomfort. 93% would have outpatient hysteroscopy again, 89% recommending the procedure.

Conclusions

With excellent patient satisfaction, outpatient hysteroscopy should be encouraged in suitable candidates. Further improvements to clinic set up and facilities should be ensured and audited across all units. Information evenings could be arranged for General Practitioners and better dissemination of patient information leaflets prior to outpatient procedures should be encouraged to further improve patient care and satisfaction.

ES24-0464
Free Communication 11 Hysteroscopic Surgery + Complications

Influence of Submucous Uterine Fibroid Size On Surgical Resection Time

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Background

Evaluate principal variables in patients with n hysteroscopic myomectomy and determine which of them have an influence value in surgical resection time.

Methods

Retrospective study during January 2013 to May 2015 in 153 patients with hysteroscopic myomectomy in a tertiary-level hospital.

Results

Age mean was 44.74 years (range 23-77). BMI mean was 26.60 (range 18.59-44.58). Miscarriage pregnancy and vaginal delivery were 0.53 (sd 1.074) and 1.19 (sd 1.213) respectively.
Surgery indications were uterine bleeding in 77.8%, sterility in 11.1% and pelvic chronic pain in 0.7%.The patients of our study have 2.16 (sd 1.502) number of leiomyomas with 1.11 submucous fibroids: 39.9% of them were 0 type, 41.8% were I type and 9.8% were II type of FIGO classification.
The mean of higher diameter of submucous fibroid was 26.41 mm (sd 11.045) estimated by hysteroscopic surgery.It was necessary 1.10 (sd 18.863) hysteroscopic procedures to get complete clinic remission with 94.82% (sd 0.38) of volume resected at first intervention. Surgical time was 35.39 min (sd 18.863) and glycine balance was 230.61 cc (sd 216.17). Complications were uterine bleeding in six patients.

We created a linear regression model with these variables: parity, number of submucous uterine fibroids and submucous leiomyoma diameter measured by hysteroscopic procedure (mm). Only this last variable has influence value about surgical time ($R2:0.289$, $p<0.001$) with a regression line $y=11.055+0.937x$.

Conclusions

Every millimeter of submucous leiomyoma increases surgical resection time in one minute, so we can conclude that a 60 mm uterine fibroid would be the limit size to resect in a 60 minutes surgical intervention.

ES24-0442
Free Communication 11 Hysteroscopic Surgery + Complications

"See and Treat Hysteroscopy" in the Management of Endometrial Target Lesions: Recommendations and Limits.

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Background

In the last few years, the development and refinement of instruments and equipment led to the progressive use of "see and treat hysteroscopy" (HY), as a reliable alternative to the operative hysteroscopy (OHy) performed in the operating room. The aim of this prospective study was the evaluation of the effectiveness and feasibility of HY for the treatment of endometrial polyps (EPs).

Methods

All the patients (pt) admitted to our Institution were submitted to HY, if a suspicion of EP at the ultrasound assessment was reported. Variables related to the surgical procedure and the patients' compliance were registered.

Results

Overall 219 pt were enrolled. 93.2% of EPs was radically removed by HY without any surgical complications (bleeding or uterine perforation). The mean duration of HY was 15 minutes. 13.3% of the pt had to be submitted to more than one procedure because of EPs dimensions (23,28 mm ± 15.7 DS versus 13.6 mm ± 8.8 DS, p=0.0001) or numbers (1.59 ± 1.0 DS versus 1.22 ± 0.4 DS; p=0.003). OHy was performed in the 6.8% of the pt initially submitted to HY; major reasons were patient's choice (40%, 6/15 pt) or intraoperative vasovagal reaction (26.7%, 4/15 pt). No differences between HY and OHy were reported in EPs mean diameter (14.9 mm ± DS 10.6 vs 18 mm ± DS 9.6, p 0.5) or numbers (1.25 ± DS 0.6 vs 1.07 ± 0.3, p 0.6). 61.2% of the patients complained feeble or mild pain according to NRS pain score, at the end of the HY; overall mean NRS was 5.5 ± DS 2. Feeble pain was reported by women with a previous vaginal delivery (32.5% versus 16.7% of nulliparae, p 0.01) and by women taking progestins as a concomitant therapy (77.8% versus 38.7% without therapy, p 0.01).

Conclusions

HY is an effective and feasible outpatient surgical procedure for the treatment of EPs, regardless their number or dimension. A widespread availability of HY could reduce patient's hospital admission and OHy's indications, thus lowering anesthesiological morbidity. Progestins therapy may improve intraoperative pain, because of their uterine cervical muscle relaxant and anti-inflammatory properties.

ES24-0495
Free Communication 11 Hysteroscopic Surgery + Complications

Pregnancy After Endometrial Ablation - Are We Giving the Right Contraceptive Advice? Case Reports and Literature Review - Shirol V: Hogan R: Sankaran S:Prietzal Meyer N

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Background

Endometrial ablation has been performed over the last two decades as an alternative to hysterectomy in women with dysfunctional-uterine bleeding unresponsive to medical treatment. Pregnancy after endometrial ablation is rare and associated with serious risks and complications.Women should be strongly advised to avoid pregnancy and counselling about contraceptive options at the time of endometrial ablation is paramount.

Methods

Our two case reports of pregnancies after endometrial ablation illustrate these risks and highlights the importance of adequate contraceptive advice.

Results

Case report 1: A case of a 37 year old lady who was pregnant 6 months after thermachoice endometrial ablation which was performed in South Africa in 2014 .Her obstetric history included two previous caesarean sections.She booked for antenatal care at 12 weeks and was keen to continue with the pregnancy. She had recurrent small bleeds between 16 to 24 weeks of pregnancy and was administered steroids at 26 weeks. Ultrasound scan at 30 weeks gestation showed features of a possible placenta accreta and she presented a week later with a major antepartum haemorrhage.Caesarean hysterectomy was performed and placenta percreta with invasion of placenta into the cervix and upper third of vagina was noted. A male baby weighing 1.9 kg was delivered who unfortunately could not be revived due to severe RDS (respiratory distress syndrome)which was confirmed on postmortem examination. She had an overall blood loss of 5 litres and made an uneventful postoperative recovery.
Case report 2: A case of a 40 year old lady with an unplanned pregnancy at 16 weeks gestation. She had previously undergone Novasure endometrial ablation in 2006 and her obstetric history included two normal deliveries A dating scan confirmed a 16 week viable pregnancy and anhydramnios.She was counselled regarding poor fetal prognosis and opted for medical termination of pregnancy. Following fetal expulsion,placenta was retained and evacuation of retained placenta was performed under ultrasound guidance. Retained products of conception were confirmed on transvaginal ultrasound at 4 weeks post termination and she underwent a second surgical evacuation under ultrasound and hysteroscopic guidance. Hysteroscopy suggested possible invasion into the myometrium and histology was inconclusive in showing evidence of placenta accreta due to a largely infarcted tissue sample. A follow up transvaginal ultrasound showed features suggestive of a morbidly adherent placenta extending into the serosa .As the patient has been clinically well,a conservative approach has been adopted and is ongoing.

Conclusions

Pregnancy rates after endometrial ablation are quoted as low as 0.7%. Deficient endometrium following endometrial ablation,intrauterine adhesions and distortion of the endometrial cavity are associated with problems with morbidly adherent placenta and poor fetal outcomes.Women should be strongly advised to avoid pregnancy following endometrial ablation and emphasis should be made on long term or permanent contraception at the time of counselling.

ES24-0425
Free Communication 11 Hysteroscopic Surgery + Complications

Long-term Complications and Reproductive Outcome Following Medical and Surgical Management of Retained Products of Conception (Rpoc), a Systematic Review.

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Background

Retained products of conception (RPOC) are estimate to complicate approximately 1% of term pregnancies and probably more often after miscarriage or termination of pregnancies (TOP). Diagnosing RPOC remains a major clinical challenge. The management of women suspected of RPOC is challenging because neither clear defined diagnostic criteria nor evidence based guidelines or treatment protocol exist, while an accurate diagnosis is obligatory.

Methods

A systematic review was conducted on MEDLINE, EMBASE and the Cochrane library from inception to April 2015 to determine the prevalence of intrauterine adhesions (IUAs) and reproductive outcome after medical or surgical management in women suspected of RPOC, independent of pregnancy term.

Results

No studies reporting on IUAs or reproductive indicators following medical management were encountered. Overall, we included ten cohort studies of poor-average methodological quality. Five cohort studies (n=339) reported IUAs in 22.4 % (95% confidence interval 18.3-27.%) of women hysteroscopic revised; in 30% after dilatation and curettage (D&C) compared to 13% following hysteroscopic resection (HR), P< 0.001. Incomplete evacuation was encountered in respectively 29% versus 1%, p< 0.001. Similar conception, ongoing pregnancy-, live birth-, and miscarriage rates were reported after D&C and HR in six cohort studies (n=380), with a tendency to earlier conception after HR. The reproductive outcomes were not reported in relation to IUAs.

Conclusions

HR seems to be the preferred surgical treatment in women suspected of RPOC; less IUAs and incomplete evacuations are encountered while similar reproductive outcomes were reported compared to D&C. Confirmation of the observed effects is required, while trials evaluating medical management are urgently needed.

ES24-0509
Free Communication 11 Hysteroscopic Surgery + Complications

A Pathway for the Management of Patients Presenting with PMB, Once Endometrial Cancer is Excluded.

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Background

Management pathways for investigating women presenting with postmenopausal bleeding (PMB) are clear, but not for subsequent management of the initial bleeding symptoms once endometrial and other cancers are excluded.

Some 10 − 20% with PMB have endometrial polyps and these are suggested by thickened endometrium on scan. However, it is not clear at what endometrial thickness (ET) women should be offered hysteroscopic examination, and whether all endometrial polyps should be removed. One suggestion is to use an ET of 10mm; our current is 5mm.

We wish to offer women with an endometrial polyp a single hysteroscopy investigation, usually as an outpatient, with the option of immediate treatment ("See & Treat"). By reviewing the outcome of women seen and investigated during the previous year we can estimate the potential number of appointments likely to be needed using different ET thresholds.

Methods

Retrospective review of patients attending with PMB during the first half of 2014. After excluding women with endometrial and other cancers the following was collected: ET on (transvaginal) ultrasound scan (USS); findings at hysteroscopy if performed, including the presence of endometrial polyp(s); histology results of any polyps. Using pathways for three endometrial thicknesses: 5, 7 and 10 mm, we identified how many women had hysteroscopy and how many had polyps identified and if any unsuspected malignancies were identified.

Results

Results for the first 3 months are available: 157 were women referred with PMB and 149 were assessed in the clinic (8 cancelled, failed to attend, seen privately or previous hysterectomy). Following USS, 52 patients had ET ≤3mm and discharged after examination; 25 had ET >3 mm but < 5mm with no adverse histology on biopsy; 12 (8%) had endometrial cancer, 1 (0.7%) EIN; no records found for 5 women.

54 women had hysteroscopy because ET ≥5mm or not measurable. Endometrial polyps were found in 32 (59%) and removed with no adverse histology. For an threshold of ET ≥7mm, then hysteroscopy would be offered to 29 women, with polyps in 22 (76%); for ET ≥10mm, this would be 11 women, with polyps in 11 (100%).

With a threshold of ≥7mm only 22/32 (68%) of the polyps would be found and with ≥10mm only 11/32 (34%).

Conclusions

Hysteroscopy would be offered to 5, 2 to 3, or 1 women per week for ET ≥5mm, ≥7mm and ≥10mm respectively with polypectomy in 2 − 3, 2 or 1.

With ET threshold of ≥7mm or ≥10mm, polyps would be missed in â…“ or â…” of symptomatic patients.

Increased patient satisfaction may follow hysteroscopy rather than biopsy alone, but with ET ≥10mm fewer women undergo an invasive and potentially painful procedure. With a thin ET only small polyps are likely and their removal may not be necessary.

ES24-0486
Free Communication 11 Hysteroscopic Surgery + Complications

The Cattle Uterus: Development and Validation of a Novel Animal Laboratory Model for Advanced Hysteroscopic Surgery Training

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Background

Advanced hysteroscopic surgical procedures such as trans-cervical resection of endometrium, polyp, fibroid and septum are minimally invasive procedures which have a slow learning curve and a narrow margin for error.

In recent years, due to reduced training opportunities, the major shift in surgical training is towards the use of simulation and animal laboratories. Despite the merits of Virtual Reality simulators, they are far from representing the real challenges encountered in theatres. We introduce the 'Cattle Uterus Model' in the hope that it will be adopted in training courses as a low cost and easy to set-up tool. It adds new dimensions to the advanced hysteroscopic surgery training experience by providing tactile sensation and simulating intra-operative difficulties.

Methods

We organized a three-day hands-on advanced hysteroscopic surgery workshop that was attended by 14 consultants and senior trainees in gynaecology from the United Kingdom and overseas.The 'Cattle Uterus Model' was introduced for the first time where every candidate was trained on one uterus. The two uterine horns were clamped as close as possible to the uterine body using adjustable cable ties. The cervical canal of all uteri was wider than 10mm; therefore similar cable tie was used to constrict the cervix, making it fluid tight. Each uterus was fixed to a purpose built plastic crate using Allis forceps. The setup was then placed on top of a table with a pail below it to allow the saline to drain. A bipolar electro-surgery resection system and a high definition stack system were used to perform endometrial and septal resection.
Candidates attending the course were instructed to complete feedback questionnaires, to assess Face (training capacity) and Content (performance) validity for each of the practical skills stations. They were also given an opportunity to provide an overall score for each station and elaborate with free comments. The scores ranged as poor, average, good or excellent.

Results

Simulation of endometrial and septal resection using cattle uterus turned out the most popular station, and was rated 'Excellent' by 93% of candidates, with no poor or average scores. This was markedly better than computer graphic interfaced simulation platforms which achieved only 43% of its overall scores as ‘Excellent’. Candidates preferred the realism of the resection on the 'Cattle Uterus Model' with comments in favour of the model such as it being ‘excellent’ and a ‘great experience’ and provided them with ‘a real feel of how it works’.

Conclusions

Hand-on workshops are an integral part of professional development in advanced hysteroscopic surgery, and certainly the RCOG recommends that trainees attend such workshops as part of their advanced training modules. We believe that using the 'Cattle Uterus Model' will facilitate rapid acquiring of necessary skills complementing conventional surgical training, aiming to maximize clinical exposure and experience.

ES24-0399
Free Communication 11 Hysteroscopic Surgery + Complications

Complications of Operative Hysteroscopy Performed with the Bigatti-Shaver (IbsÂ®)

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Background

Operative hysteroscopy represents the gold standard procedure for the treatment of benign intrauterine diseases. Endometrial polyps, submucous fibroids, uterine septa, intracavitary synechiae and recently also placental remnants in premenopausal and postmenopausal women are approached by operative hysteroscopy. The safety of operative hysteroscopy has been reported by several studies with a complication rate of 0.22%-0.95%. However, morbidity and mortality have been occasionally reported. These complications include cervical laceration, uterine perforation, bowel and bladder injury, hemorrhage, fluid overload syndrome and endometritis. The prompt recognition of complications and their correct treatment has prevented undesirable patient outcomes. The reported literature complication rate is only referred to monopolar or bipolar resectosopy. The aim of this study is to evaluate the complications rate associated with the use of the Bigatti-Shaver (IBS®).

Methods

From June 2009 to April 2015 we have performed with the Bigatti-Shaver (IBS®)n.653 operative hysteroscopies. Complications data were recorded. We defined a complication as an unexpected event during the surgical procedure requiring a further treatment or a conversion to bipolar resectoscopy in order to end the procedure.

Results

Complications occurred in n.11 patients (1.6 %), of whom: n.7 cases of intraoperative haemorrhage (1.07%), n.2 cases of uterine perforation (0.3%) and n.2 fluid overload (0.3%). During the removal of very hard myomas a conversion to bipolar resectoscopy was necessary In n.4 cases (0.6%). Two-thirds of the complications occurred during large myomas removal (> 3 cm).

Conclusions

Operative hysteroscopy performed with the Bigatti Shaver (IBS®) has shown a very low complications rate. The higher complication rate has been reported for intraoperative haemorrhage as no coagulation option was offered by the Shaver. On the other hand, we did not report any severe lesion due to electrosurgery. No complication rate was reported for synechiolisis or metroplasty compared to the higher complications rate reported by the use of bipolar resectoscopy. In addition cervical dilation up to n.8.5 of Hegar, necessary for the Bigatti Shaver (IBS®), has reduced the risk for cervical lacerations. Myomectomy has been the procedure with higher risk of complications for this reason efforts should be focused on improving the technique for this indication.

ES24-0473
Free Communication 11 Hysteroscopic Surgery + Complications

A New Hysteroscopic Technique for Reversible Long- Acting Reproductive Control (Relarc) Office Hysteroscopy, or with Other Intrauterine Operations in Hospitals or Outpatient Clinics

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Background

All currently available sterilization methods although highly efficacious are unfortunetaly irreversible. Costly microsurgicaly repair is necessary to undo laparoscopic tubal sterilization and transzervical methods cannot be reversed, thereby forcing women to resort to in vitro fertilization. Many career postpone pregnancy and therefore need long-term, well tolerated and effective contraception.

Methods

A simple and safe method is presented, which can be used in the office with the aim to fill this contraceptive gap. The device is frameless and is anchored in the fundus of the uterus.

Results

Several cases, including insertion video, are described and discussed, which illustrate the new technique and use of the device.

Conclusions

ReLARC is simpel, safe and quick to insert. It is suitable for office use with or without anaesthesia or sedation. The copper-based device is immediately effective and has a track record of high tolerance and acceptability with long term duration of action. In contrast with other transcervical irreversible surgical procedures this hysteroscopically technique is reversible as demonstrated in return to fertility studies.

ES24-0456
Free Communication 11 Hysteroscopic Surgery + Complications

Integrated Bigatti Shaver Morcellator (IbsÂ®) Versus Standard Hysteroscopic Resection for Endometrial Polyps Treatment: A Prospective Comparative Study

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Background

To compare the standard hysteroscopic resection and the morcellation approach for endometrial polyps treatment.

Methods

Prospective non randomized single center study. All the patients treated for a single endometrial polyp between September 2014 and April 2015 at the CMCO hospital in Schiltigheim, France, were prospectively included. Patients were treated by either standard hysteroscopic resection or morcellation. Hysteroscopic resections were performed with standard resectoscopes. Hysteroscopic morcellations were performed with a hysteroscopic morcellator, IBS®, Storz.

Results

A total of 50 patients were included: 22 were treated by morcellation and 28 by standard hysteroscopic resection. A conversion to a classic procedure was necessary in one case (4,5%) when using the IBS®. The mean age of the patients was 52,8 years. The duration of the procedure was significantly lower in the morcellator group: 6,5 versus 9,7 minutes (p = 0,033). The fluid quantity used during the procedure was lower when using the IBS® device (431 versus 1224 mL; p < 0,001) and so was the fluid deficit at the end of surgery (25 versus 212 mL; p = 0,006). Mean marks for the surgeon's vision quality were higher in the morcellator group (4,6 versus 3,9 on a scale of 5; p = 0,001), and so was the surgeon's comfort (9,5 versus 7,4 on a scale of 10; p < 0,001). The operative device was less frequently reinserted when using the IBS® (1,3 versus 5,8 times; p < 0,001). An asymptomatic Operative Hysteroscopy Intravascular Absorption (OHIA) syndrom was noted in one case (3,4%) in the standard resection group. Most of the cases were performed by a resident in the resection group (65,5%), most of the cases were performed by an attending physician in the morcellation group (72,7% ; p = 0,007), which might induce a bias.

Conclusions

Our results suggest that endometrial polyps hysteroscopic resection is faster, with less fluid deficit, better vision and better comfort for the surgeon, when a morcellator is used. These results need to be confirmed by a randomized controlled trial.

ES24-0424
Free Communication 12 Hysteroscopic Surgery + Reproductive Medicine

Hysteroscopic Section of Arcuate Uterus: About 21 Cases.

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Background

The aim of our study was to assess our experience in hysteroscopic section of arcuate uterus especially in analyzing the number of pregnancies obtained after surgery and the delay in first conception.

Methods

This descriptive and retrospective study was conducted in a university hospital (CMCO – HUS – Schiltigheim – France) including an Assited Reproductive Techniques (ART) department. In this center, arcuate uterus is defined as a small septation of myometrium of less than 10 mm from the line connecting the two tubal ostia in 3D ultrasound imaging. Inclusion criteria: all patients who benefited from hysteroscopic section of arcuate uterus in our center between march 2006 and september 2013.Exclusion criteria: all patients who presented additional uterine malformation and who needed an hysteroscopic metroplasty.The hysteroscopic section of the septum was performed in the first period of the cycle or under estroprogestative treatment, with a general or epidural anesthesia. Operative hysteroscopes (Bettocchi - Storz, Tuttlingen, Deutschland) were used according to the « see and treat technique » with a bipolar electrode (Versapoint - Gynecare, USA). The small septation was sectionned, step by step with lateral movements from the electrode. Our protocole included a diagnostic hysteroscopy 5-8 week after surgery.Primary outcomes of the present study were the number of pregnancies obtained after surgery, their evolution and the delay in first conception.Data were collected and updated regularly using the Computerized Medical Records System (DIAMM®, société MICRO 6 and MEDIFIRST ®).

Results

21 patients (mean age of 34,5 years ± 4,3 (26,3-42,7)) were included, with a long past of infertility (mean 5,2 years ± 3,4 (0 -16)). Other causes of infertility were found in 90,5% of cases and one or more failures of previous ART procedures in 76,1 % of cases. In 52,4% of cases, patients presented one or more spontaneous miscarriages in their reproductive history. We didn't have any complications in peri-operative period. The mean following period was 35 months ± 40,92 (12,72 - 82,2). Twelve patients (57,2%) were pregnant after surgery, with a total of 15 pregnancies. The delay to first conception was 9,9 months ± 8,44 (1,86-26,9). ART inducted most of the pregnancies (10: 66%) but we counted 5 spontaneous pregnancies. There were 3 (20%) spontaneous abortions and 2 (13,3%) premature births. The take-home baby rate was 80%.

Conclusions

Our experience of hysteroscopic section of arcuate uterus and recent literature datas suggest that this surgical procedure could improved pregnancy rates and live birth rates in infertile women. It should be proposed in case of spontaneous abortions (>2) and implantation failures in IVF procedures.

ES24-0398
Free Communication 12 Hysteroscopic Surgery + Reproductive Medicine

Reproductive Outcome of 10 Years Asherman Surgery

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Background

Asherman's syndrome is a serieus threat for women in their reproductive life. Asherman Syndromen are the presence of intra uterine adhesions in the uterine cavity with symptoms of amenorrhea or hypomenorrhea or subfertility. There are several possible underlying causes of intrauterine adhesions (IUA) as a result from a traumatic event to the uterine endometrium. This is possible in a gravid and a non-graviduterus – intended and non-intended.
Historically pregnancy rates were about the same wheater or not to be treated for IUA. But this were mild adhesions. Studies on pregnancy rates and life birth before and after surgery are difficult to obtain and to compare. Especially since these studies are outdated.
We followed 638 wonen over the last 10 years who were operated in our clinic for mostly severe adhesions and reported on reproductive outcomes, pregnancy rates and life birth.

Methods

Reproductive cohort 2003-2013
prospective follow up by phone and email

Results

The response rate was 80%. The pregnancy rate was 75% with a life birth rare of 67%.
The placenta implantation problems, like placenta accreta, increta or percreta are significantly higher compared to the normal population. There is a higher chance of premature delivery found in our cohort of women. We found a five times higher chance of post partum complications.

Conclusions

The pregnancy and lifebirth rates after succesfull adhesiolysis in women with Asherman syndrome are good but the their significantly higher chance of placenta implentation problems are a real threat for their pregnancy and post partum period

ES24-0534
Free Communication 12 Hysteroscopic Surgery + Reproductive Medicine

Adenomyosis Within a Uterine Septum Treated by Hysteroscopy: Case Report and Literature Review

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Background

Adenomyosis can be seen by hysteroscopy in some cases. It's association with uterine septum is rare and there are only two case reports published in the literature so far. We discuss a rare case with literature review and demonstrate the surgical treatment using hysteroscopy for adenomyosis and submucosal fibroid in a uterine septum in a woman with infertility.

Methods

A case of a 45 year old woman with secondary infertility, polycystic ovary syndrome and endometriosis. She had a history of one first trimester miscarriage and 3 failed in vitro fertilization attempts. Also she was diagnosed to have a uterine septum by office hysteroscopy. The patient underwent operative hysteroscopy and resection of a uterine septum and submucosal fibroid. Literature search on pub med for adenomyosis and uterine septum was performed.

Results

At hysteroscopy the patient was found to have a very thick and wide septum extending till mid uterus. Both tubal ostea were seen. The right ostium had filmy adhesion over it. On excising the septum chocolate material was seen leaking from inside on the left side due to adenomyosis. A myoma of 3 cm size was found central within the septum during the excision, it was excised in a second hysteroscopy procedure. Uterocervical length was14 cm after excising the septum. We found only two case reports of uterine septum associated with adenomyosis.

Conclusions

Adenomyosis and myoma inside a uterine septum can successfully be diagnosed and managed by hysteroscopy. Adenomyosis of a uterine septum should be considered when features of adenomyosis are present in the adjacent uterus at MRI. Further research is needed to investigate this association with the pathogenesis of adenomyosis.

ES24-0114
Free Communication 12 Hysteroscopic Surgery + Reproductive Medicine

The Use of 3D USG for the Diagnosis and Mapping of Concurrent Endometrial and Subendometrial Pathology Prior to Hysteroscopic Surgery: a Case Report

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Background

While there are several techniques available for the evaluation of congenital uterine malformations, 3D ultrasound allows for the concurrent evaluation of both the endometrial cavity and subendometrial space. As this combined assessment cannot be achieved by hysteroscopy alone, we present a case report that demonstrates how 3D ultrasound can successfully be used to diagnose and map out concurrent endometrial and subendometrial pathology prior to hysteroscopic surgery.

Methods

Madam K was initially referred for secondary subfertility and light menstrual flow. She had a history of three first-trimester surgical terminations of pregnancy and a subsequent outpatient hysteroscopy had shown a uterine septum. She was therefore referred to our unit for further management. A 3D ultrasound in the follicular phase confirmed a septum of 8.8mm (51% cavity indentation according to the ESHRE-ESGE classification) but also demonstrated a 1cm subendometrial cystic structure at the left lower part of uterus which could not be appreciated on the previous outpatient hysteroscopy. There was no ultrasonographic evidence of adenomyosis. A repeat 3D ultrasound in the luteal phase showed the septum to be 12.4mm (56% cavity indentation) confirming the diagnosis of a septate uterus according to the ESHRE-ESGE classification. The subendometrial cystic structure remained intact, and the exact location was mapped out in the 3D coronal view in preparation for the hysteroscopic surgery.

Results

Hysteroscopic resection of uterine septum was performed based on the 3D ultrasound assessment of the cavity indentation. In addition, marginal lateral wall intrauterine adhesions at the junction of the endocervical canal were noted, although the cystic structure in the lower uterine cavity could not be identified. By utilising the stored 3D ultrasound images along with ultrasound-guided hysteroscopic dissection of the left lateral marginal adhesions, we were able to identify and resect the subendometrial cyst, which appeared to be compatible with fluid collection within a previous false track created during one of the previous terminations of pregnancies.

Conclusions

The use of 3D ultrasound allows an accurate assessment of endometrial and subendometrial pathology. This serves as ideal companion to any hysteroscopic procedure, not only in terms of planning and mapping out the operation, but also in terms of performing ultrasound guided hysteroscopic surgery to increase safety and precision.

ES24-0123
Free Communication 12 Hysteroscopic Surgery + Reproductive Medicine

Clinical Experience in the Radiowave Energy Use, Intercoat Gel Application and Rehabilitation Therapy in Treatment of Progressive Tubal Pregnancy

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Background

To develop a new method of laparoscopic treatment including radiowave salpingotomy and tuboplasty, intraoperative adhesions prevention and postoperative rehabilitation in patients with progressive tubal pregnancy

Methods

Laparoscopic surgery in 210 patients with progressive tubal pregnancy was performed. Adhesions were assessed in accordance with AFS score. Concentrations of IL-1ß, TNF-α and fibronectin in peripheral blood serum evaluated. Determination of the IL-1ß, IL-2, IL-6, TNF-α level in peritoneal fluid of patients with progressive tubal pregnancy was performed. Immunohistochemical analysis of adhesions, taken from patients during laparoscopic surgery, using SuperFrost Plus slides was made. All 210 patients divided into 2 equivalent groups. I-II degree adhesions revealed in 46 (21.9%), III-IV degree - in 30 (14.3%) patients. 2nd clinical group patients underwent linear salpingotomy with spear electrode by monopolar diathermy 60W current, removal of fetal egg from the fallopian tube was performed by liquid flow with subsequent bipolar 20 W coagulation of the fallopian tube edges; intraoperative prevention of adhesions – 200 ml of saline with 4 mg of dexametazone. The third clinical group patients underwent linear salpingotomy using radiofrequency energy output of 60 watts, the removal of the ovum - by fluid flow, subsequent 20 watts bipolar radiowave coagulation of tubal edges; intraoperative administration of 40 ml of Intercoat gel to the small pelvis cavity, distreptase in suppositories 10 days per rectum were used. 30 days postoperatively we performed 10 sessions of intrauterine electrophoresis of enzyme preparations using the Foley catheter for the administration of fluids into the uterus and fallopian tubes in 3rd group. Results of treatment of 2nd and 3rd clinical group patients at 1 year after rehabilitation therapy were compared with each other and with the fertility rate of 40 healthy women in 1st clinical (control) group.

Results

In patients with progressive tubal pregnancy there is an increase of serum IL-1ß, TNF-α, fibronectin levels. Patients with progressive tubal pregnancy and adhesive process noted a significant increase in the peritoneal fluid of IL-1, IL-6, TNF-α. Catamnesis study of 2nd group patients within 2 years revealed pregnancy in 50 (47.6%) patients, including 36 (34.3%) uterine and 14 (13.3%) - recurrent tubal; third group patients – 66 (62, 8%) women conceived, including uterine pregnancy in 57 (54.3%) and 9 (8.6%) – recurrent tubal pregnancy.

Conclusions

Radiowave energy method of laparoscopic tubal pregnancy treatment with intraoperative adhesions barrier gel application and postoperative rehabilitation is recommended. It provides 1.6 times increase of uterine pregnancy, and 1.5-fold decrease of recurrent tubal pregnancy.

ES24-0005
Free Communication 12 Hysteroscopic Surgery + Reproductive Medicine

Comparative Study of Vaginal, Abdominal and Robotic Laparoscopic Hysterectomy: Clinical Outcome and Cost

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Background

Compare the effects of different hysterectomy methods on length of hospital stay, post-operative outcome and total hospital charges.

Methods

Data was collected from the office and hospital electronic medical records (EMR), and questionnaires were used to determine patient's post-operative outcome. Patients were divided into three surgical groups: total vaginal hysterectomy (TVH), total abdominal hysterectomy (TAH) and robotic laparoscopic hysterectomy (RLH). Exactly 211 patients were reviewed but only 203 had completed medical records. Of those, exactly 140 patient questionnaires were completed.

Results

Retrospective study of all consecutive hysterectomy cases from 01/01/2008 to 07/31/2008 was performed. Patient's office and hospital EMRs were used to determine patient demographics, length of hospital stay, operative time, estimated blood loss (EBL) and total hospital charges. TAH was found to have a significantly higher hospital stay of 2.88 days when compared to TVH with 1.66 days and RLH with 1.39 days. RLH had a significantly higher operative time than TVH and TAH. There were no significant differences in hospital charges between RLH and TAH, but both TAH and RH had significantly higher total charges than TVH. Additionally, TAH had higher reported post-operative pain level than TVH and RLH. TAH had significant higher EBL than RLH, but there was no significant difference in EBL for other methods.

Conclusions

Our study reveals significant different in length of hospital stay in TAH versus all other hysterectomy methods. TAH and RLH have a significant difference in hospital charges versus TVH while there was no significant difference between TAH and RLH hospital charges. TAH had a higher level of post operative pain than RLH and TVH.

ES24-0292
Free Communication 12 Hysteroscopic Surgery + Reproductive Medicine

First Spontaneous Ovarian Hyperstimulation Syndrome in a Muliparus Woman: a Case Report and Review of Literature

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Background

Spontaneous Ovarian hyperstimulation Syndrome (sOHSS) is rare but a well described phenomenon in reproductive medicine with less than 100 cases reported in literature.

Methods

We are describing a case of sOHSS in the fifth pregnancy of a lady who had previous 4 healthy term pregnancies without sOHSS. A review of literature through electronic databases was carried out to describe the previously reported cases and the indications for surgical interventions in such cases.

Results

In addition to the 64 cases summarized by Panagiotopoulou et al till November 2012, we have identified 21 other cases published in the period after that to 30th April 2015. Beside uterine evacuation for abnormal pregnancy (molar pregnancy and miscarriages); few cases required surgical intervention and mainly by laparoscopy., the indications for surgical interventions have been reported to be; suspected ovarian torsion, to rule out malignancies and/or confirmation of diagnosis and ascetic tap.

Conclusions

sOHSS is a rare condition that needs to be kept in the differential diagnosis when the clinical picture is suggestive. The most common indication for abdominal surgical intervention in such cases is the suspicion of ovarian torsion

ES24-0080
Free Communication 12 Hysteroscopic Surgery + Reproductive Medicine

Acquired and Genetic Thrombophilia in the Premature Detachment of Normally Situated Placenta and Anticoagulant Therapy

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Background

Premature detachment of normally situated placenta (PDNSP), which often occurs during pregnancy, aggravated by pre-eclampsia (PEc)- a complication in which there is an acute form of classical DIC syndrome with the emergence of massive obstetric bleeding, circulatory disorders, up to multiple organ failure. PDNSP frequency of generalized data of world literature varies between 0.5-1% in relation to all leave. The purpose of the study. Identification of causal link between the acquisition of antiphospholipid syndrome (APS), some genetic thrombophilia (TPh) and PDNSP; pathogenesis-based prevention and treatment of TPh.

Methods

The study involved 167 women with a history of PEc age 18-45 years. Of these, group I (Retrospective surveyed) consisted of 98 women. In this group of women were recruited according catamnesis over the past five years. Group II (conducted prospectively) submitted 69 pregnant women. The study included interviews and clinical laboratory diagnostics (in the presence of TPh). The study was carried out of the hemostatic system with the identification of molecular markers thrombinemia (TAT, F1 + 2, D-dimer). When defining them according to anamnesis is an indication for the research patients, enters our survey for the presence of APS acquired and genetic forms of TPh (mutation MTHFR C677T, FV Leiden, Pt G20210A).

Results

The feature of pregnancy in the group of patients studied retrospectively, expressed early onset and severe PEc. Methods of diagnosis polymerase chain reaction in the examined women in this group with a history of PONRP FV Leiden mutation was detected in 8 (8.1%) cases, MTHFR - in 2 (2%); hyperhomocysteinemia - in 9 (9,1%), MTHFR + APS - 7 (7.1%); FV Leiden + APS - 2 patients (2%). Genetic and combined forms of TPh in women with a history of PDNSP detected in 28 (27.4%) cases. Anticoagulant therapy was LMWH - fraxiparin, kleksan, tsibor. So, out of 167 pregnant women with PEc, MTHFR mutation was 72 (43,1%), FV Leiden - 15 (9.1%), mutation G20210A Pt - in 9 (5.4%). Total genetic defects were detected in 96 (57.4%) of patients surveyed, combined genetic defects - in 24 (14.6%), APS - in 27 (16.9%) patients. Associated APS and genetic TPh identified in our study, 25%. In group III, 20 (29.1%) of pregnant women in 18 (23.3%) identified TPh with symptoms that characterize the moderate and severe PEc. This proves that in severe forms of PEc only effective treatment is abortion surgically.

Conclusions

The earlier started antithrombotic therapy, the more favorable during gestation.
Antithrombotic prophylaxis in women with PDNSP in women with a history of not only prolong pregnancy until its positive outcome, but also prevent the development of severe preeclampsia, fetal loss syndrome, and thrombotic complications, which in turn indicates the generality pathogenetic links of pregnancy complications in patients with TPh.

ES24-0170
Free Communication 12 Hysteroscopic Surgery + Reproductive Medicine

Is Synechia a Complication of Open Myomectomy?

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Background

To document rate of uterine synechia and risk factors.

Methods

This prospective audit was done in the gynaecologic unit of a teaching hospital from may 2009 to june 2014. Women aged from 18 to 45 years old and who had an open myomectomy (by laparotomy) for myomas were included. Open myomectomy with a postoperative diagnostic office hysteroscopy after a 6 to 8 weeks period following the myomectomy was performed.

Results

98 women with an open myomectomy and a postoperative hysteroscopic control were included. Intrauterine adhesions rate after open myomectomy was 25.51% including 44% of complex intrauterine adhesions. Risk factor for intrauterine adhesions was opening of uterine cavity for complex synechia with an OR at OR=6.42 [1.27-32.52] and a tendency for all kind of synechia with an OR at 2.54 [0.97-6.65]. Subsequent pregnancy rate was 24% in women with infertility.

Conclusions

Intrauterine adhesions rate after open myomectomy was 25.51%. Risk factor was opening of uterine cavity. Office hysteroscopy 6 to 8 weeks after should be systematic in case of opening of uterine cavity.

ES24-0492
Free Communication 12 Hysteroscopic Surgery + Reproductive Medicine

The Management of Accessory and Cavitated Uterine Mass (Acum)

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Background

To raise awareness about the ACUM and its current management.

Methods

Literature search for all published cases and 2 cases from our hospital were included.

Results

The diagnosis of ACUM is problematic because of the broad differential diagnosis, which includes the rudimentary and functioning cavitated uterine horns found in other uterine malformations (bicornuate uterus and segmentary atresias) and the ademomyomas with cystic or degenerated areas. The common history of symptomatic patients is worsening dysmenorrhea and acyclical pelvic pain. The diagnosis can be made with ultrasound or magnetic resonance although a hysterosalpingogram is also advised to verify the presence of a normal uterus and tubes. The treatment of ACUM is reserved for the symptomatic patients where painkillers and hormonal preparation have failed to control their symptoms. Surgical treatment requires excision of the mass either with laparoscopy or laparotomy depending on the surgical expertise (tumourectomy/ACUMectomy). Medical treatment involves the injection of alcohol in the cavity of ACUM under ultrasound guidance. This is a recognised treatment of true adenomyomas with very good outcomes.

Conclusions

An ACUM is a rare rare Mullerian anomaly in women with usually an otherwise normal uterus. It has significant clinical manifestations, particularly severe dysmenorrhea and acyclical pelvic pain. Its correct diagnosis and management is essential.

ES24-0422
Free Communication 12 Hysteroscopic Surgery + Reproductive Medicine

Hysteroscopic Surgery of Fibroids, Polyp, Septum and Intrauterine Adhesions Improves Reproductive Outcomes- What is the Evidence?

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Background

This review assessed if hysteroscopic surgery improves reproductive outcomes in subfertile women with fibroids, endometrial polyp, uterine septum and asherman syndrome.

Methods

Evidence based literature review

Results

Fibroids are classified according to anatomical location. Women with submucous fibroids had a lower pregnancy rate compared to subfertile women without fibroids and surgical removal for submucous fibroids appeared to improve pregnancy rates. Women with intramural fibroids had a lower pregnancy rate but no significant benefit from surgical treatment has been shown. Women with subserosal fibroids had similar fertility outcomes to subfertile women without fibroids. So there is no need for surgical treatment to improve reproductive outcomes. These findings are based on observational studies. But cochrane reviews which included only one randomised control study showed no beneficial effect of myomectomy on reproductive outcomes for intramural, submucous, combined intramural and subserous or combined intramural and submucous fibroids. There was no difference in reproductive outcomes with either open or laparoscopic myomectomy (two studies) according to the cochrane review.
Hysteroscopic polypectomy in subfertile women is effective in improving fertility. There does not appear to be differences in clinical outcomes with different hysteroscopic techniques. The hysteroscopic removal of endometrial polyps suspected on ultrasound in women prior to intrauterine insemination may increase the clinical pregnancy rate.
The incidence of uterine septum is not increased among women with subfertility compared with other women (2–3%) but more common in women who have had recurrent pregnancy loss or preterm birth. Prospective and retrospective observational studies reported improvement in clinical pregnancy after hysteroscopic resection of septum. Cochrane review reported that hysteroscopic metroplasty in women with recurrent miscarriage and a septate uterus is being performed to improve reproductive outcomes. But only now the first randomised controlled study for its effectiveness is currently undergoing (TRUST study).
Hysteroscopic treatment of intrauterine adhesions (asherman syndrome) is vita to help subfertile women. Treatment of the severe and dense adhesion remains more challenging. Monopolar surgery has provided results as satisfactory as bipolar. Laser vaporization is not used routinely. Adhesions recurrence rate is significantly higher in severe cases. For prevention of intrauterine adhesions copper IUCD, intrauterine balloon stent or foley catheter should be left insitu. Restoration of normal endometrium is achieved with medical therapy.
The use of any anti adhesive barrier gel following hysteroscopy surgery decreases the incidence of denovo adhesions. It's use is recommended by systematic review. The number needed to treat is 9.

Conclusions

Hysteroscopic surgery for endometrial polyp and intrauterine adhesions is effective in improving reproductive outcomes. However, a more careful approach for women with submucosal fibroid and uterine septum should be undertaken as there is insufficient evidence to offer hysteroscopic resection of all submucosal fibroids or uterine septum. Anti-adhesive barrier gel should always be used after hysteroscopic surgery.

ES24-0215
Free Communication 13 Laparoscopic Surgery

Major Complications Associated with over 1200 Operative Laparoscopies: Multicentre Review.

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Background

Study Objective: As an increasing number of indications for operative gynaecological laparoscopy continue to present the number being performed is rising, however, the minimally invasive approach continues to be a challenge for even experienced surgeons. Traditionally associated with increased complications, are the shorter recovery times for patients worth the risk?

Our objective was to review the incidence of major complications following operative gynaecological laparoscopic surgery.

Methods

Design: Retrospective review study.

Setting: A multicenter retrospective review of 1244 operative laparoscopies over a 82-month period by three internationally trained advanced laparoscopic surgeons.

Patients: Patients who had undergone operative gynaecological laparoscopies were included.

Intervention; Cases were identified from operative log complemented by chart review. Complications diagnosed intraoperatively and postoperatively were analysed.

Results

Measurement and main results: Major complication rate was 17/1244,1.36%. This included damage to bowel (5/1244), bladder and urinary system (5/1244), vascular injury (6/1244) and one death secondary to pulmonary embolus. Analysis of the timing of the complication being recognised included at entry (1/1244), intraoperatively (5/1244) and delayed (11/1244). The majority of the complications were managed laparoscopically 10/17 (58.8%) and 9/17 (52.9%) were successfully managed by the gynaecologist.

Conclusions

Conclusion: The major complication rate is low, and compares favourably with those reported in the literature for open and vaginal equivalent procedures. Many major complications can be managed by the gynaecologist using a laparoscopic approach thereby avoiding the morbidity associated with laparotomy.

ES24-0167
Free Communication 13 Laparoscopic Surgery

Comparison Between Two Techniques in Laparoscopic Treatment of Ovarian Endometriomas

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Background

Objective : To compare between two techniques in laparoscopic management of ovarian endometriomas with regard to ovarian reserve, pain relief , pregnancy rate and disease recurrence

Methods

Design: prospective randomized clinical trial
Setting : Omam hospital
patients :eighty eight women under 35 years of age presenting for infertility and/or pelvic pain with endometrioma larger than 3 cm were included in the study .None had undergone any surgery for endometriosis
Intervention:patients were randomly allocated at the time of laparoscopy to undergo either cystectomy of endometrioma (group 1) or removal of large part of the endometrioma wall by excision according to cystectomy technique followed by surface coagulation of the remaining 10-20 % of the wall close to the hilus by bipolar electrosurgery
main outcome measures:ovarian reserve,pain relief,pregnancy rate and recurrence rate

Results

Forty four patients were enrolled in each group
As regard ovarian reserve there was statistical significance decrease in antral follicular count and ovarian volume in the cystectomy group but in the new technique group there was no statistical difference
As regard pain relief the 24 month cumulative recurrence rate of dysmenorrhea ,deep dyspareunia and non menstrual pelvic pain were lower in cystectomy group than in new technique group
As regard pregnancy rate the 24 month cumulative pregnancy rate was higher in cystectomy group than new technique group
As regard recurrence of the disease: recurrence of small endometrioma was recorded in 2 cases in cystectomy group in comparison to 5 cases in in new technique group

Conclusions

The combined technique (stripping and coagulation) has proven to be safe on ovarian reserve in comparison to stripping technique .
However , Stripping technique showed more efficiency as regard pain relief, pregnancy rate and recurrence.

ES24-0197
Free Communication 13 Laparoscopic Surgery

Laparoscopic Hysterectomy: Evaluating and Improving Service Through the Enhanced Recovery Pathway

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Background

The Enhanced Recovery Pathway (ERP) for laparoscopic hysterectomy (LH) was introduced in our department in 2011. Following an initial audit in 2013, a new patient information leaflet and nursing care pathway specific to LH were introduced. All staff were educated regarding the pathway. The aims for catheter removal on day one, discharge under 24 hours postoperatively and early feeding (unless otherwise stated by the surgical team) were implemented.

The aim of our study was to evaluate our service following implementation of the agreed standards and audit our readmission rate to ensure that early discharge was not associated with missed delayed morbidity.

Methods

A retrospective audit of all patients that underwent LH between March 2014 and August 2014 for benign and malignant disease was undertaken. The results were compared with audit data from the 2013 cohort in order to analyse the effect of the implemented changes. Data was collected from patient medical records. The readmission rate and delayed morbidity were audited prospectively by a telephone consultation and review of electronic medical records of all women that underwent LH for benign disease between December 2014 and April 2015.

Results

70 patients underwent LH for benign and malignant pathology during the study period of the retrospective audit. All patients received a patient information leaflet in the clinic. The updated nursing care pathway was used for all patients. 74% (52/70) of patients were discharged on day one compared to 56% (32/57) in the 2013 cohort. 49% (34/70) were discharged within 24 hours of surgery whereas only 27% (15/57) were discharged within the same time frame in the 2013 cohort. The median time of catheter removal was similar in the two cohorts (16 hours in 2014 versus 17 hours in 2013). In the latest part of our study, 58 patients were assessed for readmission. 6.9% (4/58) were readmitted within 28 days postoperative. 75% (3/4) of readmissions were for a vaginal vault haematoma. Only 1 patient returned to theatre. 16 patients were reviewed by their General Practitioner or reviewed as outpatients in the Gynaecology Assessment Unit within 28 days postoperative.

Conclusions

The changes implemented following our last audit has improved our service as reflected by the increased number of patients with a less than 24-hour postoperative hospital stay. Although a proportion of patients had a further medical review postoperatively, this did not result in a significant number of readmissions. The ERP is safe, cost effective and beneficial for the inpatient bed management. It greatly increases patient experience by avoiding lengthy hospital admissions.

ES24-0406
Free Communication 13 Laparoscopic Surgery

Effectiveness of Laparoscopic Surgery in Improvement of Sexual Quality of Life.

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Background

Endometriosis is a common chronic condition affecting approximately 2-17% of women of reproductive age. Almost 3.8% to 37% of women with endometriosis suffer from dyspareunia which adversely affects their relationship with their partners and has a negative impact on women's quality of life. Several medical compounds have been proposed for treatment these patients. However, pharmacological therapy is not effective in approximately one out of three women. The aim of this prospective cohort study is to evaluate the efficacy of surgical treatment of endometriosis on the degree of dyspareunia and quality of sex life in patients with symptomatic endometriosis who desire pregnancy.

Methods

The study involved 52 patients suffering from deep dyspareunia who underwent surgical treatment by laparoscopy. The presence of endometriosis was documented and the severity of the disease was graded according to the revised American Fertility Society criteria. During laparoscopy endometriomas were excised and ovaries were completely mobilized. Peritoneal implants of endometriotic tissue were fulgurated with low-power unipolar current or excised as well as rectovaginal lesions. All patients were evaluated at 6 weeks after surgery and then at 3-month intervals for one year. At the follow-up period the patients underwent clinical assessment, vaginal and rectal examination and transvaginal ultrasonography. Women were asked to complete a detailed questioner related to the presence of pain (dysmenorrhea, dyspareunia, pelvic pain) based on "women's health symptom survey questionnaire" in each visit before and after surgery. Quality and satisfaction of sex life was assessed by a questionnaire involving their desire for sexual intercourse the frequency of contacts and the sense of satisfaction in a 1-10 numerical scale.

Results

42 (80.7%) women out of 52 showed significant reduction ($P<0.05$) of dyspareunia after surgery after a follow-up period of 12 months. Quality of Sex life also improved significantly ($P<0.05$). Simultaneously, there was a significant reduction in dysmenorrhea and non-menstrual pelvic pain. Recurrence of dyspareunia 3 months after surgery was observed in 2 (3.8%) women. At the end of follow-up deep dyspareunia was still severe in 6 (11.5%) women. The mean number of sexual intercourses increased per month after surgery (4.2 vs 5.4, $P<0.05$).

Conclusions

There was a significant relief of endometriosis-associated deep dyspareunia after surgery. In addition there was an objective improvement in the frequency as well in the sense of satisfaction during intercourse. Complete removal of endometriotic tissue provides long-term pain relief and improvement of quality of life.

ES24-0346
Free Communication 13 Laparoscopic Surgery

Entry Techniques; Can Patient Selection Improves Safety?

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Background

Considering variable techniques, surgeons' experiences and difficulty of the operations, various reports have quoted a complications risk in the range of 1/1000 to 12.5/1000 for all complications. The most common complications are intestinal injuries, urological injuries and vascular injuries. Most of the complications are a direct result of the fact that gaining abdominal entry for laparoscopic surgery is mainly a "blind" procedure. Over the decades, various entry techniques have been described and used. We hereby aim to describe briefly different entry techniques and matching the proper technique to the correct patient based on individual common risk factors for the purpose of reducing the estimated risk of complications

Methods

Review of literature in English language published on PubMed and MEDLINE over the last decade. We also looked at the Cochrane Database for Reviews addressing the same subject. We used the keywords (Techniques), (Entry) and (Safety) for our search

Results

Various entry techniques have been described in the literature. Risks can be reduced if the entry technique to be used is well matched with the patient. Women with previous abdominal surgeries, those who are obese or very thin and pregnant women are candidates for modified entry techniques

Conclusions

While laparoscopic surgery is considered by the majority of gynaecologists a far less risky approach than open surgery, it is not without complications. The complications can be reduced by carefully looking at each patient as a separate individual. After taking all individual risk factors in consideration, the choice of the entry technique can then be made. There is no "all purposes" entry technique

ES24-0390
Free Communication 13 Laparoscopic Surgery

Robotic TMMR (R-TMMR) Vs. Laparoscopic TMMR (L-TMMR) in Early Cervical Cancer: a Case-control Study

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Background

To report our experience with robotic platform “Da Vinci” Si Surgical System to perform robotic TMMR (R-TMMR), and to compare peri-operative results with a series of Laparoscopic TMMR (L-TMMR).

Methods

This is a retrospective Case-Control study, performed at the Gynecologic Oncologic Unit, Catholic University of the Sacred Heart of Rome and Campobasso between July 2013 and December 2014. All cervical cancer patients with pre-operative FIGO stage IA2- IB1 were assessed at pre-operative MRI scan and clinically confirmed by investigation under anesthesia, adhering strictly to the FIGO criteria. The surgical and post-surgical data were collected.

Results

Fourteen women underwent R-TMMR (Cases) and 42 patients were submitted to L-TMMR (Controls) for early cervical cancer. Pre-surgical procedures (trocar placement and docking) required a median time of 8 minutes in the R-TMMR group and a median time of 2 minutes in the L-TMMR group (p=0.0001). The median estimated blood loss was 150 ml in the Cases and 200 ml in the Controls (p=0.992). The median operative time, calculated from the beginning of intraperitoneal procedures to the skin closure, was 246 (180-300) minutes in the Cases and 260 (120-670) minutes in the Controls (p=0.913). The median time to discharge from the hospital was postoperative day 4 and 6 for R-TMMR and L-TMMR, respectively (p=0.001).

Conclusions

The few differences we registered do not seem clinically relevant, thus making the two procedures comparable. Further prospective trials are needed to confirm our results.

ES24-0283
Free Communication 13 Laparoscopic Surgery

Effect of Uterine Manipulation On the Relation of the Ureter and the Uterine Vessels

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Background

Background: Injury of the ureter is a known complication during laparoscopic hysterectomy. Manipulation of the uterus is recommended during laparoscopic hysterectomy in order to reduce the risk of complications, including injury to the ureter and bladder. The objective of this study was to determine and objectify the effect of uterus manipulation on the relation of the ureter and the uterine vessels.

Methods

Methods: A voluntary premenopausal woman without any previous gynecological history or pelvic surgery was examined with a MRI scan with a 3D T2 sequence. Images were obtained with and without maximal cranial mobilization of the uterus.The distance between the ureter and the uterine vessels was measured with and without manipulation bilaterally at three different levels.

Results

Results: At the level of the istmus, the actual distance increased from 38.5 mm at the right side and 26.1 mm at the left side without manipulation to 58.4 mm and 41.7 mm, respectively when the uterus was pushed cranially. The MRI-pictures at different levels of the uterus with and without manipulation will be presented, and the differences of the distance between the ureter and uterine vessels will be demonstrated.

Conclusions

Conclusion: The distance between the ureter and the uterine vessels is significantly increased with manipulation of the uterus. Uterine manipulation should be used during laparoscopic hysterectomy in order to decrease the risk of uterine injury.

ES24-0274
Free Communication 13 Laparoscopic Surgery

Mechanical Bowel Preparation in Laparoscopic Sacrocolpopexy and Sacrohysteropexy

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Background

Laparoscopic sacrocolpopexy (LSCP) and laparoscopic sacrohysteropexy (LSHP) are complex surgeries; these are operative treatments for patients with vaginal vault prolapse or vaginal uterus prolapse, respectively. Mechanical bowel preparation (MBP) is frequently used in laparoscopic surgery. It is thought that it makes the procedure easier and it reduces complications such as bowel perforation. It can however cause bothersome side effects for the patient, as is already shown in medical literature. In our clinic we examined whether MBP is indicated for LSCP and LSHP.

Methods

We changed the current policy regarding MBP. None of the patients undergoing LSCP or LSHP underwent MBP anymore. Afterwards we performed an evaluation to examine the ease of the surgery. After every procedure the gynaecologist evaluated the overall ease of surgery; general evaluation on handling the jejunum, ileum, and colon; and placement of the mesh. Evaluation was done on a 5-point scale. Furthermore we showed videos of the procedure to Dutch gynaecologists. 5 patients had undergone MBP, the other 5 patients had not undergone MBP. The gynaecologists were all blinded for these treatments. We asked the gynaecologists to give their opinion on the ease of surgery and whether they believed the patient had undergone MBP.

Results

The evaluation done by the gynaecologist after each LSCP and LSHP resulted mainly in the qualification 4 out of 5. The average duration of surgery and blood loss was not significantly different to the previously operated patients who did not receive MBP. The Dutch gynaecologists who judged the videos did not see the difference in ease of surgery between the two groups. They were also not able to tell whether a patient had undergone MBP or not.

Conclusions

This evaluation of our changed policy has shown that MBP does not make the procedure easier for the surgeon. It is widely described in the literature that MBP can have bothersome side effects for patients. Therefore there is no indication for MBP prior to LSCP or LSHP.

ES24-0320
Free Communication 13 Laparoscopic Surgery

Particularities of Gynecologic Laparoscopy in Pediatric and Adolescent Patients

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Background

Our review aims to identify the indications and limits of minimally invasive gynecological surgery in pediatric and adolescent girls, actualities regarding instruments, ports placing, incidents and also common findings

Methods

Systematic literature review of books and chapters regarding gynecologic surgery in pediatric and adolescent patients published in the last years from renowed experts in this field, articles and studies published and available through the main search engines and international medical databases.

Results

The use of MIGS(minimally invasive gynecological surgery) in children and young adolescents requires a different approach in terms of instruments and endoscopes sizes that are able to fit through the smallest ports available. Also usually most procedures may be performed without the need of suturing using tissue coagulation, fusion and cutting devices that fit through a 5mm port.The tissular effects are permanently monitored to achieve a delicate dissection in small spaces, minimizing collateral thermal injuries against vascular and digestive structures.The extraction of specimens is accomplished with small incisions using endobags and 10mm ports or special morcellators

Conclusions

Gynecologic laparoscopy to the pediatric and adolescent population is a relative newcomer in the field, with a slowly gaining acceptance as surgeons are becoming familiar with the equipment, procedures and the benefits of the minimally invasive surgery to the patient's evolution and recovery.

ES24-0367
Free Communication 13 Laparoscopic Surgery

Audit On Laparoscopic Entry Technique

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Background

Laparoscopic surgery has become a mainstay in gynaecological investigations and treatment. As with any surgical procedure, it has associated risks of injury, the majority of which occur at the time of entry. The Royal College of Obstetricians and Gynaecologists (RCOG) published a guideline on laparoscopic entry to aid in the reduction of injury. We set out to determine compliance with RCOG recommendations within our unit as pertaining to laparoscopic entry.

Methods

We retrospectively reviewed case notes of laparoscopies performed in the unit over a nine month period between April 2012 and December 2012. 35 cases were identified and 30 case notes were retrieved and analysed using a created audit proforma. Our primary focus was on the documentation of techniques and checks used at the time of laparoscopic entry, with a secondary focus on documentation of risks consented for. As such, we analysed the operation notes and consent forms for these procedures.

Results

96% of cases had a closed entry to achieve pneumoperitoneum and the type of incision (intra-umbilical vs sub-umbilical) was documented in 100% of cases. Initial intra-abdominal pressure for secondary port insertion was documented in 68% of cases and deflation of the abdomen at the end of operation was documented in 64% of cases. The number of attempts at veress needle insertion and performance of saline test were at 32% and 25% respectively. Documentation of insertion and removal of secondary ports under direct vision were at 43% and 36%, while there was no documentation in any of the cases with regards to identification of the inferior epigastric vessels.

Risks of the operation as listed on the consent form were as follows: bleeding 97%, infection 97%, injury to bowel 90%, injury to bladder 70%, injury to ureter 67%, injury to major vessels 43%, laparotomy 37%, injury to ureter 33%, shoulder tip pain 23%, failure to gain access 10%, and port site hernia 7%.

Conclusions

Whilst we performed well in some areas of documentation, this audit highlighted a number of areas for improvement. Informed consent is vital to good medical practice, as it accurate documentation of undertaken procedures, to reflect good surgical practice. To correct these deficient areas, we have devised and implemented a laparoscopic operation note which requires specific documentation of entry techniques and checks used. Similarly, we have produced a laparoscopy specific consent form, with all the risks listed and categorised into minor and major risks to aid in obtaining valid consent for these procedures.

ES24-0507
Free Communication 13 Laparoscopic Surgery

Evaluation of Transvaginal Hydrolaparoscopy as a First Line Investigation for Tubal Pathology: Feasibility and Prognostic Capacity

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Background

THL (transvaginal hydrolaparoscopy) is a safe method to investigate tubal patency and exploring the pelvis in subfertile women. It can be performed as an outpatient procedure and is well tolerated.

Study question: What is the prognostic capacity of THL as a first line investigation for tubal pathology to predict natural conception?

Methods

Between 2000 and 2011, we performed THL as a first line diagnostic test in 1033 subfertile women in four large hospitals in the Netherlands. Follow-up on fertility outcome during 36 months after the procedure was derived by examining medical records.

We studied women with primary or secondary subfertility trying to conceive for at least 12 months. Women were excluded if they had a fixed retroverted uterus, a history of severe pelvic inflammatory disease, rectovaginal endometriosis or large ovarian cyst, or other contraindications for the procedure. Cumulative treatment independent ongoing pregnancy rates were calculated for each category of findings, using Kaplan-Meier analysis. Furthermore we calculated fecundity rate ratios (FRR) to express the relative risk on natural conception.

Results

Cumulative spontaneous pregnancy rates after 36 months were 52% for women with bilateral patent tubes, 48% for women with one-sided tubal occlusion and 7% for women with bilateral tubal occlusion. Corresponding FRRs were 0.93 (95% CI 0.71-1.23) for one-sided tubal occlusion, and 0.10 (95% CI 0.03-0.31) for bilateral tubal occlusion. Endometriosis and adhesions were diagnosed in 61 (6.4%) and 87 (9.1%) of women, with 37 (3.9%) in both. Corresponding FRRs were 0.73 for endometriosis (95% CI 0.49-1.02), 0.62 for peritubal adhesions (95% CI 0,43-0,90), and 0.35 when both endometriosis and adhesions were found (95% CI 0.19-0.71).

Conclusions

Both bilateral tubal occlusion or the combination of endometriosis and adhesions strongly reduce natural conception chances. When using THL as a first line investigation for subfertile couples, women with tubal or peritubal pathology are distinguished from the ones that can conceive spontaneously in an early stage of fertility treatment.

ES24-0527
Free Communication 14 All categories

Laparoscopic Management of Ruptured Ectopic Pregnancy with Major Intra-abdominal haemorrhage (over 1.5 Litres): Case Series and Demonstration of Operative Technique.

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Background

Ruptured ectopic pregnancy with significant intra-abdominal haemorrhage is an indication for emergency surgical management. The choice between laparotomy and laparoscopy have been always subject to debate, with more growing reports supporting the feasibility and safety of laparoscopic treatment in such cases.
Traditionally, laparotomy was the preferred choice for those cases, especially with haemodynamically unstable patients, due to perception that laparotomy is quicker and easier to achieve haemostasis in such cases. Factors affecting choice included: surgeon's, anesthetist and theatre team laparoscopic experience, availability of laparoscopic instruments, patient observations and estimated intra-abdominal loss.

Methods

Our work represents case series of three cases of acutely ruptured ectopic pregnancies, with massive intra-abdominal haemorrhage (Range= 1500 - 3500 ml). All the 3 cases were managed laparoscopically, with haemostasis achieved within 5 minutes of the start of the procedure.
The technique demonstrated could not have been achieved with a knowledgeable supportive theatre team, involving anesthetists, nursing staff and surgeons. The readily available laparoscopic instrumentation facilitated quick procedure and prompt haemostasis.

Results

The technique included: Rapid perioperative resuscitation, +/- bedside US scan. No uterine instrumentation, 10 mm Zero degree scope, 10 mm supra-pubic and 5 mm lateral ports. Quick and efficient suction of blood using a powerful 10 mm suction system. Haemostasis quickly achieved using Endoloop or Ligasure. Non-use of irrigation. Alternating patient position between trendleberg and ante-trendleberg.

Conclusions

In conclusion: Laparoscopic surgery is safe and effective for managing ruptured ectopic pregnancy with significant bleeding. The volume of intra-abdominal bleed should not be a limiting factor in experienced hands.

ES24-0485
Free Communication 14 All categories

Abdominal Hysterectomy Versus Laparoscopic Hysterectomy for Benign Disease: Experience in a Tertiary Referral Centre

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Background

The advantages of laparoscopic surgery over open surgery are well documented, however the vast majority of hysterectomies for benign disease in the UK are still performed abdominally. Initial studies concluded that laparoscopic hysterectomy (LH) was associated with longer operating times, increased bleeding and increased urinary tract injuries. More recently many studies including a meta-analysis concluded that LH is not associated with increased major complications and may confer benefits such as reduced blood loss and hospital stay. The purpose of this study is to assess complication rates and other operative outcomes of abdominal versus laparoscopic hysterectomies in a tertiary referral centre.

Methods

Over a 5-year period (2009-14), all abdominal and laparoscopic hysterectomies performed for benign gynaecological disease were included.

Exclusion criteria included malignancy, uterine size >12 weeks, significant uterine prolapse and deep infiltrating endometriosis.

Outcome measures included operating time, blood loss, major/minor complications, pain assessment and hospital stay. Major complications included major haemorrhage requiring transfusion, haematoma requiring drainage, bowel, bladder and ureteric injury and conversion to laparotomy. Minor complications included post-operative infections and haematoma with conservative management.

Results

Over a 5-year period 446 hysterectomies were performed of which 228 were laparoscopic (51%) and 218 were abdominal (49%) There was no significant difference in patient characteristics between the groups (age, BMI, smoking).

Major complications in the LH group were 4 and included a bladder injury, a conversion to laparotomy due to bleeding and 2 cases of excessive blood loss >500mls requiring transfusion. In the AH group, again 4 major complications, including a bladder injury and 3 cases of excessive blood loss >500mls requiring transfusion, were reported.

The average blood loss was lower in the LH group at 127mls (0-800mls) compared to 203mls (75-900mls). Operating time was also less in the LH group (61 mins) with the average time for an AH 10 minutes more. Routine use of PCA was more common in the AH group, however 32% of women still required breakthrough analgesia compared to 7% in LH group.

Inpatient duration is substantially less in the LH group (1.5 days) and almost half that following abdominal surgery (2.7 days).

With regards to minor complications, 2 vault haematomas were managed conservatively in the LH group, while 2 cases of urinary tract infections and 2 post-operative retentions requiring re-catheterisation were noted in the AH group.
Numbers may change as data collection and analysis are ongoing

Conclusions

This study has highlighted that LH does offer significant advantages over AH including reduced blood loss, quicker operating time, less post-operative analgesia requirements and reduced inpatient stay. LH are safe with a low complication rate comparable to AH. More training is required to increase LH rates in the UK as almost 100% of benign gynaecology cases can be safely performed laparoscopically.

ES24-0487
Free Communication 14 All categories

Successful Term Pregnancy After First Trimester Laparoscopic Cerclage: Case Report of a Patient with a Previous Failed Vaginal Cerclage, Cervical Insufficiency and Bad Obstetric History.

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Background

Present the case of a successful term pregnancy after placement of an abdominal laparoscopic cerclage in a patient with a previous failed vaginal cerclage and bad obstetric history.

Methods

Case report of a 30 year old patient at 10+5 weeks gestation, gravida 4, para 1 with diagnosis of cervical insufficiency, recurrent abortion and actual progressive cervical shortening. She had a past history of premature rupture of membranes (PPROM) with fetal death at 19 weeks, biopsy confirmed placental infarction and chorioamnionitis. A second case of missed abortion at 9 weeks, curettage and biopsy showed chromosomopathy signs. Third case of cervical incompetence at 14 weeks; vaginal cerclage was not possible, she misscarriaged 24 hours later, biopsy confirmed chorioamnionitis. Fourth pregnancy with vaginal cerclage at 12 weeks, prolapse of fetal membranes at 20 weeks and PPROM at 23 weeks. Caesarean section at 23+6 weeks due to umbilical cord prolapse, newborn died during the first hour. The patient also had a history of cervical intraepithelial neoplasia treated twice by cryotherapy. Progressive cervical shortening was detected with a last measurement of 19 mm one week prior to admission. Due to her bad obstetric history and previous failed vaginal cerclage she was scheduled for a laparoscopic cerclage at 10+5 weeks. Under general anaesthesia a standard four port operative laparoscopy technique was used. A fifth ancillary port was placed in order to introduce a fan retractor for uterine manipulation. The uterovesical fold was incised, the bladder dissected downward carefully since she had a previous cesarean scar. The broad ligament was incised at both sides medial to the uterine vessels at the level of the internal os. One end of the 5 mm Mersilene tape was placed through one of tunnels and then brought circumferentially around the cervix. The knot was tied intracorporeally.

Results

The procedure was performed uneventfully. Inmediatelly after the procedure fetal viability was confirmed through ultrasound monitoring of cardiofetal heartbeats. The patient was managed with 200 mg vaginal natural micronized progesterone (Progendo) and Azitromicine due to finding of Mycoplasm and Ureaplasm positive vaginal culture. She had an uneventfull recovery and was discharged 2 days later. Follow-up went on regularly with adecuate cervical screening needing no further readmissions. At 38+4 weeks she was admited for an elective cesarean section, the suture was left in place. The infant weighted 2710 grams, apgar 9-10. Both mother and baby did well after surgery.

Conclusions

Laparoscopic cerclage demonstrated to be a safe and effective procedure in a patient with previous bad obstetric history and at very high risk of preterm delivery who probably didn´t have any other therapuetic choice. Laparoscopic cerclage should be considered as an alternative in patients with previous failed vaginal cerclages or in whom that route is not possible.

ES24-0511
Free Communication 14 All categories

Laparoscopic Surgery for Pelvic Endometriosis as Treatment of Infertility and Various Pain.

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Background

To evaluate the efficacy of laparoscopic surgery for patients with endometorioma, Deep infiltlating endometoriosis (DIE), and adenomyosis in various pain and infertility.

Methods

The change of symptoms and pregnancy rate after surgery were investigated for 377 women with endometriomas, 51 women with DIE and 47 women with adenomyosis who performed laparoscopic surgery. Surgical tecniques were demonstrated on VTR.

Results

-endometrioma -‘The recurrence rate after laparoscopic cystectomy (LC) for endometrioma was 30.8% (116/377) and 5.9% of recurrence patients (7/116) needed to perform secondary laparoscopic surgery. 52 infertile patients (56.5%) have conceived postoperatively. ã€• DIEã€‘The visual analog scale (VAS) of dysmenorrhea was significantly decreased after surgery (7.7±3.2→2.4±1.4). The effectiveness for dysmenorrhea have continued more than 2 years. ã€• adenomyosisã€‘The visual analog scale (VAS) of dysmenorrhea was significantly decreased (9.7±0.9→3.8±2.7) and hypermenorrhea was improved after laparoscopic adenomyomectmoy. 11 infertile patients (36.7%) have conceived postoperatively.

Conclusions

It was figured out that laparoscopic surgery was effective for infertility and dysmenorrhea on patients with pelvic endometriosis and adenomyosis. But there are some recurrence cases after surgery, so the timing for surgery should be decided strictly.

ES24-0535
Free Communication 14 All categories

Feasibility and Interest of Pelvic Lymphadenectomy for the Intermediate Risk in Endometrial Cancer

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Background

The objective of this study is to evaluate the interest and the disease intra operative and post operative of the pelvic lymphadenectomy for intermediate risk in endometrial cancer.

Other criteria considered were interest for further processing defined by the change in the classification following a positive cleaning, and the impact of pelvic lymphadenectomy in adjuvant therapy.

Methods

It was a retrospective study conducted at the university hospital of Strasbourg. We included all patients operated by laparoscopy for endometrial cancer presumed at intermediate risk of recurrence between January 2009 and December 2013. The attribution of patients to this group was based on pre-operative estimation of the depth of invasion of the myometrium and the histological type and grade of the tumor. We did a comparison between the lymphadenectomy group and the non-lymphadenectomy group. The realization of pelvic lymphadenectomy in this group of patients was operator dependent and didn't follow any objective criteria.

Results

We managed 116 patients for endometrial cancer presumed at intermediate risk in the department of obstetrics and gynecology of the Strasbourg University Hospital. Among whom, 93 received treatment with laparoscopy and were included in the study. 70 (75%) underwent bilateral pelvic lymphadenectomy and 23 (25%) didn't underwent a lymphadenectomy.

The evolution of the number of patients who underwent pelvic lymphadenectomy by year showed a statistically significant decrease all over the period of the study ($p = 0.004$) but not between the two sites ($p=0.29$).

There was no difference concerning patients' characteristics in-between both groups in term of age, bmi, parity, gestity and ASA score. The mean duration of surgery was longer when we realized a pelvic lymphadenectomy. The rate of global complication was 56% but only 10% of major complication. We didn't find significant difference between both groups about the postoperative complication major or minor (table 1).

For the postoperative classification we found a significant difference between the two groups in the stage I and in the others stages distribution ($p<0.01$) (Table2).The average number of retrieved lymph nodes was 13 (range: [0-34]). We had seven patients with positive lymph nodes (10%). Concerning these seven patients, three patients were classified as stage IB grade 1 and four stage IB grade 2 on preoperative stage. Postoperatively, four of these seven patients corresponded to grade 3 stage IB on final histological examination.

Conclusions

Pelvic lymphadenectomy by laparoscopy is feasible surgical technique without augmentation of intraoperative and postoperative complication. It can be positive and change radically the adjuvant treatment for this patient.

ES24-0047
Free Communication 14 All categories

The Potential Value of the Haptic Feedback Instrument in Laparoscopic Surgery : a Health Technology Assessment

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Background

Objective:

Assessment of the potential health gain and cost effectiveness using the first haptic feedback laparoscopic instruments in colorectal cancer surgery. Providing tactile feedback improves the performance of the surgeon by better control of grip force, identification of tissue and shorter learning curves. Hypothesis is that in case 100% of all Dutch colorectal laparoscopic surgery would be done by these instruments, there is a potential health gain for the patient and non increase of health cost despite the higher price of these instruments

Methods

Methods and procedures;

All Dutch laparoscopic colorectal cancer procedures are registered annually; the data of 2013 have been used in two decision analytical models. In these models the haptic feedback graspers have been compared to conventional laparoscopic instruments. Model A models the consequences of bowel injury and hemorrhage in both strategies; laparoscopic colorectal surgery is associated with significantly higher rate of bowel injury and bleeding compared to open surgery which indicates the potential value of adding haptic feed back to laparoscopic colorectal surgery.Model B compares the strategies on rate of conversions and its consequences; conversion rate is lower in HAL=hand assisted laparoscopic surgery compared to normal conventional laparoscopy.In HAL haptic feedback is present indicating the potential added value of the FROI.In both analytic models the outcomes were the length of hospital stay and number of days to return to normal bowel function. Data were gathered from literature, Dutch data on colorectal surgery and expert consultation of independent surgeons in general and academic hospitals.

Results

Results: Model A = intraoperative complications, showed a small decrease (0.03) in the average lenght of hospital stay and days to return of normal bowel function (0.02) using the haptic feed back instruments; costs did not rise significantly, 14 € per procedure. Model B = conversions, shows a reduction of 0.07 day averaged in hospital stay and reduction of return to bowel function of 0.07 days. Costs will be reduced with 17€ per procedure.

Conclusions

Conclusion; Despite the fact that in this HTA (Health Technology Assessment) we calculated a much higher price of the haptic feed back graspers and a conservative calculation of the improvement of the rate of complications, the potential outcome of the patient is better and the costs of the Dutch health care system do not increase in case of 100% use of these grippers in all colorectal surgery.

ES24-0467
Free Communication 14 All categories

Scar Endometriosis: Ultrasound Diagnosis and Preoperative Work-Up

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Background

Endometriosis of the abdominal scar is one of the manifestations of the extrapelvic disease and is reported at 0.03 to 1.08 % of women undergoing gynecological or obstetric surgery. The suspicion of the presence of other conditions such as hernia , the granuloma of suture, lipoma , delaying the diagnosis that is often histological . The ultrasonographic features of the lesion can instead to move towards a correct diagnosis and an adequate preoperative work-up .

Methods

The study , observational prospective , was performed on a database (December 2004- June 2014) consisted of patients with a clinical, a ultrasound and finally a histological diagnosis, related to the Gynecology and Obstetrics Unit of Civico Hospital Palermo.The ultrasound examination, performed by transabdominal convex volumetric probe 3.5MHz, was oriented to the study of the abdominal wall based on the data of the physical examination or on the medical history when the nodule was not evident. Subsequently we evaluated the diagnostic sensitivity of transabdominal ultrasound in identifying the endometriosic nodule defining seat, size and morphology after the comparison with the surgical specimen / histology.

Results

31 patients with a mean age of 32 ± 4.5 years. Only three pieces had a previous diagnosis of pelvic endometriosis. The 90.3 % of the patients had a nodule near the scar after physical examination. All patients reported catamenial pain (84%) or chronic pain (16 %) . Physical examination confirmed the presence of the nodule . Every woman was submitted to transabdominal ultrasonography with color Doppler, that showed the presence of a hypoechoic lesion in contrast to the hyperechoic, heterogeneous, nodulare, with irregular margins, frayed, with occasional spots hyperechoic, fat around.The color Doppler was not found intralesional vascularity. The average size was 26.8 ± 13,8mm. The integration 3D has confirmed the irregularity of the edge of the nodule and the presence of “spicolature”. The histologic examination confirmed the diagnosis of abdominal wall on all the pieces and the size of the nodule were 38.6 ± 12.7mm.

Conclusions

The differential diagnosis of abdominal wall endometriomas includes : the hernia, the hemangioma and the hematoma, the abscess and the granuloma . However, the story of the pain and the increase of the mass volume during the menstruation, can be considered pathognomonic for endometrioma. None imaging technique has proved better than others in the diagnosis and assessment of endometrioma wall’s .In our study the transabdominal ultrasound method with 2D \ 3D has shown a sensitivity of 100% to diagnose the nodule and to determine the features for the preoperative work-up.

ES24-0531
Free Communication 14 All categories

Pregnancy and Peripartum Complications After Laparoscopic or Open Myomectomy
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Background

Myomectomy is traditionally presented as a risk factor in perinatology, and the candidates for myomectomy are often discouraged from pre-pregnancy myomectomy due to increased risk of uterine rupture. Our goal was to evaluate the frequency of serious pregnancy and perinatal complications of women after laparoscopic (LM) or open myomectomy (OM).

Methods

All women with reproductive plans and symptomatic intramural uterine fibroid/s larger than 4 cm treated with LM or OM in our gyne-endoscopic center were prospectively followed. All patients were instructed to wait with conception for at least 6 months following myomectomy. In case of gestation the course of pregnancy and labor have been ascertained and recorded with focus on clinical complications.

Results

1283 women (1072 LM and 211 OM) entered the study between the years 2002 and 2014. To our best knowledge 519 pregnancies and 334 deliveries (including 12 twins) have occurred in 399 post-myomectomy women. Their mean age was 33 years. The incidence of complications was as following: 20.4% of abortions, 1.2% of ectopic pregnancies (all tubal), 80.2% of Caesarian sections (mostly elective), 10.2% of preterm deliveries, 1.5% of fetal malpresentations, and 5.7% of preeclampsia and/or intrauterine growth restriction. We have also observed 8 cases of placenta abnormalities (5 placenta praevia, 2 placenta accreta, and 1 abruption), 3 cases of intrauterine fetal death, 2 women with peripartum hysterectomy, and 1 with uterine rupture in 34th gestational week.

Conclusions

Our results show that the incidence of major obstetric complications following myomectomy does not exceed their frequency in normal population and that the risk of the uterine rupture seems to be very low.

ES24-0189
Free Communication 14 All categories

NOTES Adnexectomy: A New Approach to Adnexectomy Via Natural Orifice Transluminal Endoscopic Surgery

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Background

Aiming to reduce surgical morbidity, we introduced pure transvaginal NOTES (vNOTES) adnexectomy in our practice in November 2013 as an alternative for a laparoscopic adnexectomy. In this study we present our initial experience with the first 50 adnexectomies by pure vNOTES.

Methods

50 Patients were operated by pure vNOTES adnexectomy for benign indications. All procedures were performed by pure vNOTES; no abdominal incisions were made. Patient and perioperative data were collected. The technique is demonstrated in a short video.

Results

vNOTES adnexectomy was successfully performed in 50 patients. No major complications occurred and no conversions to standard laparoscopy or laparotomy were necessary.

Conclusions

vNOTES adnexectomy was successfully introduced in our daily surgical practice. This study demonstrates that the poor Man's NOTES technique can be used to successfully and safely resect adnexal masses up to 11 cm, using only reusable standard laparoscopic instruments and a low cost self-constructed single port device. This minimally invasive, and frugally innovative, technique also enables surgeons to perform adnexectomies without abdominal incisions, in low resource settings.

ES24-0329
Free Communication 14 All categories

Uterine Arteriovenous Malformation Inadvertently Treated by Hysteroscopy resection

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Background

Uterine Arterio-Venous Malformations (AVMs) are cause of potential severe genital hemorrhage. Acquired AVMs are considered iatrogenic and mainly diagnosed after pregnancy termination and/or uterine surgery. The diagnosis is based on Ultrasound (US), Computed Tomography (CT), Magnetic Resonance Imaging (MRI) and Angiography. Currently, uterine artery embolization or hysterectomy are the treatments of choice. Uterine curettage is not recommended for treatment of AVMs due to the risk of enhancing hemorrhage. Although hysteroscopy is the reference method for study of uterine pathologies, few reports described hysteroscopy features of AVMs. Herein we reported a case of one patient suffering from AVM treated by hysteroscopy, a treatment never reported in literature before.

Methods

A 52-years-old patient suffering from abnormal uterine bleeding, submitted to a cesarean section 29 years before, was scheduled to hysteroscopy resection of an endometrial mass. Trans-vaginal gray scale US detected an endometrial mass measuring 28 mm in largest diameter, suspected to be a fundal submucous myoma by saline infusion sonography. Hysteroscopy was carried out under conscious sedation by a 27Fr resectoscope fitted with 4mm bipolar loop.

Results

Rather than a myoma, hysteroscopy imaging was consistent with an endometrial polyp. The slicing of the mass was hampered by bleeding from a crowding of arterial and venous vessels; near the pedicle, a worsening of bleeding precluded the visualization and the intervention was interrupted. Bleeding control was obtained by the placement of a Foley catheter. The pathologic examination confirmed an arteriovenous malformation. One month later, US, CT and hysteroscopy showed no residual mass. Four months after intervention no vaginal bleeding complaints were recorded and normal findings were found at physical and ultrasound examination.

Conclusions

AVMs can present myoma-like or polyp-like features at US and hysteroscopy assessment, respectively. The application of Color Doppler investigation should be always considered when the clinical background couldn't safely exclude such rare but potentially life-threatening causes of uterine hemorrhage. The experience presented confirms the common belief that in cases of suspected AVM, primary endometrial surgical instrumentation such as D&C and even hysteroscopy resection should be avoided or managed with extreme caution, due to the high risk of uterine haemorrhage.

ES24-0198
Free Communication 14 All categories

Detection of Renal Functions by Neutrophil Gelatinase Associated Protein During Pnemoperitoneum in Laparoscopic Surgery

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Background

Pneumoperitoneum and trandelenburg position has negative impact on renal perfusion which might result in transient oliguria. Variable mechanisms were suggested to mediate the changes in renal hemodynamics during pneumoperitoneum. The extent of transient renal damage during pneumoperitoneum has not been clearly defined yet. A novel renal marker ‘Neutrophil gelatinase associated lipocalin’ (NGAL), has recently been investigated for detecting acute kidney injury (AKI) in clinical situations such as cardiac surgery. NGAL is excreted from the kidney and gives more accurate estimation of renal functions than creatinine. The aim of this study is to investigate if pneumoperitoneum together with trandelenburg position have any affect on renal functions that might be detected earlier by urinary NGAL levels.

Methods

Thirty two women at reproductive age undergoing laparoscopic surgery with variousgynecological indications were recruited into the study. Blood cystatin levels as well as blood urinary nitrogen (BUN) and creatinine levels were studied before the operation. Exclusion criteria were renal failure, cardiovascular disease, hypoxic-ischemic vascular disease, conversion to laparotomy, any serious complication during surgery, heavy bleeding, venous gas embolism and need for transfusion. Urine samples for NGAL were collected at 0, 2 and 24th hours postoperatively. The duration of pneumoperitoneum and trandelenburg position was recorded as well as the operation and anesthesia time.

	Mean (±SD)	Median (Min-Max)
Age (years)	33.7 (±8.3)	34.5 (18-54)
Height (cm)	164 (±4.8)	165 (150-170)
Weight (kg)	68.1 (±9.5)	67 (54-90)
BMI (kg/m^2)	25.3 (±3.8)	24.6 (19.1-37.5)
Duration of anesthesia	76.7 (±40.3)	62.5 (30-212)
Duration of pneumoperitoneum	52.8 (39.1)	40.5 (10-180)
Duration of trandelenburg position	49.2 (±36.4)	36.5 (6-150)

Results

Demographic data of patients and duration of surgery, pneumoperitoneum and trandelenburg position in minutes, are summarized in table 1. Most common indications were diagnostic and ectopic pregnancy. Baseline renal function was normal and estimated glomerular filtration rates calculated with cystatin, were normal (mean eGFR=114.5). The decrease in urinary NGAL levels was non significant (p=0.968). No significant change in blood creatinine levels (0.66 vs 0.65; p=0.540) were observed but a significant decrease in BUN levels were observed at 24 hours (9.75 to 8.10 mg/dl, p=0.003).

Conclusions

Creatinine is not a sensitive predictor for acute kidney injury as it varies with gender, diet, exercise, muscle mass. Creatinine is a delayed and unreliable indicator of kidney injury. NGAL is a promising new marker able to identify tubular and other locations of kidney damage much earlier than creatinine. Moreover, NGAL assay is able to detect patients with only subclinical and modest renal damage which might not be detected by routine renal function tests like GFR and creatinine. During pnemoperitoneum renal perfusion pressure increases and the kidney flow decreases slightly but no detrimental effect of pneumoperitoneum and trandelenburg position was observed on renal functions detected by NGAL levels.

ACCEPTED ABSTRACTS FOR VIDEO PRESENTATIONS (75)

ES24-0030
Complications in Surgery + Endometriosis + Laparoscopic Surgery

Urinary Tract Complications and Repair Strategies in Total Laparoscopic Hysterectomy

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Background

According to published studies, the frequency of the urinary tract complications is higher in total laparoscopic hysterectomy (TLH) than in abdominal total hysterectomy. The aim of this study is to clarify the cases with the urinary tract injury in TLH, and to review strategies repairing urinary tract complications.

Methods

All 1107 women who underwent TLH in our department at our institute from April 2011 to June 2013 were included in this study.

Results

In 4 cases (0.36%), the ureter was injured. In 2 cases (0.18%), the bladder was perforated. In 7 cases (0.63%), the bladder muscle layer was injured. In the video, I will present some cases with urinary tract complications and how to the complications were managed. During the study period, no cases needed a conversion to laparotomy or needed to reoperation to repair urinary tract complications.

Conclusions

It is most important that we do not cause urinary tract complications. For this purpose, it is necessary to understand the steps that can easily cause urinary tract damage. Also, it is important to check the margin of the bladder and the ureter course and to separate the right surgical plane. If a urinary tract complication occurs, appropriate manipulation can prevent a conversion to laparotomy and reoperation. Depending on the location and degree of damage, we were able to manage complications by inserting a stent into the ureter, performing end-to-end anastomosis and performing ureteroneocystostomy along with other interventions.

http://player.vimeo.com/video/126998011?autoplay=1

ES24-0186
Complications in Surgery + Endometriosis + Laparoscopic Surgery

Management of Complications of Laparoscopic Gynaecological Operations - a Video Presentation

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Background

Lesions of the bladder, the ureter, the rectum and bleedings from major vessels are severe intraoperative complications which can occure during laparoscopic operations in Gynaecology.

As Laparoscopic Surgery gains more and more interest worldwide, Gynaecologic Surgeons should be able to manage these complications by themselves.

Methods

This video shows four major complications of pelvic surgery and how they can be managed laparoscopically:
Intraoperative bladder lesion during laparoscopic sacrocolpopexy with reconstruction of the bladder, intraoperative accidental ureteral transection during adnexectomy and laparoscopic reconstruction and reanastomosis of the ureter. Further the video shows a rectal injury during laparoscopic sacrocolpopexy with rectal reconstruction and an intraoperative severe bleeding by injury of the external iliac artery during laparoscopic lymphonodectomy with laparoscopic suturing of the bleeding vessel.

Results

All of these complications could be treated successfully by laparoscopy with full recovery of the patients.

Conclusions

The video focusses on the reconstructional technique and could help younger collegues to improve their knowledge about complication management.

http://player.vimeo.com/video/128143645?autoplay=1

ES24-0345
Complications in Surgery + Endometriosis + Laparoscopic Surgery

Laparoscopic Adhesiolysis of Severe Adherences After Caesarean Section

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Background

In 2008, a cochrane review was published about evidence based operation methods for caesarean section. The Joel-Cohen-based technique should be recommended due to less fever, pain and analgetic requirements, less blood loss, shorther surgery and hospital stay. However, information on longterm morbidity as adherent placenta or scar rupture were not included.

An increase in ectopic pregnancies in the casarean scar have been published, and longterm problems with niche (isthmocele) have been described. We have experienced an increase in young women with chronic pain starting shortly after caesarean section, often repeated or emergency, with severe adherences between the uterus, bladder and the abdominal wall.

Methods

To diagnose adherences is difficult: We have seen 10 consecutive young women having urinary problems with little volumens, pain after training sessions using the abdominal rectus and obliques muscles, and dyspareunia. They often have daily pain in the postoperative period after the caesarean, but the pain never entirely disappear. Some are discovered years after the caesarean, as some pains after surgery in generally have been anticipated.

At the gynecological examination, we have suspicion of adherencies when the the cervix is not easy to find, overwhelmingly well suspended up behind the pubic bone, and uterus is fixated to the abdominal wall. At the ultrasound, uterus is bended, with the niche at the former uterotomi fixated to the bladder. Sometimes the bladder is trapped down in the niche as well, and a echogenic area is seen were the adherences are from the front of the uterus to the bladder/abdominal wall.

Results

We would like to present a video (3 minutes and 24 secunds) showing the laparoscopic adhesiolysis, with use of hemostatic and anti-adhesiolytic medical devices, in a patient with an initial bladder volume of 70ml at urogynecologic examinations. We performed the laparoscopic adhesiolyses after 10 month with thorough urogynecological examinations, 5 years after the caesarean. One year postoperatively she is still having normal voiding with normal volumes and sleep through the night.

Conclusions

First, further studies on long term complications after caesarean section might be warranted, and we have initiated a longterm registry study on longterm complications after casarean section and hysterectomy.
Second, we would like gynecologists to be aware of these possible long term pain and voiding problems after caesarean. Third, it should be acknowledged that adherences emerged after laparotomi, might be corrected by laparoscopy using hemostatic and antiadhesiolytic medical devices with pain relief as result.

http://player.vimeo.com/video/129982168?autoplay=1

ES24-0107
Complications in Surgery + Endometriosis + Laparoscopic Surgery

Laparoscopic Surgery for Recurrent Deep Infiltrating Endometriosis Involving Pelvic Sidewall

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Background

Extensive DIE (deep infiltrating endometriosis) excision procedure remains to be the most challenging LSC (laparoscopic) GYN surgery. When DIE lesions are so extensive that invade the pelvic sidewall, causing sclerosis and fibrosis of retroperitoneal structures (including ureter, nerves, vessels, and sometimes even the sidewall muscles), they will induce serious clinical problems, including obstructive uropathy (hydroureter, hydronephrosis), vascular collapse and subsequent deep vein tromobosis, lymph-edema, and severe pain or even neurological sequela. Medical treatment is of no use, and complete surgical excision is the treatment of choice. Surgical treatment for recurrent pelvic DIE lesions after previous radical excision is an even more challenging task than the primary DIE surgery, since: (1) all the virgin retroperitoneal spaces that can be taken advantages had already been dissected before, and had become fibrotic; (2) bizarre and unusual adhesions frequently develop, due to the previous surgical process; (3) Deeper structures at the pelvic sidewall (including ureters and vessels), and the GI tract are frequently seriously involved. In this video, we will demonstrate the difficulties, the dangers, and the approaching strategies for this kind of very difficult and risky cases.

Methods

Videos from cases with lateral wall DIE lesions (involving ureters, vessels, nerves, and even sidewall muscles) were collected, and edited.

Results

Radical excision for lateral DIE lesions possess some technical difficulties.
1. Since most of the retroperitoneal spaces (incuding rectovaginal space, perirectal space, pararectal space, paravesical space) were already sclerotic or fibrotic, development of these spaces and restoration of normal pelvic anatomy may be very difficult. Blunt dissection should be more forceful, and sharp dissections are more demanded. Electrosurgery should be kept minimally. Risks of organ injuries increase.
2. Massive bleeding from avulsed vessels is more frequently encountered. Good hemostatic instruments, good suture tehnique and skills for hypogastric artery ligation are mandatory.
3. Ureterolysis is much more difficult. Ureter blood supply are frequently compromised, and ureter stricture are frequently encountered. Ureter stent, with /without uretero-ureterostomy (anastomosis) or even ureteroneocystotomy, and omentum flap are the necessary procedures.
4. Preservation of the pelvic nerves (hypogastric nerve, splanchnic nerve) although sometimes feasible, and almost impossible.

Conclusions

Radical excision for lateral DIE lesions is very difficult and risky. Pre-operative patient conselling should include the possibility of the surgical risks (including bleeding, and organ injury), the necessity of ureter stenting, and the potential sequeals of pelvic nerve destruction. This kind of surgery should only be performed in experienced hands with adequate equipment and backup.

http://player.vimeo.com/video/130027723?autoplay=1

ES24-0239
Complications in Surgery + Endometriosis + Laparoscopic Surgery

Combined Vaginal-laparoscopic-transanal Approach in Large Deep Endometriotic Nodules

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Background

Study objective: To report a combined triple approach of vaginal excision, rectal shaving using plasma energy, deep nodule removal and transanal disc excision suitable in deep rectal endometriosis responsible for large posterior vaginal involvement.

Methods

The movie presents the procedure performed in a 28 year-old nullipara referred with a symptomatic large endometriotic nodule infiltrating the whole posterior vaginal fornix and the anterolateral wall of the mid rectum. Infiltration of the vagina measured 40 mm-diameter and that of the rectum 20 mm in diameter. The first step is vaginal and requires the excision of the vaginal involvement using plasma energy. Then, laparoscopic rectal shaving is performed using plasma energy. Third, disc excision of rectal shaved area is excised using the end-to-end anastomosis circular stapler. When lower and mid rectum is involved, large disc excision can be performed using the Contour Transtar® stapler.

Results

In this patient, immediate postoperative outcomes were uneventful, and bowel movements were normal beginning at day 4. A combination of three different routes and the use of an instrument with no lateral thermal spread may allow for more conservative surgery and increase the chances of favourable postoperative rectal and bladder functional outcomes. To date, 15 patients with vaginal infiltration exceeding 30 mm were managed by this technique with favorable outcomes.

Conclusions

The combined triple approach is feasible in rectal endometriosis responsible for large vaginal involvement and may reduce the risk of unfavorable outcomes related to colorectal resection and excessive vaginal excision.

http://player.vimeo.com/video/129539509?autoplay=1

ES24-0290
Complications in Surgery + Endometriosis + Laparoscopic Surgery

Ureteral Endometriosis: a Case Report Involving Laparoscopic Nephrectomy.
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Background

Endometriosis lesions are predominately found in the pelvis but may be present anywhere in the body. Ureteral endometriosis is rare. Despite bladder endometriosis usually causes urinary discomfort, ureteral endometriosis is often asymptomatic. Ureteral involvement is often limited to one ureter, commontly the left, and can lead to urinary tract obstruction, ureterohydronephrosis and loss of renal function.

Methods

The video illustrates the case of a 36-year-old nulliparous woman who complained of disabling dysmenorrhea, occasional dyspareunia and dysquezia refractary to medical treatment. She also complained of urinary discomfort but not dysuria with menses.

The physical examination revealed tenderness when palpating the posterior vaginal fornix and posterior cul-de-sac.

A transvaginal ultrasonography was performed showing a hypoechoic area in left adnexa. The MRI revealed the presence of a node infiltrating left uterosacral ligament, pouch of Douglas, rectal anterior wall and left ovary.

The patient underwent a laparoscopic surgery during which an endometriotic nodule was found involving parametrium and left ureter. Ureterolisis was performed showing left ureter dilated. Surgery was interrupted with the aim of study left renal function.

The CT scan revealed left side hydroureteronephrosis with obstruction of the ureter at parametrium level. Isotope renogram highlighted 21% function in that kidney.

Due to the decreased functionality of the kidney and persistent pain, she was offered a nephrectomy by laparoscopic approach. Careful and complete laparoscopic resection of all visible endometriosis was undertaken (left parametrectomy) with a nephrouretectomy. A rectal discoid resection was performed and rectal mucosa was closed with intrerrupted 3/0 resorbable sutures.

Results

The patient was discharged on the 7th postoperative day. A CT performed two months after surgery revealed normality.

Conclusions

Misdiagnosed ureteral endometriosis can induce renal atrophy and functional loss. Laparoscopic approach is feasable when performed by an skilled laparoscopic team. An accurate diagnosis of the disease shoud be performed in order to avoid intraoperative surprises.

http://player.vimeo.com/video/130209894?autoplay=1

ES24-0355
Complications in Surgery + Endometriosis + Laparoscopic Surgery

Laparoscopic Resection of Bladder Endometriosis Nodule

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Background

To present a case of bladder endometriosis nodule in a young patient with severe dysmenorrhea and urinary symptoms.

Methods

The standard laparoscopic approach is highlighted: the development of the paravesical fosae, the disection of the vesico-vaginal space, the detachment from the parietal peritoneum. The bladder is opened and the penetration of the mucosa is evaluated. The nodule is completely resected and the bladder is sutured in 2 layers. The tightness is verified using blue dye. The two double J ureteral stents are removed by cystoscopy and the suture is inspected.

Results

Succesfull surgical outcome with complete resection of the nodule.

Conclusions

Bladder endometriosis should be considered in women of reproductive age who present with urinary tract symptoms not responding to routine medical management and adequate laparoscopic treatment should be applied.

http://player.vimeo.com/video/129986213?autoplay=1

ES24-0408
Complications in Surgery + Endometriosis + Laparoscopic Surgery

Ariadne's Thread… A Case of Endometriosis

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Background

Endometriosis is a common yet poorly understood condition affecting one every ten women of reproductive age. The severity of symptoms in endometriosis depends largely on the location as well as on the extent of the ectopic implants and the organs involved. Often however the extent of the disease is completely disproportional with the presenting symptoms. According to ASRM, classification there are four stages of endometriosis (I-minimal, II-mild, III-moderate, and IV-severe) depending on location, extent, and depth of endometriosis implants; the presence and severity of adhesions; and the presence and size of ovarian endometriomas. Most women have minimal or mild endometriosis, which is characterized by superficial implants and mild adhesions. Moderate and severe endometriosis is characterized by chocolate cysts and more severe adhesions. The stage of endometriosis does not correlate with the presence of or severity of symptoms; yet it is very uncommon to present with no symptoms at all in cases of severe disease. The aim of this study is to describe a case of totally asymptomatic severe endometriosis.

Methods

A 25 G0P0 WF presented with a 5 cm asymptomatic adnexal mass diagnosed during random check-up five years ago. A presumptive diagnosis of endometrioma was made and she was treated with OCs. During follow-up with there was an increase in the size of the mass on serial ultrasound examinations. Eventually she underwent laparoscopic surgery.

Results

During laparoscopy the presence of a right endometrioma was revealed and excised. In addition superficial endometriotic implants were documented covering almost all the peritoneal surfaces on the abdominal wall as well as the bowel mesentery in the pelvis as well as in the upper abdomen.

Conclusions

The current case supports the notion that extensive endometriosis could be present in the absence of any symptoms. The poor correlation between the severity and the extend of the disease confirms the absence of a staging system that can precisely describe every endometriosis case.

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ES24-0449
Complications in Surgery + Endometriosis + Laparoscopic Surgery

Deep Infiltrating Endometriosis: a Case Report

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Background

Deep endometriosis is defined as the presence of endometrial tissue outside the uterus inducing an inflammatory reaction. It usually involves rectovaginal septum, vagina, rectum, bladder, ureters, uterosacral ligaments but that may be present anywhere in the body. Intestinal endometriosis affects between 6 and 30% of cases of deep infiltrating endometriosis and although ureteral involvement is uncommon, affecting 10-14% of women with endometriosis, it is important to treat it because the silent loss of renal function is a late consequence of ureteral affection.

Methods

This video illustrates the case of a 45-year-old nulliparous woman with surgical history of cystectomy for endometrioma 8 year earlier that complained of disabling dysmenorrhea, dysquezia, dispareunia and difficulty in defecation refractary to medical treatment. She also mentions about left kidney damage.

The vaginal examination evidenced Douglas, vagina and left parametrium involvement with consequent low mobility.

A transvaginal ultrasonography was performed showing a left ovarian endometrioma and endometriosis foci in parametria and Douglas, anterior compartment and bladder wall. The MRI and the CT scan revealed extensive deep involvement and an ileocecal implant which was the cause of distal ileum stenosis and subocclusion. Left chronic hydronephrosis secondary to distal ureteral entrapment was also revealed as well as the renogram confirmed the functional annulment of left kidney.

Results

Due to the disabling symptomatology a laparoscopic surgery was performed showing uterine adenomyosis with committed mobility, right and left ovaries involving caecum and uterine horn respectively and an endometriotic nodule in vesicouterine excavation. Histerectomy and uterosacral ligaments exeresis were performed as well as bilateral adnexectomy left parametrectomy and careful and complete laparoscopic resection of all visible endometriosis. We also performed an ileocecal and rectosigmoid resection and left nephrouretectomy and partial cystectomy due to the renal functional impairment. The surgery was carried out by a multidisciplinary team composed by urologists, gynaecologists and surgeons. On the 8th postoperative day the patient was discharged without complications.

Conclusions

It is well known that endometriosis is not simply a local disease, but rather a chronic, multifaceted process and its treatment means a challenge where we must work with an skilled laparoscopic team in order to improve quality of life and to avoid chronic and advanced stages. An accurate diagnosis of the disease is essential.

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ES24-0451
Complications in Surgery + Endometriosis + Laparoscopic Surgery

We Describe a Laparoscopic Approach to a Right Ureteral Obstruction Near Its Bladder'S Entrance Secondary to Endometriosis Associated with Ureterohydronephrosis and Kidney'S Function Impairment

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Background

Hydronephrosis secondary to endometriosis is a misrecognized disease that can lead to serious complications, such as silent loss of renal function. Ureteric endometriosis is infrequent. The reported prevalence is less than 1%. It is usually unilateral and seen on the left lower one-third of the ureter. It is usually associated with deep infiltrative endometriosis elsewhere in the pelvis. The optimal surgical procedure for ureteric endometriosis is unclear. Current procedures include ureterolysis, ureteroneocystostomy,and segmental resection with end-to-end anastomosis.The use of laparoscopy when performing these procedures is also controversial.

Methods

We report a case of a 35 years old woman with complains of lumbar pain, dysmenorrhea, dyspareunia, dysquezya and severe dysuria. No hematuria was reported. The MRI and the Uro-CT revealed an ureteral obstruction on the lower third of right ureter associated to an endometriotic nodule involving the right parametrium.

Results

The both right paravesical and pararectal spaces were opened with bilateral identification of the ureters. It was necessary to isolate the right uterine artery and separate it from the ureter. The area around the ureter entrance was infiltrated by the disease. The endometriotic nodule was carefully removed.

Conclusions

Laparoscopic approach to parametrial endometriosis associated with extrinsic ureteral compressio is feasible and probably a better option due to the offered magnified vision allowing a finer dissection and a better hemostasis.

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ES24-0454
Complications in Surgery + Endometriosis + Laparoscopic Surgery

Laparoscopic Pectopexy Using an MRI Visible, Narrow, Needled, Mesh Sling with a Reusable Tunnelling Device for the Treatment of Complex Pelvic Organ Prolapse

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Background

Surgical treatment for pelvic organ prolapse (POP) underwent significant changes in recent years. The traditional vaginal hysterectomy does not address the underlying pathophysiology of poor connective tissue support, which may result in a higher incidence of recurrence. Vaginal meshes that were used extensively were simplified to mesh kits and following the FDA warnings regarding their safety, they have been widely abandoned. A change in practice patterns among urogynecologists has been noted reviving the use of sacropexy.

Abdominal sacropexy is considered the “gold standard” in POP surgery. It is associated with high success rates of over 90% with low recurrence rates. The laparoscopic sacropexy seems to achieve similar success rates in addition to having advantages of less blood loss, reduced morbidity, and a shorter hospital stay.

Nevertheless, complications such as new onset bowel, voiding, and sexual dysfunction, de-novo stress incontinence, obstructed defecation syndrome and mesh erosion after sacropexy have been reported and may have a negative effect on patient's satisfaction.

Recently, a new laparoscopic surgical procedure, pectopexy, for apical support has been introduced. Is seems to have good outcomes and some advantages over sacrocolpopexy. Specially, a higher fixation point of the vaginal apex, could benefit patients with complex POP, obese patients and those with a higher risk for pelvic and bowel adhesions.

One of the greatest technical challenges in performing this procedure is creating a sub-peritoneal tunnel for the mesh. Optimizing the procedure in order to obtain better anatomic reconstruction and choosing the material according to its biomechanical characteristics are a challenge that surgeons are faced with in an attempt to minimizing mesh-related complications.

Methods

We combined footage from surgery, anatomical lab, models, animations and ultrasound and MRI imaging in order to create this video depiction this unique laparoscopic pectopexy using an MRI visible narrow, needled, mesh sling with a reusable tunnelling device.

Results

This video article demonstrates a novel technique to perform laparoscopic pectopexy for women with complex POP using clockwise and counter clockwise reusable helical tunnelling devices and an MRI visible narrow, macroporous monofilament, mesh sling with a needle at its end.

Conclusions

This novel procedure shows great promise in the treatment of complex POP. This procedure apart from having the advantages of a minimal invasive surgery, is easy to learn, easy to perform, has shorter operating time, has a minimal mesh area reducing the risk of erosion and is MRI visible. This new technique may be used for young patients wishing to preserve the uterus as well as for older patients following hysterectomy.

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ES24-0018
Laparoscopic Surgery

Laparoscopic Myomectomy with Enclosed Transvaginal Tissue Extraction Via Posterior Colpotomy

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Background

Electromechanical morcellation is increasingly discouraged because it can disseminate benign and potentially malignant tissue within the peritoneum. The objective of this video is to demonstrate successful transvaginal morcellation of fibroids after laparoscopic myomectomy utilizing a containment system.

Methods

A video demonstration of this technique.

Results

The patient's uterus had two myomas: a 4 cm pedunculated myoma and a 5 cm intramural myoma. The myomas were laparoscopically removed and the uterus repaired. A posterior colpotomy was created with a transvaginally placed 10-12 mm port. The myomas were placed in a durable nylon-polyurethane endoscopic bag, and the opening of the bag was brought through the posterior colpotomy. The myomas were then morcellated with a scalpel within the endoscopic bag and extracted transvaginally.

Conclusions

The technique of manual morcellation within an enclosed specimen bag avoids intraperitoneal dissemination of tissue associated with electromechanical morcellation. Extraction through a posterior colpotomy uses a natural orifice and results in less pain and good cosmesis.

http://player.vimeo.com/video/125526828?autoplay=1

ES24-0021
Laparoscopic Surgery

Laparoscopic Repair of Uterine Scar Dehiscence After Cesarean Section

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Background

This video shows Laparoscopic repair of uterine scar dehiscence after cesarean section.

Methods

This 32y old female was admitted for “Postmenstrual abnormal uterine bleeding after cesarean section for 3 years”. She had a prolonged period for more than 14d every month. MRI showed the presence of a reservoir-like pouch on the anterior wall of the uterine isthmus at the site of a previous cesarean delivery scar. And she underwent laparoscopic repair of uterine scar dehiscence.Firstly the bladder is mobilized inferiorly over the cervix. Then hysteroscopy was done, and an antetior pseudocavity was found at the level of the dehiscence. The scar is excised laparoscopically. And the lateral wall and the inferior edge of the pseudocavity was total excised. A running suture using delay absorbable material closed the scar. An additional mattress suture completed the closure of the scar.

Results

After surgery, the period of the patient shortened to 7 days, and MRI showed that the pouch on the anterior wall of the uterine isthmus was disappeared.

Conclusions

Laparoscopic surgical repair of the defect is feasible and effective.

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ES24-0037
Laparoscopic Surgery

A Novel Approach to Maintaining Pneumoperitoneum at Total Laparoscopic Hysterectomy

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Background

A Novel approach to maintaining Pneumoperitoneum at Total Laparoscopic Hysterectomy

Introduction

During Total Laparoscopic Hysterectomy diathermy is used to circumferentially cut around the uterine manipulator cup. It is at this stage in the procedure CO2 can be lost. It is suggested in the literature this can be maintained by pulling the uterus into the vagina or by placing a glove inside the vagina.

We have developed a fluid filled "donut" which can be placed inside the vagina following insertion of the uterine manipulator. This maintains pneumoperitoneum at the time of removing the uterus and cervix from the vagina. Once the specimen has been removed the "donut" can then be reinserted to seal the lower vagina while suturing takes place in order to avoid ongoing loss of CO2.

Methods

Material and Method

The following equipment is required:

- condom
- silastic foley catheter N14
- 60ml syringe
- suture material for tying - we use silk 0/2
- Sterile water

Results

1. The catheter is inserted inside the condom (3-4 cm of the catheter tip should be placed just inside the condom).
2. Suture material is used to tie a knot about 1cm from the end of the condom so it is fixed to the catheter.
3. The tip of the condom should be then be placed alongside the above knot.
4. The tip of the condom is then tied in place using the suture material forming a donut.
5. The integrity of the donut should be checked by filling it with 60ml of sterile water via the catheter. This can then be removed again prior to insertion. This is then deflated.
6. Following insertion of the uterine manipulator the donut should be threaded over the handle of the manipulator and pushed up the vagina close to the blue cup of the V-care.
7. Prior to excising the cervix the third assistant should inflate the donut with sterile water. (Donut can also be inflated in the beginning of the operation).
8. Following removal of the specimen the donut can be promptly replaced in the lower vagina to ensure ongoing pneumoperitoneum

Conclusions

Following introduction of the above technique we have found significant improvement in our ability to maintain pneumoperitoneum at TLH. This allows for efficient laparoscopy in order to maintain exposure. Prior to this we would be required to frequently change gas cylinders which would lengthen operation time.

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ES24-0066
Laparoscopic Surgery

Continuous Non-locked Suture for Vaginal Closure in the Total Laparoscopic Hysterectomy

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Background

The technique of vaginal closure in the total laparoscopic hysterectomy (TLH) is important to avoid dehiscence. Classically three or four figure of eight sutures are used to close the vagina. Continuous non-locked suture can be as good as the figure of eight sutures or even better for vaginal closure. We perform this technique in our patients with perfect results, as regard vaginal stump dehiscence. This video shows vaginal closure using a continuous non-locked suture that proved well against dehiscence.

Methods

Patients indicated for TLH received the vaginal closure through a continuous non-locked suture. Follow up for at least 6 months post operatively for all patients was performed.

Results

We operated in one year, 84 Patients using this technique. During the 6 months follow up period, we registered no vaginal stump dehiscence.

Conclusions

Continuous non-locking suture is appropriate for vaginal closure providing high safety level against vaginal stump dehiscence.

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ES24-0070
Laparoscopic Surgery

What to Do with Recurrent Prolapse After Vaginal Mesh Failure?

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Background

To show that in selected cases, laparoscopic sacrocolpopexy can be used for the treatment of recurrent pelvic organ prolapse after vaginal mesh surgery.

Methods

Step-by-step examination of the technique using an educative video.

Results

The authors describe two clinical cases of treatment of recurrent pelvic organ prolapse, after a vaginal mesh surgery, using laparoscopic sacrocolpopexy. A 56-year old patient (para 3, gravida 2) presented with the sentation of bulging in the vagina. On physical examination, the patient had a grade 2-3 vaginal apical prolapse and a stage 4 rectocele. She had a slight mesh contraction but no vaginal extrusion and no pain were reported. Eleven years before, she had a vaginal total hysterectomy for pelvic organ prolapse correction and one year before she had a vaginal prolapse repair using a synthetic mesh. A laparoscopic sacrocolpopexy with bilateral ooforectomy was performed. The second case is of a 54-year old patient (para 2, gravida 2) that presented stress urinary incontinence. On physical examination, the patient had a grade 3 uterine prolapse and grade 2 cystocele. Eleven years before she had a vaginal prolapse repair using a synthetic mesh and a miduretral sling for stress urinary incontinence. Two years before, she had the miduretal sling removed for recurrent urinary infections and dysuria. A laparoscopic sub-total hysterectomy with salpingectomy and ovarian conservation, sacrocolpopexy and a Burch colposuspension was performed. The procedures and postoperative recovery were uneventful. No minor or major complications occurred. The patients were discharged three days after surgery.

Conclusions

Laparoscopic sacrocolpopexy is a promising approach for the treatment of recurrent pelvic organ prolapse after vaginal mesh surgery. It appears to be feasible, safe and effective.

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ES24-0082
Laparoscopic Surgery

Laparoscopic Ablation of Infected Promontofixation Mesh

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Background

Demonstrate the case of late manifestation of infection of the mesh and possibilities of laparoscopic removal of it.

Methods

A case of a 76 year-old patient is reported, who was operated 12 years ago, underwent a subtotal hysterectomy with promontofixation by laparoscopy. She presented a 2 year history of malodorous and sanguinary vaginal discharges. An endocervical curetage proved the existence of actinomycetes. The preoperated MRI identified a periprothetic abscess running from cervix to promontory. No rectovaginal fistula was identified.

A laparoscopic removal of the mesh was decided suspecting a promontofixation mesh infection.

Results

Laparoscopy using Palmer's point insufflation and trocart in the left hypochondrium was performed. The absence of parietal adhesions was confirmed, however Douglas' pouch was filled with the sigmoid loop, which presented adhesions to the right pelvic wall. No peritonitis was found. Adhesiolysis was performed in order to approach the pelvis. The existence of a bulge in the dome corresponding to an abscess was notified; it was expanding from the bladder to the promontory and progressively there was a flow of purulent liquid from it. The mesh was identified and was completely removed, as well as the stitches that supported it. The dissection was hard to perform because of the inflammation and bleeding was difficult to control. Especially at the level of promontory the anatomical structures could hardly be identified, but in spite of that, dissection was successfully carried out. The patient had a good post-operative recovery under antibiotic and analgesic treatment and was discharged 5 days later. The microbiological analysis of the mesh, proved the existence of pseudomonas aeruginosa. In the postoperative consultation after two months the patient was completely symptom-free.

Conclusions

Laparoscopy offers good possibilities not only for the performance of colpopexy, but also for the treatment of complications and the removal of the infected mesh.

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ES24-0105
Laparoscopic Surgery

Robotic Laparoscopic Lysis of Severe Abdominal Adhesion Including Small and Large Bowel

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Background

Robotic laparoscopic lysis of extensive small and large bowel adhesion can be accomplished safely. This has a faster post-operative recovery and much earlier date to resume her regular daily activities and earlier date to return to work.

Methods

The use of hydrodissecion, traction and counter traction method definitely facilitates the bowel dissection. A monopolar hot sheer was used in this procedure. Visualization of the organs on all sides before dissection or cutting the adhesions bands is essential. Pre-operative bowel preparation is necessary in case bowel resection or bowel repair might be needed. There was injury to the small and large bowel in this case presented.

Results

Patient had sluggish bowel sounds for three days post-operatively. Patient experienced no chronic constipation and no pelvic pain post-operatively.

Conclusions

Patients with extensive small and/or large bowel adhesions can be performed on safely with the use of the Robotic system. The post-operative recovery and the date of returning back to work is 1-2 weeks instead of 4 weeks after exploratory Laparotomy surgical procedure.

http://player.vimeo.com/video/127735655?autoplay=1

ES24-0109
Laparoscopic Surgery

Laparoscopic Resection of 16 Week Pregnancy in a Rudimentary Uterine Horn

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Background

Rudimentary horn pregnancies are rare and are at high risk of uterine rupture. The standard management is complete resection of the rudimentary horn and ipsilateral salpingectomy. There are several case reports of first trimester rudimentary horn pregnancies managed laparoscopically. However, to date, there are only 3 case reports of second trimester rudimentary horn pregnancies excised laparoscopically. In this video we present the case of a 27 year old woman with a 16 week 4 day pregnancy in a rudimentary uterine horn.

Methods

The diagnosis was made with MRI imaging. Informed consent was obtained. The patient underwent laparoscopic left rudimentary uterine horn resection and left salpingectomy.

Results

The patient was placed in dorsal lithotomy position. The abdomen was entered and insufflated at Palmer's point to avoid perforation into the rudimentary horn. The primary instrument used to coagulate and cut was the Gyrus ACMI® HALO PKS Cutting forceps. Dilute vasopressin was injected into the fibrous band connecting the rudimentary horn to the unicornuate uterus to decrease blood loss. The estimated blood loss was 50 ml. The specimen was mechanically morcellated and removed by extending the left lower quadrant port site incision.

Conclusions

Second trimester rudimentary horn pregnancies can successfully be managed laparoscopically. Use of dilute vasopressin significantly reduces blood loss during the surgery. Morcellating the specimen within a contained system may obviate the need for a mini-laparotomy.

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ES24-0111
Laparoscopic Surgery

A Case of a Recurrent Right Iliac Lymphocele Treated by Laparoscopic Resection and Plasmajet Vaporization.

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Background

The incidence of lymphocele after lymph node dissection remains high (20 to 30 percent). The vast majority of lymphocele are asymptomatic but clinical symptoms occur in 5 to 10 percent of all patients. In symptomatic lymphocele, non-surgical conservative treatment is the first line treatment. In case of recurrence, there is no standardized surgical approach. We report a case of a recurrent right iliac lymphocele treated by laparoscopic resection and Plasmajet vaporization.

Methods

We describe the surgical approach of a 57 years old woman presented with severe right leg edema approximately 10 years after a radical hysterectomy and a bilateral pelvic lymph node dissection performed by laparotomy for cervical cancer. CT scan demonstrated a 7 centimeters right iliac lymphocele. After the failure of a CT scan guided puncture, we decided to perform a laparoscopic resection of this lymphocele. A careful inspection revealed a voluminous right pelvic lymphocele. The lymphocele was adherent to the external iliac vessels and the ureter.

Results

Firstly we removed the adhesions between the lymphocele and the small bowel. We located the ureter and started dissection of iliac vessels to perfectly determine their location. The anterior part of the lymphocele was resected. The remaining posterior part of the lymphocele including iliac vessels and ureter was left in place. This remaining part was treated by vaporization using plasmajet. The use of this energy allows a complete and safe treatment of the lymphocele. Coagulation using monopolar energy or bipolar energy seems hazardous in this kind of situation where the perfect location of ureter and vessels are not possible.

Conclusions

This patient had a lymphocele including both iliac vessels and ureter. In case of symptomatic lymphocele, even if complete dissection and resection is impossible, surgical management can be performed by laparoscopic approach, with the use of Plasmajet vaporization. It allows a fast and safe treatment of unresectable parts.

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ES24-0119
Laparoscopic Surgery

Ruptured Tuboovarian Abscess in the Presence of a Dislocated Intrauterine Device

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Background

Rupture of tuboovarian abscess (TOA) is one of the life-threatening gynecological emergencies. Management of TOA includes broad-spectrum antibiotics and surgical intervention is required in 25%of the cases (1). Intraabdominal foreign object like an intrauterine device (IUD) is a predisposing factor for TOA. Here we present a case of ruptured TOA in the presence of a dislocated int

Methods

Our case was a 33 year-old woman who was hospitalized in our gynecology clinic with complaints of fever, nausea and vomiting, anorexia and pelvic pain. The physical examination revealed abdominal tenderness, rebound tenderness and involuntary guarding while leukocytosis and elevated sedimentation and C - reactive protein was found in laboratory parameters. The patient had a history of intrauterine device insertion 7 years ago. From the patients previous records, it was found out that IUD was diagnosed to be dislocated one year ago and diagnostic laparoscopy was performed; IUD was seen adherent to intestines therefore extraction was not possible and IUD was left in place. Antibiotic regimen of metronidazole and ceftriaxone was chosen and emergency surgical intervention with diagnostic laparoscopy was decided.

Pneumoperitoneum was created with Verres needle and an infraumbilical 10-mm trocar was inserted. Side-trocars; one 5-mm and one 10-mm trocar were inserted from right lateral region after visualization of extensive intraabdominal adhesions on the left side. Conglomerated and adherent left tuba, ovary and intestines and intraabdominal purulent material due to ruptured abscess was present in exploration. Conglomerate of left pyosalpinx was excised following dissection of intestinal adhesions. Dislocated intrauterine device was found in the conglomerate of TOA. Operation was terminated after the placement of drains.

Results
Conclusions

Dislocated intrauterine devices may cause morbidity due to organ perforation and infection. Laparoscopic surgery is an alternative to open laparotomy also in difficult cases with adhesions with its lower intraoperative and postoperative morbidity rates in experienced hands. Adhesiolysis, surgical drainage, salphingooferectomy and hysterectomy is performed for management of TOA.

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ES24-0136
Laparoscopic Surgery

Skeltone Style Total Laparoscopic Hysterectomy with Colpotomy Cup.

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Background

Hysterectomy is the most frequently performed major gynecologic procedure in the world. This video demonstrates the technique of Total Laparoscopic Hysterectomy with the new viewpoint. The concept of Skelton-style total laparoscopic hysterectomy involves the release of the peritoneum and dissection of loose connective tissue in advance.

Methods

A uterine manipulator with a colpotomy cup was inserted into the uterus during surgical preparation.Two trocars on the left side and one trocar on the right side were placed. First, the anterior leaf of the broad ligament was incised toward the bladder and a bladder flap was started. The bladder flap was tented up by using a monopolar, and the bladder was gently dissected from the uterus. This ensured adequate visualization of the colpotomy cup. Second, the peritoneum overlying the pelvic sidewall was incised.Third, the posterior leaf of the broad ligament was incised. The peritoneum was opened, and the ureter and vessels were separated from the uterosacral ligament. The peritoneum and loose connective tissue were removed. Only the ligaments and vessels remained. The round ligament was cauterized and cut using advanced bipolar device. This ensured that the ureters were sufficiently lateral and in a safe position. The ascending branch of the uterine artery could then be ligated with sutures. The cardinal ligaments were cauterized and cut by using advanced bipolar device. Colpotomy was performed by using the monopolar device.

Results

The dissection of these tissues in advance would help in understanding that anatomy in that region, which, in turn, may reduce errors in the procedure. The separation of the dissection and cutting steps would reduce the need for switching the forceps.

Conclusions

Skeltone Style Total Laparoscopic Hysterectomy with colpotomy cup is not only safe but also efficient.

http://player.vimeo.com/video/127922294?autoplay=1

ES24-0202
Laparoscopic Surgery

Standardised Single-incision Laparoscopic Hysterectomy

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Background

The Single Incision Laparoscopy (SIL) method has gained growing importance in surgical procedures for various indications in gynaecology as well as other surgical disciplines.

Methods

We developed a standardized technique for SIL hysterectomies using a device which allows the insertion of 4 instruments through one umbilical port. We standardized the use of special instruments for each step of the procedure.

Results

Starting in 2012 until now, 36 SIL hysterectomies have been performed in our institution. No serious complications occurred. The procedure is reproducible and safe, limited to uteri which do not reach beyond the umbilicus.

Conclusions

We present an instructive video demonstrating the key steps for SIL hysterectomy. SIL hysterectomy is a safe and feasible procedure with the potential to increase both the patients' and surgeons' comfort and providing optimal cosmetic results.

http://player.vimeo.com/video/128568095?autoplay=1

ES24-0208
Laparoscopic Surgery

Laparoscopic Modified Presacral Neurectomy is a Simple, Safe, and Satisfiying Alternative Treatment for Central Dysmenorrhea.

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Background

Laparscopic presacral neurectomy(LPSN) is a procedure for chronic central pelvic pain done by minimal invasive method. It's a difficult and challenging procedures for most of the gynecologists. Laparoscopic modified presacral neurectomy(LMPSN) is an easier and safer alternative treatment.

Methods

LPSN require a large incision on the peritoneum overlying the sacral promontory. Surgeons had to remove the presacral nerves or hypogastric plexus and avoid injury to the vessels beneath the nerves and the right ureter, the laterla border of the dissection. Compared with traditional technique, the method remove the sympathetic pathway superior to the aortic bifurcation. Incising the peritoneum on the aortic bifurcation and identifying the hypogastric nerve bundles are easier and safer. This sugery was performed on a 30-year-old female with intractable dysmenorrhea for 6 years.

Results

This patient had no dysmenorrhea after the surgery. She had neither intraoperative complication nor immediate postoperative complications such as bleeding, ureteral injury, and poor bladder emptying . No long-term complication reported during 12-month follow-up.

Conclusions

LMPSN is relatively simple, safe, effective, and satisfiying method and is reserved as an alternative treatment for midline dysmenorrhea.

http://player.vimeo.com/video/128700071?autoplay=1

ES24-0209
Laparoscopic Surgery

Laparoscopic Management of Bladder Endometriosis

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Background

To demonstrate the standardized laparoscopic complete excision of bladder endometriosis procedure developed in our Center (Department of Urology and Obstetrics-Gynecology, CHR Citadelle, Liège, Belgium).

Methods

Bladder endometriosis is defined by the presence of stromal and epithelial endometrial cells invading the detrusor. About 2% of the women with endometriosis and 12,5% of patients with deep infiltrating endometriosis are concerned. Urinary symptoms are inconsistent.

Surgical management is the only long-term success option. Literature describes endoscopic resections, shaving and complete resection of the lesion.

Complete resection of the lesion is virtually impossible in case of endoscopic resection or shaving because of bladder perforation in the former and persistence of the mucosa and no visualization of the ureters in the latter.

Partial cystectomy avoids the disadvantages of the other techniques. Our procedure is safe and allows complete resection.

Results

Trocars are introduced classically and bladder is filled trough catheterization. The lesion is visually identified and palpated. However, it is always localized at the vesico-uterin junction. The bladder is incised medially and vertically above the endometriotic nodule. The lesion is visualized from inside of the bladder. Per-operative ureteral stenting is performed in case of close proximity with the ureteral orifices. The mucosa is incised circumcising the lesion. Complete excision is performed using monopolar scissors and coagulating small neo-vessels with bipolar forceps.

Attention should be drawn to avoid anterior vaginal perforation with the help of a valve. The bladder edges around the excision site are separated from the vagina and then sutured. Initial vertical cystotomy is closed using a simple running suture. Folley catheter is maintained for seven days and cystography is performed before its removal.

Conclusions

In hands of skilled surgeons, laparoscopic management of bladder endometriosis is possible. Attention should be drawn to the trigon and ureters orifices localization before performing the procedure.

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ES24-0214
Laparoscopic Surgery

Laparoscopic Management of Chemical Peritonitis Caused by Spontaneous Rupture of a Dermoid Cyst

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Background

Dermoid ovarian cyst is the most common benign ovarian tumour. They are often asymptomatic, however torsion is the most frequent complication. Spillage of cyst into the peritoneal cavity during surgery is common, but spontaneous rupture and posterior chemical peritonitis is extremely rare.We demonstrate a laparoscopic management of a chemical peritonitis caused by spontaneous rupture of a dermoid cyst.

Methods

We report a case of a 34 years-old female that came to the emergency presenting a 15 days history of right iliac fossa persisting pain and fever, without other associated symptoms. Two days before was treated with analgesics and antibiotics, in other centre, suspecting inflammatory syndrome (CRP:151mg/l). She provided a abdominal TC performed 15 days before revealing an 8 cm right ovarian dermoid cyst.Abdominal-pelvic ultrasound was performed confirming a 75x65x66 cm right ovarian mass, suggesting dermoid cyst.We decided to perform an exploratory laparoscopic approach, suspecting an ovarian torsion, to treat it, and in order to clarify the origin of the peritonitis.

Results

Laparoscopy using Palmer's point insufflation and an umbilical entry was done. Multiples adhisions, an 8 cm ovarian cyst and spillage of cyst contents in the cavity were found. Bowel loops and appendix integrity was verified. A peritoneal liquid sample, adhesiolisis, removal of the peritoneal contents, a cystectomy in a laparoscopic bag and a profuse lavage was performed. Pathologist's results informed of a mature teratoma cyst, and no presence of malignancy cells in the peritoneal liquid. The patient made a good post-operative recovery and was discharge 4 days later.

Conclusions

Chemical peritonitis is a rare condition that occurs secondary to a spontaneous rupture of a dermoid cyst, or after a surgery of that one. The laparoscopic approach is safe, efficient and the standard treatment of dermoid cysts and provides many advantages over the laparotomy

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ES24-0223
Laparoscopic Surgery

Polycystic Ovary Syndrome - the Cause of Adnexal Torsion in Adolescent Girl. (Case Report)

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Background

The incidence of adnexal torsion among women of all ages is 5.9 %, and the incidence among women of reproductive age (15−45 years) is 9.9 % .

Methods

A 15-year-old girl with a primary discovered ovarian cyst was admitted in our ob-gyn clinic by emergency service. Clinical presentation and ultrasound was suggestive for left adnexal torsion with ovarian cyst and medical history and physical examination suggest PCOS. Laparoscopy revealed a left ovary giant hemorrhagic cyst with ischemic adnexal torsion, adherent to sigmoid. We practiced left salpingo-oophorectomy, viscerolysis and pelvis drainage. The pathology report revealed a hemorrhagic cyst, ovarian parenchyma with multiple cystic cavities (PCOS) and venous and arterial thrombosis with adnexal infarction.
Postoperative, our patient met the diagnostic criteria for PCOS and evolution was favorable.

Results

Follow-up visit at 6 month, revealed that she was doing well, with normal menses after PCOS treatment. Torsion of the uterine adnexa is a gynecological emergency that requires quickly diagnosis and emergency surgical treatment. In adolescents with ovarian masses, physiologic ovarian cysts are most common, while ovarian neoplasms are relatively infrequent.

Conclusions

Adnexal torsion due to PCOS are starting to become an common finding in a female adolescent. Physicians should be aware of the clinical manifestations, complications, evaluation, and proper management of ovarian masses, particularly in patients who have or are suspected to have PCOS and who present with lower abdominal pain, increased abdominal girth and weight and palpable abdomino-pelvic mass. New advances in laparoscopy have made early recognition critical for ovarian and fallopian tissues salvage, especially in the reproductive population.

http://player.vimeo.com/video/129111868?autoplay=1

ES24-0229
Laparoscopic Surgery

Laparoscopic Repair of Pelvic-organ Prolapse: an Easy, Mesh Free Repair Technique.

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Background

To repair pelvic organ prolapse (POP), conventionally, we have performed a vaginal hysterectomy and anterior-posterior colporrhaphy. But after this traditional procedure, patients have difficulty with intercourse, because the vagina narrowed and shortened. To solve this problem, laparoscopic sacral colpopexy (LSC) became widely applied, but LSC requires a complicated technique. Several reports have also shown that there are some complications related to the synthetic mesh used in this procedure. The FDA warned about the usage of synthetic mesh in 2011. So we have introduced a laparoscopic repair for POP that does not require the use of mesh.

Methods

We will show 2 cases of our technique for POP. Initially, we separate ureters from sacrouterine ligament. A suture is placed in the sacrouterine ligaments so that they can be identified after the hysterectomy. Then we performed total laparoscopic hysterectomy. After the opening of the vaginal stump is reapproximated, one non-absorbable synthetic suture is used to stitch the left sacral ligament in a Z suturing fashion the suture is applied to the posterior fornix of the vagina and then this same suture is placed in the right sacrouterine ligament. Resulting in both sacrouterine ligaments and the vaginal stump coming together in the center of the pelvis. This method is a modification of the McCall operation. For cases with significant cystocele, we added an anterior-posterior vaginal repair before the modified McCall colposuspension procedure.

Results

We have performed 12 cases of this operation in total. Operation times were similar to a normal TLH. No complications occurred. No recurrence has occurred 1-8 years after both operations.

Conclusions

Important benefits of applying TLH with this modified McCall methods are that the vagina does not narrow. The operator needs no special techniques for the TLH. Patients record less pain after this technique compared to traditional vaginal repair. Complications associated with the usage of mesh can be avoided making this technique a useful alternative to the techniques, which are currently available.

http://player.vimeo.com/video/129435112?autoplay=1

ES24-0234
Laparoscopic Surgery

Ovarian Cystectomy Made Easy.

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Background

Ovarian cystectomy is usually required in patients of infertility, where the ovarian functionality needs to be preserved as much as possible during the surgery. The use of vasopressin to reduce the blood flow in the cyst or the ovary during surgery is a very simple yet very effective way to operate. Reduced bleeding helps to be able to identify the plane of separation of the cyst wall easily. It also reduces the need to use cautery or any energy source during surgery. This in turns avoid damaging the ovarian tissue and preserving the ovarian function.

Methods

Vasopressin is used in the diluted form as 10 units of vasopressin in 100 ml of normal saline. 10 ml of this solution is injected with a vasopressin injection needle into the broad ligament, with due caution not to inject in the vessels. Ovarian cystectomy is done. If required, the ovarian cut edges are approximated with a purse string suture to reduce the chances of post operative adhesions.The effect of vasopressin lasts for 20-30 minutes by which time the surgery is completed.

Results

There is almost nil or minimal blood loss during the cystectomy. The clean field helps to separate the cyst wall easily. Minimal use of cautery is required in the surgery, helping to preserve the ovarian function.

Conclusions

Ovarian cystectomy is made easy.

http://player.vimeo.com/video/129520108?autoplay=1

ES24-0238
Laparoscopic Surgery

Laparoscopic Hysterectomy for Very Large Uterus

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Background

This video shows a laparoscopic hysterectomy in a 41 year old primipara with a very large uterus weighing more than 2000g with history of vertical laparotomy.

The aim of this video is to describe the total laparoscopic hysterectomy technique in very large benign uterus using primary uterine devascularization, that we have already performed in a series of 20 women whose uterine weight ranged from 500 to 1,600 g.

Methods

The keys to a successful procedure are: the upward trocar sites which depend solely on uterus size, the complete devascularization of the uterus before any other surgical procedure is performed on the uterus, and its appropriate fragmentation which allows sectioning of the uterine pedicles close to the uterus, bladder dissection and decreases both the duration and difficulty of the vaginal stage. To these could be added the previous free-residue diet that further guarantees safety and peroperative convenience and the strong mobilization of the uterus by use of a uterine manipulator. The first stage, performed at the onset of the surgical procedure, is complete uterus devascularization, by coagulating both uterine arteries at the artery origin and infundibulo-pelvic ligaments or utero-ovarian vessels. The second stage of the laparoscopic hysterectomy involves reducing the volume of the uterus mainly by uterine morcellation, then following stages are similar to those described in the classical procedure.

Results

Successful laparoscopic hysterectomy in even enlarged uterus using such a technique.

Conclusions

This procedure avoids unexpected peroperative hemorrhage requiring conversion to the abdominal route and provides optimal protection for the ureter.

http://player.vimeo.com/video/129539621?autoplay=1

ES24-0244
Laparoscopic Surgery

Diagnostic and Intra-operative Challenges for Ovarian Ectopic Pregnancy, Including Ovarian Conservation

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Background

Up to three percent of ectopic pregnancies develop in the ovary, thought to be subsequent to fertilisation prior to ovulation, implantation on the ovarian surface or presence of endometriosis. They can be technically difficult to diagnose on ultrasound scan and may well be an unexpected finding at laparoscopy. There is some suggestion that the presence of an IUCD may be a pre-disposing factor and that they may be more likely when conception follows IVF treatment.

Methods

We show two cases of ovarian ectopic pregnancy, both diagnosed by pre-operatively on ultrasound and managed with conservation of ovarian tissue at University College London Hospital.

Results

Ovarian ectopics can bleed heavily. At laparoscopy, active haemorrhage can result in difficulty differentiating from tubal ectopics or corpus luteum. Laparoscopy may be falsely negative and there is a risk of mis-diagnosis leading to failed removal of the ectopic and inappropriate salpingectomy. Hence, pre-operative diagnosis by USS is invaluable If ovarian ectopic is suspected, operative difficulties can be anticipated and appropriate expertise made available

Conclusions

Ovarian ectopic usually occurs with ipsilateral ovulation, but these cases show the possibility of a contralateral corpus luteum. Ovarian conservation should be achievable in all cases. However, in the prescence of active haemorrhage, some ovarian tissue may have to be compromised, if unavoidable

http://player.vimeo.com/video/129922096?autoplay=1

ES24-0246
Laparoscopic Surgery

Three Reconstruction Methods After Segmental Resection of the Urinary Tract for Endometriosis.

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Background

Reconstructive techniques are necessary when performing radical gynecologic excision and allow the appropriate surgical margin to be maintained. We will describe techniques to deal with large urinary tract defects after radical excision of endometriosis.

Urinary tract endometriosis is not a common disease but can result in pain, infertility and silent loss of renal function if undetected. As the goal must be to remove all affected tissue, radical resection presenting potentially invasive surgery is required. Our minimally invasive approach using laparoscopy can make such a radical procedure patient friendly.

Methods

Case one presented with extensive bladder endometriosis near the right ureteral orifice requiring extensive resection of the bladder and extravesical ureteral reimplantation as reconstruction. Case two had ureteral endometriosis and required a laparoscopic Boari flap and psoas hitch procedure to compensate for the extensive defect of the ureter. In this procedure the Boari flap duct is created and hitched to the psoas tendon. The cut end of the ureter is spatulated and reimplanted into the flap to create a submucosal tunnel.

Case three suffered from endometriosis at the ureterovesical junction. In this operation the bladder wall surrounding the ureteral orifice in was resected in a discoid fashion along with lower part of pelvic ureter. For reconstruction, extravesical ureteroneocystostomy with a psoas hitch was performed. This procedure was undertaken using only two 5mm and two 3mm fine instruments.

Results

All three patients recovered well without sequel, with no stenosis or leaks and no reflux.

Conclusions

Reconstructive techniques are vital in the development of radical surgery as it allows for the expansion of radical surgery. Correction of anatomical defects caused by surgery is one way to improve post-operative quality of life.

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ES24-0254
Laparoscopic Surgery

Endometriosis in Pregnancy: Laparoscopic Ovarian Cystectomy and Appendectomy in a 16-week Pregnant Woman

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Background

Ovarian endometriomas account for 4-5% of ovarian cysts diagnosed in early pregnancy.
We present the case of a 16-week pregnant woman who underwent laparoscopic ovarian cystectomy and appendectomy for a 9 cm ovarian endometrioma with involvement of the appendix.
She was diagnosed with a 7-cm endometrioma in early pregnancy. The ultrasound performed at 13 weeks, reported a cystic formation with 88 x 61 x 63 mm with a sonographic appearance of ovarian endometrioma. As pregnancy progressed, she complained of intense pelvic pain. During clinical observation an 8-cm pelvic mass was detected in the posterior cul-de-sac, painful at palpation.

Methods

The patient was submitted to laparoscopic surgery on the 16th week of pregnancy. We found the left ovary firmly adherent to the left ovarian fossa and the posterior cul-de-sac. It presented an 8-cm cystic mass adherent to the posterior cul-de-sac, appendix and right adnexa.
While performing the adhesiolysis of the referred adhesions, the endometriotic cyst ruptured, and a thick brown tar-like fluid was aspirated.
The capsule of the cyst was dissected from the ovary with a traction-countertraction technique.
The ovary was inspected for bleeding and bipolar energy was used to achieve haemostasis.
Appendectomy was performed as well.
The procedure was uneventful and normal fetal dynamic and heart rate were confirmed after surgery.

Results

The histopathologic analysis confirmed an endometriotic cyst. At the time being, the patient is clinically better. The ultrasound performed at 21 weeks reported a raised pulsatility index of the uterine artery and adequate fetal growth. Currently she is on the 26th week of pregnancy.

Conclusions

The majority of endometriotic cysts decrease during pregnancy and are asymptomatic. However, in pregnant women with symptomatic large endometriomas, surgery may be an option, especially if performed early in the second trimester.

http://player.vimeo.com/video/129690887?autoplay=1

ES24-0024
Oncology + Fibroids, including Morcellation OR Tissue Extraction + Laparoscopic Surgery

Endoscopic Inguinal Lymphadenectomy in Vulvar Cancer

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Background

This video shows endoscopic inguinal lymphadenectomy in vulvar cancer.

Methods

The patient was 72y old, and was admitted for “vulvar excrescence for 3 month”. On gynecologic examination, a 5*4*4cm mass was located at the right labium majus pudendi and the clitoris. The pathology of lumpectomy showed it was invasive differentiated squamous cell carcinoma. And the patient underwent Radical vulvectomy and bilateral endoscopic inguinal lymphadenectomy. The video showed the left side Inguinal Lymphadenectomy.

Results

The patients was followed for 2 years, and there was no sign for recurrence.

Conclusions

Endoscopic inguinal lymph node dissection in patients with vulvar cancer is a safe and feasible technique.

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ES24-0315
Oncology + Fibroids, including Morcellation OR Tissue Extraction + Laparoscopic Surgery

Technique of Nerve-sparing Total Laparoscopic Radical Hysterectomy (Type C1)

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Background

Radical hysterectomy is the standard procedure for the treatment of early stage cervical cancer. Nerve-sparing techniques have been increasingly used to reduce postoperative morbidity resulting from injury to autonomic pelvic innervation. Our objective was to present our technique of type C1 nerve-sparing total laparoscopic radical hysterectomy (NS-TLRH – Querleu & Morrow classification) in the treatment of early cervical cancer, and discuss its' technical points.

Methods

NS-TLRH was performed in a 54 years-old patient with a stage IA2 cervical cancer, using standard reusable instrumentation plus the harmonic scalpel for certain parts of the procedure such as division of the parametria and development of the rectovaginal space. Vascular clips were used to double-secure the large vessels.

Results

The procedure was performed in 264 minutes. No intra-operative complications occurred. Twenty pelvic lymph nodes were harvested. Blood loss was 125 mls. The patient made an uneventful recovery and was discharged home after 4 days. No postoperative urinary retention occurred, and bowel function was established on the 3rd postoperative day.

Conclusions

NS-TLRH is feasible and safe in the treatment of small cervical tumors, and should be the procedure of choice in such cases to avoid postoperative functional problems.

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ES24-0351
Oncology + Fibroids, including Morcellation OR Tissue Extraction + Laparoscopic Surgery

Ureteral Reimplantation After Total Laparoscopic Hysterectomy

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Background

We present a case of a 66 year old woman with a stage IIIB cervical carcinoma that causes a bilateral hydronephrosis. After cycles of standard chemoradiation treatement followed by brachytherapy there is a persistent hydronephrosis and is decided to ongo on salvage hysterectomy and posteriorly a reimplantation of both ureters to the bladder.

Methods

This video shows the procedure of the hysterectomy and the subsequent ureteral reanastomosis to the bladder.

Results

The first control after surgery was successful. The patient was well fit and renal function was preserved. Both ureteral catheters were removed. Permeability of both ureters was checked after the withdrawal.

Conclusions

Bypassing the most stenotic portion of the ureter with a ureteral re-anastomosis could be a good way to manage selected cases in which there is a large tissue fibrosis due to both tumor infiltration and brachy/radiotherapy.

http://player.vimeo.com/video/129984411?autoplay=1

ES24-0374
Oncology + Fibroids, including Morcellation OR Tissue Extraction + Laparoscopic Surgery

Laparoscopic Transperitoneal Pelvic Lymph Node Debulking and Para-aortic Staging Procedure in Locally Advanced Cervical Cancer: Feasibility and Safety Tips

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Background

The presence of lymph node metastases in cervical cancer has a negative impact on survival. Radical external beam radiotherapy (EBRT) may not achieve a sufficient radiobiological dose in order to sterilize a metastatic lesion larger than 2cm. Benefit of surgical pelvic nodal debulking and para-aortic staging has not yet been proved. Our aim is to show the feasibility, and some safety tips for this procedure.

Methods

We present the case of a 36yo patient, 3G3P without comorbidities, with a 4cm cervical tumor, and initial bilateral parametrial infiltration (FIGO stage IIB). Cervical biopsy: G2 invasive squamous cell carcinoma, without lymphovascular invasion. Chest and upper abdominal CT scan were normal. At pelvic MRI, there was a 4,3 cm cervical lesion, with initial parametrial invasion, and a right enlarged and suspicious iliac lymph node.

Results

The procedure included a systematic transperitoneal laparoscopic para-aortic and pelvic lymph lymphadenectomy, with a complete resection of the suspicious node. The video demonstrates the surgical exposure, safety measures to avoid vascular and nerve injuries, and oncological en bloc resection without compromising the nodal capsule. A senior fellow and an experienced surgeon performed the procedure. Total surgical time was 3h45m, and blood loss, 10cc, uneventful. Patient was discharged next morning. She had a symptomatic lymphocele, drained once, with a simple puncture. Final pathology report: 3/9 pelvic lymph nodes (the largest: 4,6 cm), and 0/27 para-aortic lymph nodes. Twenty days after surgery, the patient started radical EBRT (45 Gy) with weekly cisplatin (40mg/m2), followed by brachytherapy (4 x 7 Gy). As toxicity, she presented diarrhea G2, and no further symptoms. CT scans and clinical examination were negative at 9months of follow up.

Conclusions

This video demonstrates some technical tips for a safe surgical approach in patients with locally advanced cervical cancer and enlarged pelvic lymph nodes.

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ES24-0304
Oncology + Fibroids, including Morcellation OR Tissue Extraction + Laparoscopic Surgery

Morcellation Within an Insufflated Isolation Bag. Case Report

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Background

The role of morcellation in gynecologic surgery has recently raised awareness after a broadcasted case of dissemination of unexpected uterine leiomyosarcoma. Since the safety warning by the FDA reporting unsuspected uterine malignancy was performed, methods for tissue extraction during laparoscopic surgery have recently come under increased interest. One of the strategies involves improvement of contained morcellation techniques. A case of contained morcellation within an insufflated isolation bag at the time of uterine tissue removal during laparoscopic gynecologic procedure is presented.

Methods

3M Health Care Isolation Bag Steri-Drape 50x50mm (Ref. 1003) is used. The bag is folded and introduced through the left lower port and it is correctly orientated in the pelvis. The uterine specimen is placed into the bag. The edges around the open end of the bag are grasped and brought to the umbilical incision. The laparoscopic camera is placed through the umbilical port outside the bag. One lower edge is exteriorized through the left lower port. Then the optic is introduced through the umbilical port creating pneumobag. The lower left edge is opened to introduce the morcellator and fixed with suture. Uterine tissue is morcellated under direct vision. The remaining fragments contained in the bag are removed with the bag through the left lower port.

Results

30 morcellations were performed in our unit from September 2014 to April 2015 without perioperative or postoperative complications, but it increases the operative time. The isolation bag was successfully used in 29 cases. 1 case failed due to perforation of the bag and desufflation of pneumobag.

Conclusions

Techniques for specimen retrieval during laparoscopic surgery are needed to avoid dissemination of uterine tissue. There is no evidence that morcellation within an insufflated isolation bag improves the prognosis of women with unsuspected uterine malignancy. More studies in this field are needed.

http://player.vimeo.com/video/129935948?autoplay=1

ES24-0381
Oncology + Fibroids, including Morcellation OR Tissue Extraction + Laparoscopic Surgery

How to Capture the Big Beasts: Strategies to Reduce Blood Loss During Laparoscopic Myomectomy

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Background

Laparoscopic myomectomies for big fibroids can often be technically challenging and may at times involve significant blood loss.

Methods

We demonstrate in our video methods of reducing blood loss during laparoscopic myomectomies for big fibroids.

Results

In our video presentation of a laparoscopic myomectomy for a large fibroid uterus, we demonstrate lateral pelvic sidewall dissection, ureterolysis, temporary clipping of bilateral uterine arteries, prophylactic skeletonisation of infundibulo pelvic ligament and myomectomy for a large fibroid uterus.

The following steps were undertaken:

1. Trocar placement individualized to ensure easy manipulation
2. Pelvic survey performed and bilateral ureters identified
3. Right infundibulo pelvic vessels skeletonized as these were particularly large. - a loose knot was placed around the IP ligament prophylactically to be tightened in case of significant bleeding.
4. Peritoneum covering bilateral lateral pelvic sidewalls opened and bilateral ureterolysis performed
5.Uterine arteries identified
6. Vascular clips placed loosely over bilateral uterine arteries
7. Vasopressin infiltrated over the myometrium covering the fibroids
8. Myomectomy and multiple layers of suturing performed.
9. At the end of myomectomy, bilateral vessel clips and temporary tie removed
10. Haemostasis reconfirmed after removing clips

Blood loss during surgery was minimal and the patient was discharged the next day.

Conclusions

In addition to temporary clipping of uterine arteries, prophylactic skeletonisation of infundibulopelvic vessels can facilitate performing laparoscopic myomectomies for larger fibroids.

http://player.vimeo.com/video/130003708?autoplay=1

ES24-0472
Oncology + Fibroids, including Morcellation OR Tissue Extraction + Laparoscopic Surgery

Laparoscopic Myomectomy for Large (>10cm) Uterine Fibroid: Video Comparison of Case Pre-treated with Ulipristal Acetate (UPA) with an Untreated Case.

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Background

Objectives: In this video we demonstrate the technique of laparoscopic myomectomy for a large uterine fibroid. The difference in surgical technique and outcomes is compared between a case pre- treated with Ulipristal acetate (UPA) versus no pre-treatment.A variety of pre and intra-operative interventions have been used to reduce risk of bleeding during myomectomy. Although, UPA is licenced for pre-operative treatment of symptomatic uterine fibroids, its efficacy in reduction of surgical bleeding has not been evaluated.

Methods

Two subjects aged 30 years (subject A) and 40 years (subject B) with total uterine size of 18 and 20 weeks gestational equivalent respectively underwent laparoscopic myomectomy for removal of large posterior intramural fibroids, on the same day. Subject A was was pre- treated with three months of daily 5 mgs Ulipristal acetate (UPA) to manage symptoms, whereas, subject B was not pre-treated in order to maximise chance of conception prior to surgery. Laparoscopic myomectomy was carried using 4 ports - umbilical and epigastric 10 mm ports and 2x5 mm high lateral ports. Diluted Vasopressin 1:20 was injected into fibroid capsule as a haemostatic intervention, and fibroids removed through posterior transverse incision. In subject A who was pre-treated with UPA, the tissue planes were difficult to identify, and, therefore removal was difficult. In patient B who was not pre-treated, the tissue planes were more easily identified making removal easy, but considerable intra-capsular bleeding was encountered. Uterine incisions were closed with multi-layer technique and all specimens were morcellated intra-abdominally using LINA Xcise™ prior to extraction.

Results

The maximal diameter of the largest fibroid removed was 100mm and 130mm in subject A and B respectively. The intra-operative time (129 versus170 minutes) and surgical blood loss (400mls versus 1000mls) were significantly lower in patient A compared to patient B. The first post-operative day Hb was 111 g/L (pre-op Hb 122) and 100g/L (pre-op Hb 139) in patient A and B respectively. Both patients had an uneventful post-operative recovery and went home on post-operative day 1 and day 3 respectively, without need for blood transfusion

Conclusions

The use of UPA has been shown to reduce bleeding symptoms, fibroid volume and improve pre-operative Hb and quality of life in patients with symptomatic uterine fibroids (PEARL studies). The principal mechanism of action is inhibition of cell proliferation and induction of apoptosis, and any association with outcomes such as ease of surgery and intra-operative bleeding needs to be evaluated in future well designed research trials.

http://player.vimeo.com/video/130037726?autoplay=1

ES24-0512
Oncology + Fibroids, including Morcellation OR Tissue Extraction + Laparoscopic Surgery

Power Morcellation in the Bag:A Surgical Technique

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Background

Morcellation refers to the division of specimens into smaller pieces or fragments in order to facilitate the removal of tissue through small incisions during minimally invasive procedures. Recently, the use of power morcellation has been discouraged because of the risk of spreading an unsuspected uterine malignancy. In this video, the authors demonstrate the surgical technique for laparoscopic power morcellation in the bag.

Methods

A 40-year-old woman with a 400g uterus requiring hysterectomy due to leiomyomas and abnormal uterine bleeding was scheduled for total laparoscopic hysterectomy with specimen morcellation in the bag. Four trocars were placed: one 10mm umbilical trocar for the zero degree laparoscope and three 5mm trocars for the laparoscopic instruments, one at the right iliac fossa, 2cm medial to the right anterior superior iliac spine, another one at the left iliac fossa, 2cm medial to the left anterior superior iliac spine, and the third one in the midline, 8 to 10cm below the umbilical trocar. The 5mm trocar at the left iliac fossa was replaced by a 15mm trocar for the morcellator at the end of the procedure. In order to perform the power morcellation within a bag, the authors used a large tissue retrieval bag (3100ml). The bag was placed inside the abdominal cavity through the 15mm trocar. Once the entire bag was inserted into the abdominal cavity, the mouth of the bag was opened using 3 grasping forceps and the specimen to be morcellated was put inside the bag. The bag was closed pulling the draw string and it was retrieved from the abdominal cavity through the 15mm trocar placed at the left iliac fossa. Then the 15mm trocar was re-placed through the mouth of the bag. Pneumoperitoneum was insufflated through the 10mm umbilical trocar and using the 5mm trocar at the right iliac fossa, the assistant could grab the deeper part of the bag and pull it out through the skin. Finally, the surgeon could grab the closest portion of the bag to the umbilicus and externalize it through the umbilical trocar. In this way, we could have 3 different sites of the bag outside the abdominal cavity. The bag was cut with regular scissors and the 10mm trocar was reinserted inside the bag at the umbilicus and the 5mm trocar was reinserted inside the bag at the right iliac fossa. The insufflation was performed within the specimen bag. In this way, the specimen could be enclosed morcellated under direct visualization.

Results

The procedure was performed successfully along with safe enclosed tissue morcellation.

Conclusions

Power morcellation within a bag is a feasible technique. It may be an alternative way to preserve the benefits of minimally invasive surgery while mitigating the risks whenever specimen morcellation is necessary.

http://player.vimeo.com/video/130045743?autoplay=1

ES24-0536
Oncology + Fibroids, including Morcellation OR Tissue Extraction + Laparoscopic Surgery

Ulipristal Acetate in Myoma Surgery: Friend or Foe?

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Background

Ulipristal acetate in myoma surgery: friend or foe?

Linda Tebache, Valérie Dechenne, Géraldine Brichant, Michelle Nisolle

Operator: Linda Tebache, Valérie Dechenne, Michelle Nisolle, CHR Citadelle, Univeristy of Liège, Belgium

Sharing our experience and difficulties in the management of myomas in conservative surgery after ulipristal acetate (UA) treatment.

Methods

Myomas are defined as benign, hormono-dependent tumors arising from the uterus. Symptoms consist in anemia, pain and /or infertility. They can also be asymptomatic. Usual management includes abstention, palliative medical therapy and/or surgery. Surgery can consist in myomectomy (either laparoscopically or laparotomically) or hysterectomy.

UA is a Selective Progesterone Receptor Modulator (SPRM), which is used in emergency contraception and recently in myomas care. In Belgium, this new treatment is approved following precise and limited criterias before surgery.

Literature describes a size reduction of the myoma after treatment with UA and decreasing of the bleeding.

Results

In our short experience of surgical management of myomas after UA treatment, we faced sometimes difficulties in the myoma dissection because of necrobiosis degeneration. It might be a consequence of the treatment, having no link with the delay between treatment and surgery. This video illustrates two different types of myoma evolution after UA and particularly the myoma in necrobiosis. This degeneration induces difficulties to separate the myoma from the healthy surrounding uterine tissue and also increases the risk of dissemination.

Conclusions

Nowadays, in our experience, there is no possibility to predict the necrobiosis transformation of myoma after UA treatment. Performing a transvaginal ultrasound on the last pre-operative visit allows for the establishment of the diagnosis. When noticed during surgery, a laparotomic conversion could perhaps help to prevent complications. Collecting anapathological data and reporting our cases is fundamental to improve our knowledge and to evaluate the incidence and risk factors.

http://player.vimeo.com/video/130096344?autoplay=1

ES24-0540
Oncology + Fibroids, including Morcellation OR Tissue Extraction + Laparoscopic Surgery

Strategies for Bleeding Control On Miomectomy

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Departamento de Ginecologia e Obstetricia, Sao Paulo, Brazil

Background

The purpose of this video is show how the laparoscopic surgeon can use strategies for control bleeding. We use vasopressin, uterine artery clipping , and the barbed suture for improve safety for the patient.

Methods

Videos from live surgery performed by the same surgeon were selected. There was three patients with many fibroids , infertile condition, and irregular menses. The strategy was chosen by the surgeon after evaluate which one should have more safety and control bleeding.

Results

The miomectomy using those strategies could be done without a large blood loss. The surgeon use the vasopressin and fibroid becomes white, without bleeding. Those uterine arteries were clipped temporary. And for the complete hemostasis of the myometrium barbed suture was performed.

Conclusions

This strategies can be used for bleeding control . The surgeon have to decide which one use for each patient

http://player.vimeo.com/video/130171297?autoplay=1

ES24-0201
Oncology + Fibroids, including Morcellation OR Tissue Extraction + Laparoscopic Surgery

Laparoscopic Excision of a Retroperitoneal Cystic Lymphangioma. A Case Report.

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Background

The differential diagnosis of pelvic masses in women is broad including ovarian and extraovarian masses. Depending on age of patient and sonography and radiological features of the mass the management should be different. In postmenopausal women the degree of suspicion of malignant mass is higher (30% of ovarian masses are malignant) so surgical exploration mandatory. The retroperitoneal lesions belong to extraovarian masses group and has a heterogeneous etiology (shwannoma, teratoma, linfangioma…).

Methods

We present the case of 52 years old woman who was evaluated for right adnexal cyst which size increase from 6 to 10 centimeters in 4 months. Tumor markers were negative, US (ultrasound) and TC (computer tomography) suspected a pelvic pseudocyst versus adnexal lesion with progressive growth but no pelvic lymph nodes and ascites were found.

The patient accepted to undergo surgery to confirm the diagnosis and to treat it depending on intraoperative findings.

Results

Intraoperative diagnosis was a retroperitoneal cyst unrelated with ovary and a cystectomy, adhesiolysis and aspiration of cyst liquid was performed without incident. The postoperative period was correct. The pathological study concluded that it was a cystic lymphangioma.

Conclusions

In relation of pelvic masses, sometimes the imaging techniques do not give us a good orientation of the case. Therefore, it is necessary to make a diagnosis by surgery even thought the definitive diagnosis is histo-pathological. Regarding to our case report we think it’s important a good knowledge of the retroperitoneum space anatomy to offer a first surgical treatment.

http://player.vimeo.com/video/128559738?autoplay=1

ES24-0193
Technical Innovation in Minimal Invasive Surgery

NOTES Innovations and the Merits of Vaginal Hysterectomy over Laparoscopic Hysterectomy

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Background

Aiming to reduce surgical morbidity, we introduced pure transvaginal Natural Orifice Transluminal Endoscopic Surgery (vNOTES) in our practice in November 2013 as an alternative for conventional laparoscopy. Our Poor Man's NOTES approach uses only reusable standard laparoscopic instruments and a low cost self-constructed single port device.

Methods

We performed more than 100 vNOTES procedures since November 2013. A Poor Man's NOTES port was constructed before surgery, using an Alexis Wound Protector attached to a size 8 surgical glove. One finger of the surgical glove was incised to place a 10 mm reusable trocar for CO2 insufflation and laparoscope insertion. Four 5 mm reusable trocars were placed through the remaining fingers for insertion of the reusable laparoscopic instruments. The gloveport is placed transvaginally into the Pouch of Douglas to perform salpingectomy, adhaesiolysis, adnexectomy and cystectomy. For Total Vaginal NOTES Hysterectomy (TVNH) the port is placed in the vagina. All procedures were performed by pure vNOTES; no abdominal incisions were made.

Results

This video demonstrates 5 different procedures performed by vNOTES: salpingectomy for ectopic pregnancy, adhaesiolysis for abdominal pain, adnexectomy for small and large adnexal mass, cystectomy for ovarian cysts and hysterectomy for benign indication.

Conclusions

vNOTES was successfully introduced into our daily surgical practice. This video demonstrates 5 different gynaecological procedures that can be performed by vNOTES. It demonstrates that the poor Man's NOTES technique can be used to successfully and safely perform different gynaecological operations using only reusable standard laparoscopic instruments and a low cost self-constructed single port device. This minimally invasive, and frugally innovative, technique also enables surgeons to perform these 5 different procedures without abdominal incisions, in low resource settings. vNOTES is a novel technique requiring further validation.

http://player.vimeo.com/video/128294948?autoplay=1

ES24-0009
Technical Innovation in Minimal Invasive Surgery

Aleep (Abdominal Loop Electrical Excision Procedure) a Newly Developed Instrument to Reduce Post-operative Cervical Bleeding in Lash Procedure Patients

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Background

Rainer Deckardt, MD,PhD, and Andreas Roth, MD, PhD

From the Gynaekologische Tagesklinik Muenchen, Munich, Germany (both authors)

Abstract

Laparoscopically assisted supracervical hysterectomy (LASH) has gained in incidence in patients with benign diseases of the uterus undergoing hysterectomy. Besides the multiple clinical benefits of this procedure to the patient, the remaining cervical stump my cause problems, which may reduce patient satisfaction and in some even necessitates further surgical intervention.

One of the major problems of LASH is postoperative bleeding from the remaining cervical stump. The cause of this complication is not completely understood but likely, yet not always, due to remaining endometrial tissue in the preserved cervix. The incidence ranges from <1% to 25%.

To minimize the incidence of post-operative bleeding after LASH, we developed a newly designed resection electrode.

Methods

Laparoscopically assisted supracervical hysterectomy (LASH) has gained in incidence in patients with benign diseases of the uterus undergoing hysterectomy. Besides the multiple clinical benefits of this procedure to the patient, the remaining cervical stump my cause problems, which may reduce patient satisfaction and in some even necessitates further surgical intervention.

One of the major problems of LASH is postoperative bleeding from the remaining cervical stump. The cause of this complication is not completely understood but likely, yet not always, due to remaining endometrial tissue in the preserved cervix. The incidence ranges from <1% to 25%.

To prevent postoperative bleeding following LASH, different measures have been suggested. The length of the remaining cervix shall be short, bipolar coagulation of the endocervical canal is being performed routinely in most centers, excision of the endocervix in some.

Results

To minimize the incidence of post-operative bleeding after LASH, we developed a newly designed resection electrode. This electrode is being inserted through one of the existing 5 mm trocar sites and connected to monopolar current. The tip of the electrode is inserted into the abdominal part of the endocervical canal where the depth of insertion is marked on the instrument. The loop shape of the abdominal resection tool (ALEEP) is designed to secure sufficient tissue gain in either vertical and horizontal direction. The harvested tissue cylinder is sent separately to histology.

Conclusions

Although there are some reports that show cervical bleeding even after complete resection of the endocervix, it is our understanding that use of this newly developed resection tool offers some distinct advantages as compared to other procedures in order to further reduce post-operative bleeding. The resection is performed under direct vision as compared to blind bipolar coagulation, histology of the endocervix is being gained, there is little thermal damage to the cervix. The resection is quick and requires no further equipment besides the electrode.

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ES24-0017
Technical Innovation in Minimal Invasive Surgery

Enclosed Transvaginal Morcellation of an Enlarged Uterus After Total Laparoscopic Hysterectomy

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Background

Specimen extraction has becoming more challenging in the past year in the United States due to the limitations on electromechanical morcellation. In order to continue to offer minimally invasive techniques to our patients, we have developed alternative methods of specimen extraction. The objective of this video is to demonstrate successful transvaginal morcellation of an enlarged uterus after laparoscopic hysterectomy and bilateral salpingo-oophrectomy utilizing a containment system.

Methods

A video demonstration of this technique.

Results

After total laparoscopic hysterectomy and bilateral salpingo-oophorectomy of an 18 week-sized uterus, a flexible wound protector/retractor is placed transvaginally. An endoscopic specimen retrieval bag is inserted through the transvaginal wound protector/retractor and opened in the pelvis. The hysterectomy specimen is placed in bag, and the opening of the bag is brought to the introitus. The fallopian tubes, ovaries, and cervix are identified and removed en bloc. The uterus is then manually morcellated with a scalpel within the endoscopic specimen bag.

Conclusions

Transvaginal morcellation of an enlarged fibroid uterus after total laparoscopic hysterectomy and bilateral salpingo-oophorectomy within a wound protector/retractor and durable nylon-polyurethane endoscopic bag is a feasible containment technique. It avoids intraperitoneal dissemination of tissue associated with electromechanical morcellation.

http://player.vimeo.com/video/125523646?autoplay=1

ES24-0089
Technical Innovation in Minimal Invasive Surgery

A Simple New Method for Laparoscopic Sacrocervicopexy

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Background

Minimal invazive surgical procedures are becoming a leading approach for POP-Q (Pelvic organ Quantification) stage II-IV uterine prolapse in the last two decades. Short hospital stay, faster mobilization, decreased blood loss and perfect intraoperative vision are the most common advantages to choose the minimal access techniques. There aren't sufficient datas and randomized controlled trials comparing laparoscopic sacrocervicopexy and vaginal or abdominal approaches. Laparoscopic sacrocervicopexy and its advantages is not known and the technique has not been standardized yet. It is still an alternative procedure to uterosacral suspension. In this video abstract we are demonstrating a simple new technique for laparoscopic sacrocervicopexy for uterine prolapse.

Methods

This new technique has two parts. The first part is the vaginal procedure. We use a polipropylene macroporous T-shaped mesh to fix it to the cervix. We dissect anterior and posterior of the cervix, like in the mcdonald cerclage operation and place the head of the mesh around the cervix with suturing non-absorbable 2.0 prolene sutures. After that tail of the T-shaped mesh is passed with the clamps between the sacrouterine ligamants from rectouterine space to the abdomen.
In the second part we perform laparoscopy. We dissect the peritoneum and rectum down and take the mesh from vagina. We use laparoscopic tacker to fix the mesh in tension free manner to the sacrum and anterior longitudinal ligament. After that we close the peritoneum with polyglactine 2.0 sutures and finish the operation.

Results

We perform this operation on 21 patient from 2010-2013 in our tertiary referral university teaching hospital. Mean age of the patients is 36.7 years old. After 1 year follow-up; all of the patients but one, have sufficent vagina in pelvic examination. Average C point lifting was 6.1 cm. 18 patients reported satisfied sexual intercourse. 3 patients reported disparunia. 7 of 21 patients who had symptoms of stress or urge incontinence preoperatively, didn’t undergo any concomitant continence surgery. 4 of these patients reported subjective improvement of their incontinence after one year. There was only one complication which is a mesh erosion in these patients. We excised mesh laparoscopically and performed a high level McCall culdoplasty after 3 months from the first operation.

Conclusions

This method can be an alternative to the traditional vaginal methods and classical laparoscopic sacrocervicopexy . A limitation for this procedure may be the use of both vaginal and laparoscopic routes due to the infectious pathologies. Although it hasn't got long term results and there is not enough patients who undergone this operation, the technique can be considered as a simple, easier and feasible surgical method.

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ES24-0117
Technical Innovation in Minimal Invasive Surgery

Vaginal Assisted Laparoscopic Sacro-cervical Colpopexy with Prolene Mesh and Metal Screw + Bilateral Round Ligament Shortening + Burch Colposuspension + Posterior Colporrhaphy

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Background

The patient is a 48-year-old lady , G4P4 , (all NSD) , who is troubled with symptoms of moderate uterine prolapse (stage III) . She wishes to undergo surgical interventions to improve her condition and also preserves the uterus. The lady had never underwent any gynecological surgeries before. After pre-operation evaluating and discussing with the patient , we have decided to perform vaginal assisted laparoscopic sacro-cervical colpopexy with prolene mesh and metal screw + bilateral round ligament shortening + Burch colposuspension + posterior colporrhaphy as the operation method.

Methods

The surgical team members include Dr.Chun-Kai Chou , Dr.Jia-Chun Yuan , and Dr.Wu-Chou Lin , all currently work in department of OBS/GYN , China Medical University Hospital. We modified the traditional method of laparoscopic hysterosacropexy , instead , under lithotomy position , we began with laparoscopic dissection of retroperitoneal pre-sacral space , and with three stitches, we fixed one end of the prolene mesh to the posterior cervial wall , and bilateral uterine-sacral ligament-cervical joints. Then we pushed the other end of the prolene mesh upward --tranvaginally into the presacral space and fixed on the right upper quadrant of the sacrum with several metal screws. Next , we closed the retroperitoneum with purse-string suture. Finally , in order to strengthen the prognosis of the surgery , we also performed bilateral round ligament shortening by electrocauterizing and tighten the medial and lateral ends of the bilateral round ligaments with suture materials.

Results

The surgery went very well. The time of the surgery was about two and half hours and the estimated blood loss was less than 50 ml. After the surgery , the lady's symptoms of uterine prolapse got greatly improved and was discharged 3 days later.

Conclusions

This modified method has better effects of uterine suspension with greater satisfaction degree. However the dissection of presacral space has many pitfalls. We must dissect the space with patience , avoid the major and minor vessels , check the anatomy position of bilateral ureters , and careful with the possible complications such as prolene erosion,

http://player.vimeo.com/video/127913570?autoplay=1

ES24-0212
Technical Innovation in Minimal Invasive Surgery

The World of Gynecological NOTES

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Background

Natural orifice transluminal endoscopic surgery (NOTES) is a surgical technique using a flexible endoscope introduced through a natural orifice (mouth, urethra, anus or vagina). In an early stage, Hybrid-NOTES was started in our hospital. During this procedure, a flexible endoscope was introduced through the posterior vaginal fornix and a 5 mm trocar was introduced through the umbilicus during salpingo- oophorectomy. Alternatively, a 5-mm trocar was placed in the umbilicus, and a 3- or 5-mm trocar was placed in the left lower quadrant during myomectomy or hysterectomy. Patients were administered general anesthesia and placed in the lithotomy-Trendelenburg position with the maximum opening of legs. The surgeon stood on the left side of the patient and manipulated one or two forceps through the placed trocar. The assistant was positioned at the vaginal end and manipulated a flexible endoscope. However, Operative incisions were made on the abdominal wall during the hybrid NOTES, which influence patient's quality of life (QOL) post-surgery (i.e., post-operative pain or cosmetics).

Methods

In recent years, pure NOTES has been performed using a platform inserted into the vagina. This procedure demonstrates that a flexible endoscope and forceps introduced through the vagina is a feasible surgical method not requiring abdominal incision. This procedure has only been performed on patients undergoing salpingo-oophorectomy. Operative outcomes were assessed and compared with those of patients who had undergone two-port laparoscopic surgery. An informed consent was obtained from all patients. This study was approved by our Institutional Review Board.

Results

There were no significant differences in the operative time and blood loss between the two groups. There was no significant difference in pre- and post-operative WBC count; however, the post-surgical CRP counts on day 3 were significantly lower in the pure NOTES than those in the two-port surgery [pure NOTES: median 0.76 (range 0.09–2.57) vs. two ports surgery: median 0.31 (range 0.08–1.55), $P = 0.047$].

Conclusions

We conclude that NOTES is a practical, safe, and minimally-invasive procedure to perform, and it has the potential to improve patient's QOL post-surgery. However, it is more difficult than conventional laparoscopic surgery. Therefore, the pure NOTES procedure should be limited to simple cases such as small, non-adhesive adnexal tumors.

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ES24-0250
Technical Innovation in Minimal Invasive Surgery

Minimally Invasive Repair for Vesico-Vaginal Fistula- Suprapubic Transvesical Laparoscopy.

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Background

We present our most minimally invasive method of repair for vesico-vaginal fistula via suprapubic transvesical laparoscopy. This procedure was developed to provide patients with the most cosmetically attractive result while still achieving the necessary aims of the surgery. Although vaginal fistula repair is minimally invasive, lack of mobility and descent of the bladder and vaginal vault due to postoperative or inflammatory fibrosis, make it difficult to reapproximate the detrusor muscle.

Methods

The case presented is a 45 year old woman with vesico-vaginal fistula found by CT scan 3 months after total laparoscopic hysterectomy for stage 1A endometrial cancer. This patient is a professional dancer and requested a technique with as few minimal abdominal wounds as possible. The first step of this procedure is performed vaginally. After reapproximation of the vaginal mucosa and identifying the fistula under cystoscopic vision, a balloon catheter is placed in the fistula. Then, the bladder is fixed to the abdominal wall from outside the body.

Results

The suprapubic transvesical laparoscopic procedure requires only one 5mm and two 3mm suprapubic ports and 3mm forceps and needle drivers and a 5mm O degree telescope.

Conclusions

This procedure allows complete reapproximation of the detrusor muscle. The patient recovered rapidly without complications and, due to the size and placement of the ports, without prominent scars for an excellent cosmetic result.

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ES24-0340
Technical Innovation in Minimal Invasive Surgery

Split Thickness Skin Graft for Cervicovaginal Reconstruction in the Patients with Congenital Atresia of Cervix

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[2]*OBS&GYN hospital- Fudan university, Gynecology, Shanghai, China*

Background

To introduce a new technique which is combined laparoscopic and vaginal cervicovaginal reconstruction using split thickness skin graft in patients with congenital atresia of cervix.

Methods

A midline incision at the vaginal introitus was made and a 9-cm canal was made between the bladder and the rectum by sharp and blunt dissection along the anatomic vaginal route, with the help of laparoscopy to ensure correct orientation. A 14*12 cm split thickness skin graft was harvested from the right lateral thigh. The level of the lowest pole of the uterine cavity was exposed and the cervix was incised by shape dissection by laparoscopy. The proximal segment of the harvested skin to lower uterine segment was secured and the distal segment was sutured with upper margin of vulva vaginally.

Results

The procedure was successfully completed, without complications, and cervical or vaginal stenosis.

Conclusions

The new technique is feasible and the safe for congenital atresia of cervix, with successful results and without complications, and cervical or vaginal stenosis.

http://player.vimeo.com/video/129980803?autoplay=1

ES24-0479
Technical Innovation in Minimal Invasive Surgery

Combined Surgical Methods Approach to Cervical Agenesis Repair

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[1]Sheba Medical Center- Ramat-Gan Israel, Gynecology, Ramat-Gan, Israel

Background

Surgeons: Goldenberg M., Soriano D., Zolti M., Rabinovich O. Sheba Medical Center, Ramat-Gan, Israel.
Congenital uterine cervix agenesis is a rare and described mullerian anomaly associated with partial or complete vaginal aplasia and renal anomalies. Cervical dysgenesis may occur as well, with varying existing portions of the cervix. Specifically it's a disorder of vertical fusion of the mullerian ducts. Often patients present with primary amenorrhea and cyclic abdominal pain as a result of the obstructed menstrual tract. Delayed diagnosis and treatment may result in endometriosis with potential devastating consequences regarding fertility and quality of life.Traditionally, attempts of canalization procedures had high failure rates and complications, thus hysterectomy has been the recommended alternative.

Methods

In this video I will present our center's experience of 2 cervical agenesis cases treated with combined disciplines of surgery and ultrasound. Before presenting the cases, let's describe the surgical stages: The surgery was done by two surgical teams. An abdominal approach team, and a vaginal approach team.

1. Adhesiolysis and restoring anatomy (with endometriosis resection).
2. A laparoscopic suction needle introduced into the uterine cavity.
3. Insertion of a 5 mm trocar into the uterine cavity (based on suction needle placement).
4. Hysteroscope placement through 5 mm trocar and endometrial tissue identified.
5. Transillumination guide for the placement of uterine tissue incision (from vaginal approach).
6. A silicone foley catheter was placed to create the neocervix.

Results

1st patient was complicated with a vesico-vaginal fistula that was successfully repaired. She had menses, but eventually underwent a hysterectomy due to the return of amenorrhea and abdominal pain. She is still in follow up, with no symptomatic endometriosis under medical treatment.
2nd patient eventually had the silicone catheter removed around 6 months post-surgery. She continues with regular menstruation to date, and last follow up was a recent consult about pregnancy options in our high risk pregnancy outpatient clinic.

Conclusions

The importance of this presentation is showing the integration of different tools (laparoscopy, hysteroscopy, ultrasound and vaginal surgery) with unique approaches for a single operation. To conclude, we have seen multidisciplinary use of different modalities in surgical techniques and imaging, incorporated together within a single procedure.
Take home message: Having a diverse 'toolbox', makes more solutions possible

http://player.vimeo.com/video/130039424?autoplay=1

ES24-0002
Hysteroscopic Surgery + Laparoscopic Surgery

Hysteroscopic Removal of an Unusual Foreign Object

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Background

Objectives: 26 year old lady presented with the complaint of intractable abnormal vaginal bleeding. In her past fertility history, she had caserean delivery two years before in another country. Four months after the operation she started having dysfunctional bleeding. The aim of this presentation is to show the hysteroscopic removal of a rare foreign object -retained suture material- from the uterine cavity.

Methods:

On transvaginal ultrasound examination both adnexa appeared normal. The uterus measured within normal limits while the endometrial cavity was found to have heterogeneous echogenity with irregular contours **(figure)**.

Hysteroscopy was planned based on the presumptive diagnoses of endometrial hyperplasia or placental rest.

Two misoprostol pills were administered vaginally two hours before the procedure. The procedure was performed as an ambulatory procedure under general anesthesia. Following cervical dilatation, the operative resectoscope was introduced inside the cavity. Mannitol 5% solution was used as the distension medium. Just after passing the internal os level, multiple loops of multiflament suture thread originating from the lower segment of the anterior wall were encountered. Since office hysteroscopy set up was not available in the clinic at that time, the thread loops were cut as close to their origin as possible by monopolar loop electrode. Finally fundal myometrium and tubal ostia were rechecked and the operation was finished.

Results:

The patient recovered and was discharged after 2 hours of bed rest. Since the lady returned to her country, we do not have the follow up ultrasound or sonohysterography images. On telephone, she stated that she had started having regular cycles without any complaints.

Conclusions:

Non-absorbable suture material retained inside the uterine cavity may be a rare cause of intractable abnormal vaginal bleeding.

http://player.vimeo.com/video/126192951?autoplay=1

ES24-0153
Hysteroscopic Surgery + Laparoscopic Surgery

Hysteroscopic Removal Placental Remnants and Adhesions Using Hysteroscopic Morcellator Myosure

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Background

We present a removal placental remnants recurrent pregnancy 10 wk .and the solution intrauterine adhesions using hysteroscopic Morcellator.

Methods

Using hysteroscope Morcellator MyoSure to remove placenta residues recurrent pregnancy and the dismissal of intrauterine adhesions

Results

Female 42 years fetal resorptions 10wk. After IVF and a history of submucosal fibroid removal with resectoscope

Conclusions

The use of hysteroscope Morcellator MyoSure is feasible and effective for removing residues recurrent pregnancy placenta and endometrial adhesions s besides the already known use for the removal of polyps and endometrial fibroids

http://player.vimeo.com/video/130011248?autoplay=1

ES24-0293
Hysteroscopic Surgery + Laparoscopic Surgery

In-Office Minimally Invasive Removal of an Incarcerated IUD in the Cesarean Scar Pouch

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Background

A misplaced IUD may be related to several causes, among those, not correct insertion is the leading cause. In these cases, patients may complain of abnormal bleeding, pelvic pain, pregnancy or may remain asymptomatic. When a displaced IUD is suspected, transvaginal ultrasonography is the primary investigation, followed by radiographam, in cases in which the IUD is not seen within the uterus. Additional imaging such as computed tomography scanning or magnetic resonance may be needed. The standard method to remove a misplaced IUD is usually an in-patient approach with curettage or large-size hysteroscopes. An incarcerated IUD in the ceasarean scar pouch where the myometrium is only few millimeters thick, represents a great therapeutic challenge.
The objective of our study was to describe the in-office hysteroscopic removal of an intrauterine device (IUD) partially perforating the cesarean scar pouch, using miniaturized electrosurgical and mechanical operative instruments. A Step-by-step description of the technique using slides, pictures and video (educative video).

Methods

Hysteroscopic removal of a partially perforating IUD in the cesarean scar pouch of a 38 years old woman, complaining of irregular bleeding since its insertion. The procedure was performed in ambulatory setting using a 5mm continuous-flow hysteroscope and vaginoscopic approach without any analgesia and/or anesthesia. The alternate use of mechanical and electrosurgical 5Fr instruments allowed to separate the IUD from the myometrial uterine wall respecting the healthy myometrium and without causing significant patient discomfort or complications.

Results

The alternate use of mechanical and electrosurgical 5Fr instruments allowed to separate the IUD from the myometrial uterine wall respecting the healthy myometrium and without causing significant patient discomfort or complications.

Conclusions

The possibility of using miniaturized electrosurgical and mechanical instruments with small diameter hysteroscopes offers the possibility of a safe and successful removal of a misplaced IUD, even if located in a dangerous position (i.e. deeply embedded in the myometrium of the cesarean scar pouch). This minimally invasive approach can be performed in office setting avoiding more invasive and traumatic approaches.

http://player.vimeo.com/video/129912957?autoplay=1

ES24-0416
Hysteroscopic Surgery + Laparoscopic Surgery

Adhesiolysis for Asherman's Syndrome After Multiple Hysteroscopic Myomectomies: A Case Presentation

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Background

A 46-years old patient presented at our hospital, G0, P0, with amenorrhea after four hysteroscopic myomectomies and the diagnosis of Asherman's syndrome established. With the third procedure a few fibromas were removed at the same time. Adhesion barrier gel was inserted in the cavity only after the last procedure. Her desire was to conceive.

With this presentation we aim to remind of the importance of intrauterine adhesion prevention.

The literature review shows that intrauterine adhesions are a possible complication of therapeutic procedures on the uterus which can interfere with fertility or become symptomatic, for example the Asherman's syndrome. Treatment options include hysterotomy, dilatation and curettage, hysteroscopic surgery. In order to prevent intrauterine adhesion formation, authors propose intrauterine device (IUD) insertion, intrauterine balloon stent, folley catheter or anti-adhesion barrier gels, followed by medical therapy or stem cells for restoration of normal endometrium.

Methods

Hysteroscopy was performed with a 12^0, 4 mm Storz hysteroscope. Distention solution Sorbitol was used, pressure was set to 100 mmHg and flow - 1,5 L/min. Obliterated uterine cavity was found, with predominantly dense fibrous adhesions. The procedure lasted longer than usual and caused considerable bleeding. A copper IUD was inserted in the end of the procedure for three months and combined estrogen-progesterone therapy was initiated, as our team is most satisfied with this approach.

Results

We have achieved restoration of the uterine cavity of our patient. The lady is currently in her IUD and hormonal therapy period and we document endometrial growth. At this point we believe the prognosis is optimistic.

Conclusions

Our take-home message is to stick as close as possible to the rules for operative hysteroscopy in order to reduce the risk for intrauterine adhesions formation. In our opinion, IUD insertion is one such old, however effective method which shall not be left behind.

http://player.vimeo.com/video/130019532?autoplay=1

ES24-0490
Hysteroscopic Surgery + Laparoscopic Surgery

Hysteroscopic Division of a Case Each of Partial and Complete Uterine Septum : Comparison of Surgical Techniques.

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Background

Uterine septum is the second most common type of congenital uterine anomaly and is associated with increased risk of miscarriage. We offer hysteroscopic division to women with recurrent miscarriage, and, prior to IVF, either as a primary or as an interval procedure.
In this video is to demonstrate the difference in surgical technique for division of partial versus complete uterine septum

Methods

We present 2 women presenting with primary unexplained subfertility, and, a finding of uterine septum at baseline investigations. Subject A was a 34 years who had an incomplete uterine septum measuring 25mm in length (ESHRE-ESGE Class U2a), whereas, Subject B was 37 years old who was found to have a complete uterine septum measuring 53mm upto external cervical os (ESHRE-ESGE Class U2b). Both subjects were otherwise booked to initiate IVF treatments and were offered surgery to reduce potential risk of miscarriage. Both hysteroscopic cases were done under general anaesthesia using bipolar diathermy and normal saline distension.

In Subject A, the septum was divided using 10mm 30^0 Surgmaster™ (Olympus), whereas, in Subject B, the cervical septum was divided with a 1.8mm 0^0 Versascope™ (Gynaecare) till just beyond the level of internal os, and, the rest of the septum with the Surgmaster.

Septum in each case was divided to align with the tubal ostia and endo-myometrial junction without recourse to either laparoscopy or ultrasound scan for depth control. An intrauterine device was inserted in the uterine cavity for prevention of adhesions and removed in clinic in 6-8 weeks.

Results

Both procedures were completed without any complications and subjects discharged home the same day. Subject B underwent IVF treatment immediately following removal of the IUD, and, went on to deliver liveborn twins by emergency caesarean section at term. Subject A is still awaiting her IVF treatment.

Conclusions

Hysteroscopic surgery for uterine septum can be challenging, but, with careful pre-operative planning using 3D imaging, and modification in technique based on depth of uterine septum, safe treatment can be achieved. The Surgmaster due its larger diameter has better optics for precise depth of cut, whereas, the Versascope is particularly useful for division of complete and/or broad-based septums with limited room for surgical manoeuvre.

http://player.vimeo.com/video/130041914?autoplay=1

ES24-0542
Hysteroscopic Surgery + Laparoscopic Surgery

An Exceptional Case of Complete Uterine Septum with Unilateral Cervical Aplasia (U2 Sec. ESHRE/ESGE Classification)with Isolated Mullerian Remnants: Combined Hysteroscopic and Laparoscopic Treatment

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Background

To report a combined hysteroscopic and laparoscopic treatment of a complete uterine septum with unilateral cervical aplasia (U2 sec. ESHRE/ESGE Classification) (formally named Robert's uterus) with isolated mullerian remnants . Robert's uterus is characterized by uterine septum dividing the endometrial cavity asymmetrically with non communicating hemiuterus . It has always been described as isolated without any associated anomaly.

Methods

A 30 years old woman was referred to our Department for dysmenorrhea and primary infertility. The hysterosalpingograhy showed a hemiuterus with only one patent fallopian tube; the 2/3D ultrasonography showed a normal uterus , with a right hemicavity communicating with a single cervix and a left cavity not communicating with the right cavity and the cervix; a suspicious complex mass contiguous to posterior uterine wall, in the isthmic area, was also diagnosed. At hysteroscopy a complete uterine septum with unilateral cervical aplasia was identified. The laparoscopic view showed a single normal uterine body with multiple myomas and a pseudo-cystic lesion in postero-lateral isthmic area. A hysteroscopic longitudinal section of the asymmetrical septum with a 5Fr bipolar electrode was performed with under laparoscopic control until the left hemicavity was not opened and the left ostium has been showed. The cystic lesion was opened with laparoscopic approach and no communicating with cervical canal and vagina was observed.

Results

A single normal endometrial cavity with both tubal ostium was performed .The cystic lesion was removed .

Conclusions

The use of 3D ultrasound and MRI in combination with the new ESHRE/ESGE classification system gives the opportunity to have a precise representation of the female genital anatomy even in the presence of complex anomalies. The presence of Mullerian remnants is a rare entity and needs adequate recognition and treatment. The combined hysteroscopic and laparoscopic approach offers unique opportunity for its treatment.

http://player.vimeo.com/video/130477402?autoplay=1

ES24-0278
Hysteroscopic Surgery + Laparoscopic Surgery

Single Incision Laparoscopic Cystectomy of a Large Cystadenoma in an Obese Woman with BMI 39

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Background

Obesity increases the difficulty in single incision laparoscopic cystectomy because it is not easy to perform trocar entry into the abdomen, while the length of the laparoscopic instruments is often insufficient.

Methods

A 27-year-old nulliparous woman of weight 99kg height 1,59(BMI–39) was diagnosed with a 10x9x8cm ovarian cyst, confirmed by ultrasound and MRI, and underwent single incision laparoscopic cystectomy through the umbilicus. The surgery was performed according to the traditional laparoscopic cystectomy method. The operating time was 136min and the blood loss was approximately 50ml. Histopathology revealed cystadenoma.

Results

Furthermore obesity decreases the operative field due to the presence of large amounts of fat and increases intraabdominal pressure, thus requiring higher insufflation pressure to accomplish the laparoscopic procedures, which may lead to increased absorption of CO_2 into the circulation. At last it requires a longer operating time. The presence of a large ovarian cyst in an obese woman reduces furthermore the working place. With this video we present the single incision laparoscopic removal of a large ovarian cyst.

Conclusions

This case suggests that single incision laparoscopic removal of a large cyst in very obese women is a feasible alternative to traditional laparoscopy.

http://player.vimeo.com/video/129863374?autoplay=1

ES24-0286
Hysteroscopic Surgery + Laparoscopic Surgery

Laparoscopic Sacropexy: Proposal of a Nerve Preserving Technique

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Background

The subjective outcome of laparoscopic sacropexy is not as satisfactory as its anatomic outcome. Indeed, the procedure is associated with obstructed defecation syndrome (ODS) in 10-50% of cases. We carried out an anatomoclinical study which demonstrated the correlation between the iatrogenic lesion of the autonomic nerves during sacral promontory (SP) dissection and postoperative ODS, identifying the fibers involved in the caudal part of the superior hypogastric plexus (SHP).

Methods

On the basis of this study data, our department subsequently adopted a modified sacral dissection technique that we called “nerve preserving”(NP).This procedure is performed in a standardized manner. We use one 10 mm umbilical trocar, two 5-mm lateral ports and a 10-mm sovra pubic trocar. NP sacral dissection technique requires the identification of four anatomical landmarks: the aortic bifurcation (AB), the mesosigma insertion (MI) on the SP, the SP and the right common iliac artery (rCIA). An imaginary outline of the dissection triangle is drawn in the right lumbosacral spine by the intersection of three straight lines: one lying along the aortic axis from the AB to the SP (longer cathetus), the other along the SP from the MI to the rCIA (shorter cathetus) and the last one along the rCIA (hypotenuse). The peritoneum is raised and opened medially to the rCIA about 20 mm above the SP (L2). A blunt dissection with latero-medial approach is then carried out slightly medially and then caudally towards the promontory. Once the double layer of visceral fascia covering the SHP has been medialized, the prevertebral fascia is opened up to the periosteum. The cranial aspect of the mesh is secured by tacks at this level. The procedure then follows the classical steps.

Results

There were no major intraoperative complications and no longer operative times.

Conclusions

Our nerve preserving technique seems to be both effective and safe.

http://player.vimeo.com/video/129884882?autoplay=1

ES24-0309
Hysteroscopic Surgery + Laparoscopic Surgery

Incidental Finding of Well Differentiated Papillary Mesothelioma of the Fallopian Tube: a Rare Differential diagnosis of Endometriosis at Laparoscopy

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Background

Well differentiated papillary mesothelioma(WDPM) is a mesothelial tumour that occurs in the peritoneum but rarely on the fallopian tube. Unlike malignant mesothelioma it is not thought to be associated with asbestos exposure. Its natural history is poorly understood and its malignant potential is uncertain. There are currently insufficient evidence to support surgery, chemotherapy or radiotherapy to improve its prognosis. We present a case of incidental finding of WDPM during investigation of chronic pelvic pain associated with deeply infiltrating endometriosis.

Methods

Laparoscopic excision of left fallopian tube was performed after unusual appearance of the left fallopian tube was noted during diagnostic laparoscopy. Pictures of fallopian tube with WDPM is shown and a video demonstrates excision of pelvic side wall peritoneum using monopolar diathermy and scissors. Literature search was conducted on PUBMED and EmBase.

Results

1 case report of WDPM of the fallopian tube was identified in our literature search. WDPM is thought of be of low malignant potential but malignant transformation has been reported up to 13 years after initial diagnosis. In our case we recommended a repeat laparoscopy with multiple peritoneal biopsy to exclude multifocal disease and to guide further management.

Conclusions

This case highlights the importance of histological diagnosis before a diagnosis of endometriosis is made. In this patient there were obvious features of deeply infiltrating endometriosis affecting the pelvic side wall peritoneum and rectovaginal septum. However the appearance of the fallopian tube was unusual and histology showed an unexpected diagnosis of WDPM.

http://player.vimeo.com/video/129940344?autoplay=1

ES24-0400
Hysteroscopic Surgery + Laparoscopic Surgery

Twisted Ovarian Cyst - Saving the Ovary.

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Background

Ovarian torsion due to a cyst frequently happens in the younger age group, where the ovarian function is essential for fertility. Sometimes the delay in surgical intervention leads to significantly reduced or totally absent blood flow in the ovary, creating a dilemma of conserving the ovary or removing it. The bluish black physical appearance of the ovarian cyst indicates absent flow. Untwisting and anchoring the ovary does not create any harmful effect, with the rarest of chance that the new collateral blood supply may establish the ovarian function again.

Methods

For cases of twisted ovarian cysts which required subsequent fertility, at this centre, the protocol established is to untwist the ovary, and anchor the ovary to the lateral pelvic wall with two simple sutures. Irrespective of the number of twists, the duration of the twist, the physical appearance of the ovary and the size of the ovarian cyst.

Cystectomy was avoided as it was difficult to differentiate between the healthy tissue and the cyst tissue. If required, patient was counselled for a second sitting of the surgery for cystectomy once the blood supply was established.

After untwisting, the ovary was anchored to the lateral pelvic wall with two sutures, one in the ovarian fossa, other close to the infundibulopelvic ligament area. Both sutures were placed after carefully avoiding the ureter. This was to ascertain the furthur incidence of torsion did not happen.

The contralateral side ovary was also anchored to the lateral pelvic wall as a precautionary measure.

Results

In all cases the patients had a normal post op recovery. The ovarian blood flow was assessed at the end of three and six months with colour doppler. In half the cases, the ovarian functionality was seen. Follicular development was documented on sonography. In half the cases, the ovary shrunk significantly after three months and became atrophic, with no follicular development. Some cases did not have blood supply reforming in the ovary.

Conclusions

The possibility of having a normal ovarian function after untwisting and anchoring the ovary even after a long standing torsion indicates that in all twisted ovarian cysts, the preference should be for untwisting and conserving the ovary.

http://player.vimeo.com/video/130014247?autoplay=1

ES24-0270
Hysteroscopic Surgery + Laparoscopic Surgery

Hybrid NOTES Approach to Ovarian Cancer Staging

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Background

Laparoscopic ovarian cancer staging has been widely reported. However, there are few papers concerning combining LESS and NOTES (Hybrid NOTES) for ovarian staging

Methods

From june 12, we have performed hybrid NOTES for ovarian cancer staging in 4 cases of borderline ovarian tumor and 3 cases of infiltrating ovarian cancer. Staging was done, according to FIGO, combining umbilical and vaginal access to perform all the surgical steps. Surgical procedure and operative outcomes are shown

Results

In 4 cases, ovarian borderline cancer was successfully achive, hysterectomy plus bilateral salpingoooforectomy was done by umbilical approach and hybrid NOTES was used for omenetectomy and apendicectomy. IMC 32 + 6 (20-47); Operating time 195,3 + 15,4 min (150-22) and hospital stay 2,25 days + 0,25 (2-3). In 3 cases of infiltrating ovarian cancer, pelvic and para-aortic lymphadenectomy was also performed. NOTES technique and one or two 5 mm ancillary trocars were used for para-aortic lymphadenectomy. IMC 27,3 + 2 (23-32); operating time 250+ 15 min (270-300); Postoperative stay 4,1 + 1,5 days (3-6). Pelvic nodes 13 + 4 (7-16); aortic nodes 10,50 + 2,20 (8-13). There were no intraoperative or postoperative complications

Conclusions

Hybrid NOTES seems to be a feasible procedure for ovarian staging in selected cases

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ES24-0108
Reproductive Medicine and Surgery + Teaching and Training + Urogynaecology

The Value of 2D/3D USG Guidance in Hysteroscopic Septal Resection On Bicorporeal Septate Uterus

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Background

Female genital tract anomalies are common with an estimated prevalence of 4–7% in the general population and even higher in selected populations such as recurrent aborters. Congenital uterine malformations pose a diagnostic challenge in the therapeutic decision-making process. This case demonstrates the usefulness of 2D/3D USG in the management of bicorporeal septate uterus.

Methods

Madam H is a Para 1+1 lady. She had a history of elective lower segment caesarean section for malpresentation and one 2nd trimester miscarriage at 18 weeks of gestation. She presented because of persistent vaginal bleeding after medical evacuation of her 2nd trimester miscarriage. On examination, she was found to have single cervix and vagina. However, she was noted to have 2 endometrial echoes on 2D transvaginal USG examination. The diagnosis of congenital uterine malformation was suspected but the exact classification cannot be defined accurately. 3D USG was performed showing an external indentation at the fundal midline, a long internal indentation at fundal midline 3cm and the septal angle was 96 degree. The diagnosis of bicoporeal septate uterine was made.

Hysteroscopic resection of uterine septum was performed. During hysteroscopy, uterine cavity was entered but the septum cannot be identified. With 2D USG guidance, we found that one cavity was hidden due to the long septum and the obtuse septal angle; it was subsequently identified and entered and the uterine septum removed successfully using both scissors and needle electrode with the aid of 2D USG. 3D USG performed postoperatively showed a residual uterine septum of 1.36cm which was resected completely at a second-look hysteroscopy.

Results

Successful hysteroscopic resection of uterine septum in bicorporeal uterine septum was performed under 2D/3D USG guidance.

Conclusions

A coronal view of the uterus, which is essential for the accurate diagnosis of the malformation subtype, could be difficult to be obtained with 2D USG technique. The reformatted coronal image from 3D ultrasound is an invaluable diagnostic tool due to its ability to visualize the uterine cavity and the external contours of the uterine myometrium and fundus. Intraoperative use of USG guidance on a median sagittal longitudinal section during the hysteroscopic resection of uterine septum minimizes the risk of uterine perforation. Resection should be terminated when the distance between the highest level of the resection and the external surface of the uterus is about 1cm on a median sagittal longitudinal USG scan section. The use of 2D/ 3D USG is highly effective in the diagnosis and the management of congenital uterine abnormalities.

http://player.vimeo.com/video/127745979?autoplay=1

ES24-0176
Reproductive Medicine and Surgery + Teaching and Training + Urogynaecology

Endometrial Osseous Metaplasia: Spontaneous Pregnancy After Hysteroscopic Treatment

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Background

Endometrial osseous metaplasia is a rare disorder that results from the transformation of nonosseous connective tissue into mature bone, usually leading to secondary infertility. The patients can present abnormal vaginal bleeding, menstrual irregularities, pelvic pain and dyspareunia, or be completely asymptomatic. Osseous metaplasia is easily diagnosed by transvaginal ultrasound and can subsequently be confirmed and treated by hysteroscopy. We report a case of cervical and endometrial osseous metaplasia diagnosed in a set of secondary infertility, whose hysteroscopic treatment led to a spontaneous pregnancy.

Methods

A clinical case with surgical hysteroscopic treatment is presented

Results

A 30 year-old woman with a secondary infertility of 60 months, and a miscarriage in her teen years, was diagnosed with endometrial synechiae and osseous metaplasia on transvaginal ultrasound. The hysterosalpingography was compatible with the diagnosis. An inpatient hysteroscopy under general anesthesia was performed, with removal of all bones plaques, synechiae lysis and restoration of a triangular endometrial cavity. In result, a spontaneous pregnancy occurred 2 months after.

Conclusions

Osseous metaplasia is a disorder whose recognition is of great importance, since it constitutes a treatable cause of secondary infertility, successfully addressed by minimally invasive endoscopic surgery.

http://player.vimeo.com/video/128009734?autoplay=1

ES24-0256
Reproductive Medicine and Surgery + Teaching and Training + Urogynaecology

Blind Secondary Uterine Cavity with Functional Endometrium: an Unclassified Case (U6 C0 V0).

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Background

Case video presentation of the diagnosis and laparoscopic management of a blind secondary uterine cavity with functional endometrium (U6/C0/V0 by ESGE classification).

Methods

A 26 year old woman presented in our clinic for dysmenorrheal. On an ultrasound scan a left ovarian endometriotic cyst was identified and also, apart from the main uterine cavity, a secondary cavity filled with hypoechogenic fluid. Patient was booked and at the theater a hysteroscopy was performed, where a normal uterine cavity with both tubal ostia was seen without any evidence of communication with another cavity. Further on laparoscopy the frontal uterine wall was dissected over a bulging point and a secondary blind two centimeter in diameter uterine cavity was revealed full with degenerated blood. The lining of the cavity was functional endometrium and was removed and further ablated. Laparoscopic stitches were placed and the cavity was closed. Moreover a left ovarian cystectomy was performed. Cervix and vagina were checked with normal anatomy.

Results

Pathology report came as functional endometrium. The combination of hysteroscopic and laparoscopic findings gave the diagnosis of a secondary non-communicating uterine cavity, neither to the primary uterine cavity, nor to any of the fallopian tubes. Patient was further treated with GnRH analogues for a period of 6 months.

Conclusions

According to the new ESGE classification of uterine malformations this blind secondary cavity is a rear unclassified case-category U6/C0/V0 with objective difficulties in its identification and surgical management.

http://player.vimeo.com/video/129696669?autoplay=1

ES24-0493
Reproductive Medicine and Surgery + Teaching and Training + Urogynaecology

The Road Not Taken - is High Risk Surgery the Definitive Therapy in Selected Cases of Essure Failure?

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Background

Patients with severe endometriosis are often expected to have dense adhesions leading to challenging and high risk laparoscopic procedures, when those are chosen to be attempted. Up to 30% of couples presenting with infertility are diagnosed with hydrosalpinges, a condition shown to reduce by half live birth rates in women undergoing in vitro fertilization (IVF) treatment when compared to infertile women without hydrosalpinges. Hydrosalpinges treatment procedures improve IVF outcome. Traditionally, treatment options are laparoscopic salpingectomy or proximal tubal occlusion. In cases with high risk for viscous and/or vessel injury (as in the case of severe endometriosis and severe adhesions), it has been proposed that the use of hysteroscopic tubal occlusion be preferred.

Methods

In this video session I'll present our center's experience of 3 patients treated for infertility (video from 2 patients). All presented hydrosalpinges together with high risk factors for laparoscopic surgery (all had undergone previous surgery), including prior laparotomies with dense adhesions. Hysteroscopic tubal occlusion with Essure device was attempted and failed in these cases with subsequent IVF treatment.
Upon referral to our tertiary endometriosis center, all patients eventually underwent laparoscopic surgical treatment for hydrosalpinges combined with full endometriosis or adhesiolysis surgery as needed. This was followed by successful fertility treatments thereafter. Major surgical complications were not observed.

Results

Post laparoscopic surgery, all three are pregnant at first IVF cycle treatment. One ongoing pregnancy and two births (one cesarean section and one normal vaginal delivery).

Conclusions

This case series surfaces a dilemma of what to do when hysteroscopic tubal occlusion fails in high surgical risk women desiring fertility, and also suggests that in a sub group of infertile couples with hydrosalpinges and endometriosis or dense adhesions, laparoscopic surgical treatment of endometriosis or adhesiolysis and hydrosalpinges combined, may be superior to hysteroscopic treatment of hydrosalpinges alone.

http://player.vimeo.com/video/130042510?autoplay=1

ES24-0140
Reproductive Medicine and Surgery + Teaching and Training + Urogynaecology

Foley Catheter and Ureteral Catheter Assisted Repair of Vesicovaginal Fistula

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Background

This patient was a 39 y/o female. Her parity history was G3P2A1, both NSD. She had adenomyosis with severe dysmenorrhea and have to receive analgesic injection for pain control. Therefore, we arranged laparoscopic total hystrectomy(LTH). However, after discahrge, patient had involuntary vaginal watery discharge. And after examination, there's vesicovaginal fistula(VVF) formation. So we performed transvaginal repair of VVF with ureter catherization and Foley catheter assist 3 months after first surgery.

Methods

The team members includs Dr. Jia-Chun Yuan, Dr. Yi-Yen Chen, Dr. Chun-Kai Chou, Yin-Yi Chang, and Dr. Wu-Chou Lin, from department of obstetric and gynecology in China Medical University Hospital. We performed this operation via vagina. First, we inserted Foley catheter from vaginal end of fistula into the urinary bladder. Then, we used cystoscopy to check if Foley balloon was in the bladder and put ureteral catheter through orifice as a guide for preventing ureteral injury. Back to vagina, Foley catheter was slightly pulled to keep fistula opening visible. And we made two layer closure in different direction which were longitudical and transverse.

Results

The surgery underwent smoothly. After that, patient had no more urine leakage from vagina. And this paitent was discharge one day after operation.

Conclusions

This method offered a good operation filed for VVF repair and we can well locate the opening of fistula. Besides, ureteral catherter offered us a better way to prevent uretral injury, like being sutured. Therefore, with the assist of Foley ballon and ureteral catheterization, we can performed VVF repair with less time and do it more safely.

http://player.vimeo.com/video/127926101?autoplay=1

ES24-0411
Reproductive Medicine and Surgery + Teaching and Training + Urogynaecology

An Animal Model, the Ewe, for Training and Teaching Pelvic Organ Prolapse Vaginal Surgery

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Background

This video shows how old multiparous ewes can be used to do all surgical techniques to treat pelvic organ prolapse by vaginal route.This video shows how old multiparous ewes can be used to do all surgical techniques to treat pelvic organ prolapse by vaginal route.

Methods

The feasibility of this animal model has been achieved after performing vaginal surgery on 3 fresh female sheep cadavers. All three animals had significant stage 3 or 4 POP. A CT-Scan of the pelvis of one animal was done showing similitudes to human female. This led to a vaginal POP surgery on an alive ewe under general anaesthesia.

Results

The video shows the POP-Q examination of a stage 4 prolapse, the comparison between the pelvis of ewe and female human on CT scan. Surgical procedures to treat enterocele, McCall culdeplasty, uterus fixation to sacrospinous ligament, Richardon operation and levator ani myorraphy are shown for apical and posterior repair. For anterior repair, a mesh technique showing on one side lateral fixation with trans-obturator arm and on the other side fixation to arcus tendineus fascia pelvis with a suturing device and sliding Roeder knot.

Conclusions

The long version of this video will be used in our university to provide audio-visual support to surgeons and fellows while doing these surgeries on ewes under general anesthesia.

http://player.vimeo.com/video/130017046?autoplay=1

ES24-0539
Reproductive Medicine and Surgery + Teaching and Training + Urogynaecology

Suturing in Difficult Angles: From Pelvic Training to Live Surgery

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Background

The goal of this video is to show the training models used to mimic the toughest suture angles in complex laparoscopic surgeries.

Methods

The most difficult angles suture considered in this video training are:1) at the vagina suture with uterus, 2) at the puborectal muscle in sacrocolpopexy, 3) at the sacral bone in sacrocolpopexy, 4) knot in Cooper ligament at Burch bladder suspension 5) ureter anastomosisThis suture angles are considered difficult to implement because of the need of the correct positioning of the needle, the low mobility of the tissues, the care with anatomical structures or the little space to do the knotting

Results

This video shows that the previous training in EVA models, can mimic the situations encountered in the live surgery, giving greater security and experience to the surgeon

Conclusions

EVA training models can mimic difficult surgical situations

https://vimeo.com/user12240242/review/130544496/58991f492a

ES24-0174
Reproductive Medicine and Surgery + Teaching and Training + Urogynaecology

Laparoscopic Unilateral Hysterosacropexy Using an MRI Visible Narrow, Needled, Mesh Sling with a Reusable Tunnelling Device for the Treatment of Pelvic Organ Prolapsed

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Background

Surgical treatment for pelvic organ prolapse (POP) underwent significant changes in recent years. The traditional vaginal hysterectomy does not address the underlying pathophysiology of poor connective tissue support, which may result in a higher incidence of recurrence. Vaginal meshes that were used extensively were simplified to mesh kits and following the FDA warnings regarding their safety, they have been widely abandoned. A change in practice patterns among urogynecologists has been noted reviving the use of sacropexy.

Abdominal sacropexy is considered the “gold standard” in POP surgery. It is associated with high success rates of over 90% with low recurrence rates. The laparoscopic sacropexy seems to achieve similar success rates in addition to having advantages of less blood loss, reduced morbidity, and shorter hospital stay.

Nevertheless, complications such as new onset bowel, voiding, and sexual dysfunction, de-novo stress incontinence, obstructed defecation syndrome and mesh erosion after sacropexy have been reported and may have a negative effect on patient’s satisfaction.

One of the greatest technical challenges in performing this procedure is creating a sub-peritoneal tunnel for the mesh. Optimizing the procedure in order to obtain better anatomic reconstruction and choosing the material according to its biomechanical characteristics are a challenge that surgeons are faced with in an attempt to minimize mesh-related complications.

Methods

We created a video depicting this novel technique for laparoscopic unilateral hysterosacropexy and incorporated in the video animation as well as ultrasound and MRI captures.

Results

This video article demonstrates a novel technique to perform laparoscopic sacropexy for women with POP using a reusable helical tunnelling device and an MRI visible narrow, macroporous monofilament, mesh sling with a needle at the end.

Conclusions

This novel procedure shows great promise in the treatment of POP. This procedure apart from having the advantages of a minimal invasive surgery, is easy to learn, easy to perform, has shorter operating time, has a minimal mesh area reducing the risk of erosion and is MRI visible. This new technique may be used for young patients wishing to preserve the uterus as well as for older patients following hysterectomy.

http://player.vimeo.com/video/127978101?autoplay=1

ES24-0194
Reproductive Medicine and Surgery + Teaching and Training + Urogynaecology

Laparoscopic Sacrocolpopexy and Rectopexy in a Patient with Uterine and Concomitant Severe Rectal Prolapse

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Background

Laparoscopic sacrocolpopexy has become a good option in the treatment of pelvic organ prolapse (POP) especially in the apical compartment as more and more data is available today showing an excellent anatomical and functional outcome even for the long term follow up. Rectal prolapse can quite frequently occur simultaneously with uterine or vaginal wall prolapse and is a challenging problem for the Urogynecologic Surgeon. Laparoscopic rectopexy seems to be the method of choice for the treatment of symptomatic rectal prolapse. There is lack of data for the optimal treatment of concomitant rectal and uterine prolapse. In our experience of 10 cases in the last few years, laparoscopic sacrocolpo-rectopexy is a good option for the treatment of this unusual problem.

Methods

This video shows our technique of laparoscopic sacrocolpo-rectopexy in a 66 year old woman with a symptomatic rectal prolapse, leading to stool incontinence combined with stool outlet syndrome, as well as stage II rectocele , stage II uterine prolapse and stage I cystocele according to the IUGA–ICS classification. To achieve good quality of life for this sexually active woman, we suggested a laparoscopic intervention consisting of sacrocolpopexy and rectopexy. After dissecting the vesico-vaginal space down to the trigone of the bladder and the recto-vaginal space down to the sphincter ani muscle, the rectum is completely mobilized without compromising its vascularization. The anterior mesh is placed under the bladder and sutured to the vagina. The posterior mesh is attached to the pubococcygeal muscle, the dorsal vaginal wall, the sacrouterine ligaments and the anterior wall of the rectum. The rectal fixation is done with seromuscular sutures. For all sutures we use ethibond 2-0 non-resorbable filaments. Both meshes are finally attached to the longitudinal ligament at S1 so tension free fixation is achieved.

Results

Final examination in this patient after 2 and 6 months showed no signs of any prolapse and complete relieve from stool outlet symptoms. Only minor flatal incontinence persisted. There was no de novo stress urinary incontinence.

Conclusions

In absence of high level evidence, our experience of 10 cases shows, that a combination of laparoscopic sacrocolpopexy and rectopexy is well feasible and can lead to favorable outcome for patients with concomitant rectal prolapse and POP.

http://player.vimeo.com/video/128298611?autoplay=1

ES24-0547
Reproductive Medicine and Surgery + Teaching and Training + Urogynaecology

A Modified Technique for Laparoscopic Sacrocervicopexy in Woman Wishing Uterine Preservation

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Background

To present a modified technique for laparoscopic sacrocervicopexy for the surgical treatment of uterine prolapse

Methods

We performed a modified technique for laparoscopic sacroservicopexy procedure in which the uterosacral ligaments are bilaterally reinforced or replaced by the implant at the patient with total uterine prolapse who desires fertility preserving surgery.

We used 100% polyvinylidene fluoride monofilament mesh which is a new mesh technology providing higher biocompatibility and biostability.

At the beginning of surgical procedure, peritoneal dissection was performed above the sacrouterine ligament and the mesh was fixed on the cervix. The departure of the left and the right uterosacral ligament were grasped, made an incision and a channel was dissected with grasper both on the right and the left side. The mesh was pulled through the channel to the outside and was fixed on the 2nd sacral vertebra (S2) with tucker. Different from conventional sacrocervicopexy, the mesh was bilaterally fixed to the sacral vertebra after pulling through the retroperitoneal channel.

Results

The operation was completed without any complication and the uterus was pulled its anatomic location successfully.

Conclusions

This new modified technique seems to be more anatomical and functional option at uterine prolapse in woman wishing uterine preservation.

http://player.vimeo.com/video/131766732?autoplay=1

ES24-0538
Reproductive Medicine and Surgery + Teaching and Training + Urogynaecology

A Laparoscopic Management to Control of an Acute Hemorrhage for a Post Partum Uterine Arteriovenous Malformation : Bilateral Triple Arterial Ligation, and Modified Cho Technique Suture

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Background

Uterine arteriovenous malformation (UAVM) is an uncommon, potentially life-threatening condition. It may cause heavy uterine bleeding. Angiography confirms the diagnosis and allows concomitant uterine embolization. Embolization is the primary therapeutic method. In case of failure of this first line treatment with heavy bleeding, an open approach is still the most common approach. We report the first description of laparoscopic conservative treatment with triple ligation and modified CHO technique suture .

Methods

We reported a case of a 28 years-old-woman, gravida 1, para 1, who gave birth six weeks earlier, which presented acute severe postpartum hemorrhage, controlled first by medical treatment. A US was performed which confirmed the diagnosis of UAVM and a retained product of conception. During angiography, the patient had an uterine artery embolization. This procedure failed and, eight hours after, she had a new severe acute haemorrhage (more than 1 liters), with hemodynamic impact. After stabilization of hemodynamic parameters, a laparoscopic approach was decided, A bilateral triple arterial ligation was performed. Important anatomical landmarks were identified: iliac vessels, uterine artery and ureters. Uterine artery was ligatured first below the common trunk with the umbilical artery, then round ligament and finally utero-ovarian ligament by extraporeal knots using absorbable sutures. Finally, we ligatured the UAVM itself by transfixiant absorbable suture of the uterus, with antero-posterior suture technique (straight needle of vicryl 1 ®), an equivalent of modified CHO technique suture by laparoscopy.

Results

Cases of unsuccessful embolizations are unusual. Selective ligation of the vessels supplying the malformation associated transfixing suture by laparoscopy could be an effective treatment option.

Conclusions

The present report describes a ligation of UAVM by laparoscopy. It is the first case in the literature from our knowledge. Our method is suitable to treat UAVM conservatively.

http://player.vimeo.com/video/130154459?autoplay=1

SELECTED FOR POSTER PRESENTATION (40)

ES24-0001
Selected Posters

Pulmonary Benign Metastasizing Leiomyoma of the Uterus: a Case Report.

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Objectives

Benign metastasizing leiomyoma (BML) is an infrequent condition, first reported by Steiner in 1939. Nodular metastases containing smooth muscle cells arising from the uterus are most commonly presented in the lungs and rarely found in the abdominal cavity, scars, heart, bone, breasts or skin. The etiology of BML remains controversial. The lesions are slow-growing and usually have favourable prognosis. The nodules are positive for estrogen and the progesterone receptors, indicating their uterine origin. Most of BML cases have been detected during routine chest X-ray examinations. We present a case report of BML in an asymptomatic 44-year-old female patient, who underwent laparoscopic assisted supracervical hysterectomy in our hospital.

Methods

At the age of 34 years, the patient underwent abdominal myomectomy due to anaemia, but not all nodules were removed. Six years later, she underwent laparoscopic assisted supracervical hysterectomy because of recurrent anaemia and intramural and submucosal uterine leiomyomas. The weight of her uterus was 288 g. Pathohistologically, the specimen presented as a uterine smooth muscle tumor without evidence of malignancy. Three years later, at the age of 43, laparoscopical salpingo-ophorectomia was performed due to a 6-cm endometrioma in the right ovary. Additionally, endometriotic lesions on the left ovary were coagulated. The pathohistological analysis confirmed the diagnosis of endometrioma. In the same year, during a routine chest X-ray examination, multiple well-defined soft tissue foci of 2-10 mm in diameter were detected in both lungs. After 1-year follow-up, at the age of 44, CT-scan of the chest confirmed the biggest focus of 44 mm. Surgical lung biopsy was performed and the diagnosis of BML was confirmed.

Results

The patient received gonadotropin-releasing hormone (GnRH) agonist therapy with goserelin acetate for 6 months. Positive dynamics was seen on CT-scan, where the lesions, formerly undergoing progressive enlargement, remained unchanged in size. The patient was recommended to continue the treatment, but because of side effects (flushing and profuse sweating), she abandoned it. In five months of being without GnRH treatment, a new CT-scan revealed an increase of the foci by 5 mm. The patient also complained that the shortness of breath occurs more easily. GnRH treatment was re-established. The patient will continue to be followed.

Conclusions

BML is a scarce condition and it should be always considered in women with a previous history of uterine leiomyoma. GnRH therapy may be tried to define the medial response of the tumour.

ES24-0016
Selected Posters

A Case Controlled Study Comparing Harmonic Scalpel Versus Electrosurgery in Laparoscopic Myomectomy

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Background

Laparoscopic myomectomy (LM) is considered as time-consuming, bloody and skillful procedures. Conventional bipolar forceps provides effective coagulation but uncontrolled thermal spread and charcoal formation. Harmonic scalpel based on an ultrasonically activated shear, permits no electric transference and minimal lateral thermal damage. Besides, it coagulates and cuts simultaneously and is approved for vessels up to 5 mm in diameter. In the present study, we compare the harmonic scalpel versus conventional electrosurgery in LM

Methods

We performed retrospective chart review of 591 women with symptomatic uterine fibroids underwent LM. Thirty-three cases of LMs with harmonic scalpel were compared with a matched control group with conventional electrosurgery. Outcome measures for both groups were studied comparatively in terms of the amount of blood loss, requirement of blood transfusion, length of operative time, and hospital stay.

Results

The postoperative length of stays was significantly lower in harmonic group than in electrosurgery group (2.0 ± 0.4 days vs. 2.5 ± 0.7 days, $p< 0.001$). But the hospital charges were significantly higher in harmonic group than in electrosurgery group (39207.7 ± 9315.0 new Taiwan dollar (NTD) vs. 24078.4 ± 11051.3 NTD, $p< 0.001$). Length of operation, blood loss, hemoglobin decrease, requirement of blood transfusion and hospitalization time were not significantly different.

Conclusions

Our results indicate the harmonic scalpel is more effective in LM comparing with conventional electrosurgery. Harmonic scalpel has advantage over electrosurgery in less postoperative hospital stay but disadvantage in extra charge. Harmonic scalpel may offer an alternative option for patients undergoing LM.

ES24-0020
Selected Posters

Acute Abdominal Pain: Spontaneous Heterotopic Pregnancy Managed by Laparoscopy - Case Report

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Background

Heterotopic pregnancy refers to the presence of simultaneous pregnancies at two different implantation sites. In natural conceptions, the estimated incidence of heterotopic pregnancy is 1 in 30000 pregnancies. The clinical presentation of heterotopic pregnancies show the symptoms of threatened abortion and ruptured ectopic pregnancy. The diagnostic evaluation can be difficult because of misdiagnosis of additional ectopic pregnancy. The stable patient has managed by minimally invasive operation, utilizing advantage of laparoscopy. Recently operative laparoscopy is safe in most women with hemodinamic instability.

Methods

Case report: A 34 year old G4P1 woman was admitted to the emergency department at the Petz Aladár County Teaching Hospital on 02 februar, 2015. She presented 6 weeks menstrual age and complaining righ-sided lower abdominal pain a day ago and generally feeling unwell. On examination she was found in hemorrhagic shock (Class I-II) to have a pulse rate of 100/min and blood's pressure of 95/70 mmHg. A transvaginal ultrasound was performed, which revealed a single live intrauterin fetus having a CRL of 18 mm and right side inhomogen adnexal mass with large amount of intraperitoneal fluid. She was counseled for urgent operative laparoscopy. Laparoscopic salpingectomy was performed.. The patient made normal recovery and was discharged the following day. The ultrasound examination confirmed viable intrauterine pregnancy.

Results

Presence of intrauterine gestation makes difficult the diagnosis of heterotopic pregnancy. Ectopic pregnancy is usually treated surgically, whereas the intrauterine pregnancy is expected to develope normally. Early diagnosis and following laparoscopic treatment provide good outcome compared laparotomy. Futhermore laparoscopic management avoids the risk of uterine handling and drying from open procedure, which may cause postoperative spontaneous abortion. Improved anesthesia and cardiovascular monitoring, together advanced laparoscopic surgical skills make possible operative laparoscopy for ectopic pregnancy even in women with hemodynamic instability.

Conclusions

Heterotopic pregnancy is becoming more common as the overall incidence of ectopic pregnancies are increasing. The diagnosis is difficult and often delayed. In patient risk factors for ectopic pregnancy accurate ultrasound examination of the both adnexa must be made. Operative laparoscopy is safe and sustainable in most women with hemodynamic instability. Under operation the minimal manipulation of uterus should be a standard form treatment in heterotopic prengnancy, resulting survival of the intrauterine fetus.

ES24-0038
Selected Posters

Importance of Measuring of Antimullerian Hormone(AMH) Levels and CA 125 in Assessing the Success of Surgical Treatment of Endometrioma(S)

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Background

Six month follow-up study. To investigate the impact of laparoscopic stripping surgery of endometrioma(s) on ovarian reserve in patients with unilateral(uni) and bilateral(bil) endometrioma(s). To evaluate clinical significance of changes in the levels of serum Antimillerian hormone (AMH). Changes in the conc. of CA 125 as a marker of inflammation.

Methods

Prospective study,52 reproductive- aged women (18-42 years) underwent laparoscopic stripping surgery for endometrioma(s). AMH and CA 125 levels were measured on third day of the cycle before the operation, and 6 months after the operation. Good ovarian reserve is defined as a value of AMH > 1ng/mL.Results were analyzed by standard software SPSS.

Results

Unilat. endometrioma was present in 32 patients(61%) and bilat. in 20 patients (38,5%). The significant decrease of mean serum AMH conc. was recorded in the first six months period of time in patients with uni and bil endometrioma(s) (unilat: mean± SD: 2,48 ±1,82 pre-op. vs. 1,17± 1,01 post-op.,(p<0.001); bilat: mean± SD: 2.33±1.76 pre-op vs.0.99± 0.87 post-op (p<0.001). There was statistically significant increase in the frequency of patients with AMH≤ 1ng/mL sixth months after operation in the both group of patients with uni and bil endometriomas (p<0.001).There was statistically significant decrease of mean conc. of CA 125 sixth months after the op (mean± SD: 53.6±62.9 pre-op vs. 22.5± 18.3 post-op. (p<0.001).Conc. of CA 125 pre-op was statistically higher in patients with bilat endometriomas. (uni: mean± SD:37.9± 31.1 pre-op vs. 20.1± 14.9 post-op and bil: mean± SD: 77.1± 88.1 pre-op vs. 26.5± 22.8 post-op; (p=0.025).There was no statistically significant difference in the value of CA 125 in patients with uni and bil endometrioma(s) sixth months post-operatively (p=0.302).

Conclusions

Sensitivity of CA 125 in the diagnosis of endometriosis is too small(2).Much more important is the role of CA 125 in the assessment of disease recurrence or success of surgical treatment. The authors found that the preoperative CA 125 did not differ statistically significantly between patients, but that the postoperative CA 125 was significantly lower in women who managed to become pregnant. (4).Several centers reported a high accurancy of disease recurrence when after surgical treatment followed by value of CA 125(5). Despite all surgical efforts to be atraumatic, laparoscopic endometrioma stripping surgery necessarily decreases AMH levels. The largest decline of ovarian reserve occurs directly as a consequence of the surgery and maintained over time, especially in women with bilateral endometriomas.This data should be taken into account in infertile patients who are preparing for cystectomy. It is likely that the future will be in search of new sources of energy that will have a better effect on the preservation of healthy ovarian tissue.

ES24-0042
Selected Posters

Prospective Study of the Occurrence of Pneumoperitoneum Pain in Gynecologic Laparoscopy

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Background

Pneumoperitoneum pain sometimes depresses a QOL after laparoscopy. Few reports investigate the background of its occurrence, therefore we analyze it from the questionnaire to the patients undergoing laparoscopy.

Methods

We analyzed 197 patients undergoing gynecologic laparoscopy and answering to a questionnaire since January 2014 to March 2015 in our hospital. The occurrence of peritoneum pain was defined as the increase of NRS of shoulder pain at 3 days after laparoscopy, compared to preoperative score. The patients were classified as the operation methods, age, BMI, the operation time, and the amount of hemorrhage. Laparoscopic surgeries were all performed under 10-12 mmHg of pneumoperitoneum pressure of CO2.

Results

The average of age was 41.1 years old, 17-72 years old in range, and the occurrence rate of pneumoperitoneum pain was 23.9%. As for the operative methods, LM was performed in 66 cases, TLH 73, adnexal operation (adnexectomy, ovarian cystectomy, ectopic pregnancy) 56, and malignancy operation with lymph node resection 2. The rate of pneumoperitoneum pain incidence (PPI) were 19.7%, 20.5%, 32.1% and 50.0% in each method respectively. As for age, PPI was 42.1% in the group under 29 y.o., 28.1% in 30-39 y.o., 24.7% in 40-49 y.o., and 0% over 50 y.o., which showed significant difference. As for BMI, PPI was 32.6% (under 20), 23.7% (20-25), 16.7% (25-30) and 0% (over 30). As for the operation time, PPI was 25.9% (under 59 min), 22.1% (60-119 min), 24.5% (120-179 min) and 29.4% (over 180 min). As for the amount of hemorrhage, PPI was 25.4% (under 99ml), 36.7% (100-199 ml), 10.0% (200-299 ml), and 9.5% (over 300 ml).

Conclusions

Pneumoperitoneum pain occurred in 23.9% three days after gynecologic laparoscopy. It was not influenced with the operation method, BMI, the operation time and the amount of hemorrhage, whereas younger age was suggested to be a risk factor of pneumoperitoneum pain.

ES24-0064
Selected Posters

Laparoscopic Ovarian Drilling in Patients with Polycystic Ovary with High Antimullarian Hormones Undergoing ICSI. Is It a Mandatory Step?

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Background

Laparoscopic ovarian drilling is considered one of the effective tools for treatment of women with polycystic ovarian syndrome. Excessive response to ovarian stimulation is common among hyper-responder patients undergoing assisted reproductive technology ,these patients have a high ovarian resserve with AMH test is of high value. Cycle cancellations and severe ovarian hyperstimulation syndrome (OHSS) may occur if ovarian stimulation done with this high ovarian reserve with high AMH

Methods

The current study is designed to evaluate whether laparoscopic ovarian drilling improves outcomes in patients with polycystic ovary with high antimullarian hormones undergoing icsi

Results

A total of 52 patients with polycystic ovary with high antimullarian hormones undergoing icsi . Group I consisted of 32 patients that underwent laparoscopic ovarian drilling prior to icsi. Group II consisted of 20 patients that underwent only icsi without ovarian drilling. both groups were stimulated by the same antagonist protocol, cycle outcomes of groups were compared. FollowingLaparoscopic ovarian drilling , significant reduction in AMH levels were detected in group I (3.75 ng/mL to 2.25 ng/mL). Clinical pregnancies were similar among groups (39,26% versus 24.8% $p = 0.62$). There was no cycle cancellation in Group I, whereas there were 6 cycle cancellations observed due to OHSS in Group II.

Conclusions

Laparoscopic ovarian drilling in patients with polycystic ovary with high antimullarian hormones undergoing icsi might offer enhanced fertility outcomes and may reduce the likelihood of icsi cycle cancellation , it is considered to be a mandatory step befor assisted reproduction specially with women with polycystic ovary with a high antimullarian hormone

ES24-0071
Selected Posters

Clinical Evaluation of Amniontic Scaffold Ballon After Transcervical Resection of Moderate and Intensive Degree of Intrauterine Adhesion

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Background

To evaluate the effectiveness of amniotic membrane products transplantation after transcervical resection of uterine adhesion.

Methods

This study was carried out in 47 patients with moderate and intensive degree of intrauterine adhesion who had been treated by TCRA between 2013.6-2013.12. The patients were devided into two groups randomlyï¼Œin group Iï¼Œ21 patients with 8 moderate and 13 intensive intrauterine adhesion were placed amniontic scaffold ballon after TCRA; in group II, 26 patients with 16 moderate and 10 intensive intrauterine adhesion were placed Foley's ballon. The two groups' ballons were taken out after TCRA 7 days. All patients were taken artificial cycle treatment. The uterine suitations and the menstruation of 2 groups were observed in 3 months after TCRA.

Results

In group I and II, the uterine suitations after TCRA 3 months were different. The difference of IUA was significant(P<0.05). In group I , the recurrence rate of adhesion with moderate intrauterine adhesion and were 12.50%(1/8), the recurrence rate of adhesion with stevere intrauterine adhesion were 38.46%(5/13); In group II , the recurrence rate of adhesion with moderate intrauterine adhesion and were 37.50%(6/16), the recurrence rate of adhesion with stevere intrauterine adhesion were 50.00%(5/10). The menstrual improvement of group I was better than than of group II significantly. (P<0.05). The pregnancy rate of group I was 38.10%(8/21), the pregnancy rate of group II was 23.08%(6/26). The difference of pregnancy rate in two groups had no significance(P>0.05).

Conclusions

Small sample observation indicate that amniotic membrane producs used in the treatment of moderate and intensive intrauterine adhesions can improve menstrual, reduce the recurrence rate of adhesion, but the impovement of the pregnancy outcome should be confirmed by large sample.

ES24-0073
Selected Posters

Three Cases of Successful Treatment of Cervical Pregnancy with Dilatation and Curettage Following Laparoscopic Uterine Artery Ligation

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Background

A cervical pregnancy (CP) is an extremely rare ectopic pregnancy, the incidence ranging between 1 in 8000 to 18,000 pregnancies, and CP represents about 0.15% of all ectopic pregnancies. CP may lead to massive hemorrhage and require hysterectomy. We hereby report three cases of CP treated with dilatation and curettage following laparoscopic uterine artery ligation.

Methods

We examined three cases of CP from the medical records.

Results

Case 1: A 42-year-old, G4P1 including three times of spontaneous abortion, foreign country woman was admitted by ambulance car with massive genital bleeding while traveling in Japan. She was diagnosed of CP by transvaginal ultrasonography (TVUS) and MRI following 8 weeks of amenorrhea. A dilatation and curettage following laparoscopic uterine artery ligation was performed without complications.
Case 2: A 39-year-old, G2P0 (two times of spontaneous abortion), woman gave infertility treatment with no symptoms was diagnosed as CP at 6 weeks of gestation. A dilatation and curettage with hysteroscopic ablation following temporal laparoscopic uterine artery ligation was performed successfully.
Case 3: A 35-year-old, G4P3 (two times of CS and one time spontaneous abortion), woman visited our hospital at 6 weeks of gestation, and the diagnosis was CP or cesarean scar pregnancy at 6 weeks of gestation by MRI and TVUS. A dilatation and curettage with hysteroscopic ablation following temporal laparoscopic uterine artery ligation was performed without complications.

Conclusions

We experienced three cases of CP successfully treated with a dilatation and curettage with/without hysteroscopic ablation following temporal or permanent laparoscopic uterine artery ligation. This method may be an effective option in treatment of CP.

ES24-0077
Selected Posters

Hysterosalpingo-foam Sonography (HyFoSy) with Tubal Flushing Increase Chances of Spontaneous Pregnancy

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Background

To evaluate whether the tubal flushing due to HyCoSy (Hysterosalpingo-Contrast Sonography) with ultrasound gel foam as contrast media (ExEm foam gel) (HyFoSy) could enhance the chances of spontaneous clinical pregnancy in women undergoing infertility investigations.

Methods

Infertile patients, who underwent three dimensional (3D) HyFoSy for evaluation of the tubal patency, between 2011 and 2014, in our institution, were included in this study. HyFoSy was performed with ExEm foam gel, an on-label non-embryo toxic ultrasound contrast media containg hydroxymethylcellulose and glycerol. By means of a 5-Fr salpingographic balloon catheter the gel foam was injected in the uterine cavity and through the tubes during 3D trans vaginal sonographic (TVS) examination. All the patients underwent to a follow up by means of a phone interview at 12 months after HyFoSy. Primary outcome was the time of initial clinical pregnancy (defined as a sonographically visible gestational sac) after HyFoSy. Secondary outcomes were spontaneous miscarriage and term and preterm delivery after HyFoSy.

Results

Of the 294 patients who were evaluated during the study period, 157 provided information on their fertility after HyFoSy. Of these 54 (34.4%) patients conceived spontaneously, 15 had a spontaneous abortion, 2 had an ectopic pregnancy, and the other 37 had a live birth. Cumulative pregnancy rate was 10.2% within 1 month after HyFoSy, 29.9% within 6 months and 34.4% within 12 months.

Conclusions

Our results show that in infertile patients, pregnancy rate after HyFoSy is 30% within 6 months. In secondary infertility the pregnancy rate is 38% within 6 months. Tubal flushing due to HyFoSy improves the chance of an embryo implanting and establishing a spontaneous pregnancy.

ES24-0092
Selected Posters

Narrow-band Imaging Hysteroscopy in Diagnosis of Endometrial Lesions

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Background

To investigate the value of narrow-band imaging (NBI) technology for improving the diagnostic reliability of hysteroscopy by studying the application of NBI and white light imaging (WLI) hysteroscopy in the diagnosis of endometrial lesions.

Methods

From March 2011 to November 2013, a total of 213 patients in Minimally Invasive Center of Beijing Obstetrics and Gynecology Hospital with suspected endometrial lesions who were examined with hysteroscopy equipped with the white light mode and NBI modeï¼ŽUsing the pathological diagnosis as the gold-standard, we evaluated the value of NBI hysteroscopy for detecting positive lesions which included endometrial carcinoma and atypical endometrial hyperplasia.

Results

A total of 442 lesions in 213 patients were detected by WLI and NBI hysteroscopy.Simple hyperplasia and complicacy hyperplasia. The sensitivity of NBIand WLI was 79.6%(39/49) and 49.0%(24/49), P=0.003;the specificity of NBI and WLI was 99.0%(389/393)and 97.2%(382/393), P=0.039. Atypical endometrial hyperplasia: Thesensitivity of NBI and WLI was 93.5%(86/92) and 82.6%(76/92), P=0.006;the specificity of NBI and WLI was 99.1%(347/350) and 92.3%(332/350), P=0.001. Endometrial carcinoma: Thesensitivity of NBI and WLI was 98.1%(52/53)and 73.6%(39/53), P=0.000;the specificity of NBIand WLI was 99.0%(385/389) and 97.4%(379/389), P=0.031, in which there was significant difference.

Conclusions

NBI hysteroscopy can improve the sensitivity and specificity of the diagnosis ofendometrial lesions. Hysteroscopic diagnosis has better concordance with pathologicaldiagnosis in the NBI mode.NBI hysteroscopy was easy to be applied in uterine cavity examination and endometrial biopsy with high sensitivity and specificity by detection of themorphology of mucosal capillary vessels. It not only improved the relevance and accuracy of the biopsy, but also reduced the missed diagnosis of endometrial lesions.The more obviouslyendometrial vascular changes, the higher sensitivity of the NBI hysteroscopy has.

ES24-0095
Selected Posters

Rectal Non-Steroidal Anti-Inflammatory Drug for Pain Relief During Outpatient Office Hysteroscopy of Menopausal Women: a Randomized Controlled Trial

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Background

The aim of this study is to evaluate the effectiveness of rectal non-steroidal anti-inflammatory drugs (NSAIDs) prior to office hysteroscopy in terms of pain relief in menopausal patients by using 10-cm visual analog scale (VAS) compared to placebo group.

Methods

Fifty-two menopausal patients were included and randomized into two groups. Group 1 (n=26) received rectal placebo and Group 2 (n=26) received 100 mg diclofenac sodium rectally. Office hysteroscopy was performed with vaginoscopic approach. Patients were asked to record the severity of pain using 10-cm VAS score.

Results

One patient did not receive the allocated intervention and Group 1 and 2 consists of 26 and 25 patients respectively. Mean scores were 4.2 (2.9-6.4) and 2 (2-5) for rectal placebo and rectal NSAID groups, respectively. There was no significant difference between groups according to VAS values (p=0.135). Among medication groups any analgesic drug requirement and vasovagal symptoms were 6 (19.2%), 5 (20%) for analgesic requirement and 1 (3.8 %), 0 (0%) for vasovagal symptoms in placebo group respectively.

Conclusions

We did not establish any significant effect of NSAIDs compared to placebo for pain relief prior to office hysteroscopy.

ES24-0097
Selected Posters

Analysis of 217 Cases of Linear Salpingostomy with Simultaneous Methotrexate Local Injection for Tubal Pregnancy

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Background

Laparoscopic linear salpingostomy is an optional treatment of tubal pregnancy to conserve a tubal function, though it has a risk of persistent ectopic pregnancy (PEP). For the purpose to reduce the risk of PEP, we perform a linear salpingostomy with simultaneous Methotrexate (MTX) local injection (LSML) and hereby report on it.

Methods

A retrospective study was conducted on 217 women undergoing LSML for tubal pregnancy in our hospital from 1998 to 2013. The operations were performed laparoscopically in principal, in which 15mg of MTX was injected into affected salpinx. The incidence rate of PEP, according as preoperative hCG level and fetal heartbeat in ultrasound, was analyzed.

Results

PEP occurred in eight of 217 cases, or 3.7%, of LSML. As the treatment of PEP, 50-80mg of MTX was administered systemically, which resulted that seven cases cured by single administration uneventfully, and one case required additional laparoscopic salpingectomy. No specific adverse effect of MTX was observed after LSML. PEP occurred in 4.1% in cases more than 10000 mIU/mL of hCG, 3.6% in less than 10000, whereas 8.7% in positive heartbeat case, 3.1% in negative, which showed no significant difference.

Conclusions

LSML may be an excellent method of the preservation of fallopian tubes with low risk of PEP and adverse effect of MTX. Its effectiveness was not influenced by preoperative hCG level and the presence of fetal heartbeat.

ES24-0121
Selected Posters

Anatomical Areas of Risk of Injury of Pelvic Nerves, During Endometriotic Surgical Excision.

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Background

Endometriosis can necessitate substantial surgical excisions, which in turn expose to risks of injury to the pelvic nerves. To limit functional complications, nerve-sparing surgical techniques are being developed but should be adapted to the specific multifocal character of endometriotic lesions. The objective was to identify the anatomical areas where the pelvic nerves are most at risk of injury during endometriotic excisions.

Methods

Four female adult corpses have been dissected to define the key anatomical areas where the pelvic nerves are most at risk of injury. The Medline and Embase databases have been searched for available literature using the key words “hypogastric nerve or hypogastric plexus [Mesh] or autonomic pathway [Mesh], anatomy, endometriosis, surgery [Mesh]”. All relevant French and English publications, selected based on their available abstracts, have been reviewed.

Results

Five anatomical areas of high risk for pelvic nerves have been identified, analysed and described. Pelvic nerves can be damaged during the dissection of retrorectal space and the anterolateral rectal excision. Furthermore, before an uterosacral ligament excision, a parametrial excision or a colpectomy, the hypogastric nerves, splanchnic nerves, inferior hypogastric plexus and its efferent pathways must be mapped out to avoid injury.

Conclusions

Applying nerve-sparing surgical techniques for endometriosis leads to less functional complications without altering surgical efficacy. Five key anatomical pitfalls must be known in order to limit the functional complications of the endometriotic surgical excision.

ES24-0133
Selected Posters

Effect of the Length of Stalk On the Torsion of Subserosal Uterine Myoma

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Background

The torsion of subserosal uterine myoma with stalk cause acute abdominal pain. It is predicted that the large subserosal uterine myoma with long and slender stalk is easy to be twisted. To clarify what kind of subserosal uterine myoma with stalk is easy to be twisted.

Methods

A retrospective study was conducted. Female patients treated laparoscopic myomectomy at our university hospital between 2011 and September 2014 were subjected. The subjects were classified into torsion and non-torsion groups by their clinical status of torsion in the stalk of the subserosal myoma. The maximum diameter of the myoma, the length of stalk and the thickness of stalk was compared between two groups.

Results

A total of 6 cases of torsion and 20 cases of non-torsion were analyzed. The average length of stalk was significantly higher in torsion cases (18.02±3.70mm) than in non-torsion (8.99±3.87mm), although we could not detect differences in the maximum diameter of the myoma and the thickness of stalk. We found that the ratio of the length to the thickness (Length Thickness Index) was a better predictive marker than the length of stalk or the ratio of maximum diameter of myoma to the length. If we predict the cases had a torsion when the ratio of the length to the thickness over 1.0, the sensitivity, specificity, positive predictive value and negative predictive value were 100%, 90%, 75% and 100%, respectively.

Conclusions

The length of stalk was associated with the torsion of subserosal myoma. When the ratio of the length to the thickness over 1.0, we should be careful that the subserosal myoma has a torsion.

ES24-0146
Selected Posters

Effect of Endometrial Polyps, Histology, Intrauterine Localization and the Technique of Polypectomy On Fertility

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Background

Endometrial polyps are frequently found in infertile patients, but most of them are asymptomatic. They can be effectively detected by ultrasound using contrast media or color Doppler, but the gold standard is hysteroscopy. In reproductive age, they carry low risk of malignancy. It is assumed that larger polyps hamper implantation. However, it is not clear yet, whether resection of all polyps necessarily improves the fertility, and is the polyp localization influence the implantation failure.

Methods

A retrospective study of ovulatory infertile women with endometrial polyp, at whom TCRP was performed between 2006 and 2012. Time interval between operation and the first pregnancy were registered, if pregnancy occured until 2014. The aim was to evaluate whether the transcervical resection of endometrial polyps (TCRP) improves the fertility status, and polyp histology, intrauterine location, the technique of polypectomy have influence of pregnancy rate (PR) in ovulatory infertile women.

Results

Fifty patients were eligible for data collection. Anovulation, tubal, male factor were excluded. TCRP was performed by resectoscop or hysteroscopically controlled curettage, hystology was examined. Polyps were categorized to localization: utero-tubal junction, anterior, posterior, lateral, multiple. PR was calculated to TCRP method, histology and location. T-test was used for differences. Twenty-seven pregnancies (54%) were registered after TCRP, 20 (40%) of them in one year. Mean time interval until conception was 12,1 (range 3-41) months. PR was similar in resectoscop and curettage group (21/37, 56% vs. 6/13, 46%). To histology, PR was higher if simple polyp was found than after polyps with hyperplasia (24/37, 65% vs. 3/13, 23%, P=0.008). There were no differences in PR, neither in time interval to conception between the groups of different polyplocalisation.

Conclusions

Removing of endometrial polyps by TCRP improves the fertility of ovulatory women, irrespective to the resection method, i.e. resectoscop or hysteroscopy controlled curettage. Pregnancy rate is higher if endometrial hyperplasia is not found in the polyp. The location of endometrial polyp in the uterine cavity does not influence the fertility. Our data supports the hypothesis, that endometrial polyps physically prevent the implantation and can be the single cause of infertility. Thus, TCRP is recommended, irrespective to polyp localization. Resectoscopy is not superior than histeroscopically controlled curettage. Fertility prognosis is worse if hyperplasia is present, otherwise the one-year PR is good. Although the minimum follow up was 2 years, longer postoperative follow and larger patients number may alter the pregnacy rates. Influence of polyp size was not examined. Fertility related life-style and enviromental factors were not examined.

ES24-0157
Selected Posters

Laparoscopic Ultrasound Procedure Can Reduce Residual Myomas in Laparoscopic Myomectomy for Multiple Myomas

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Background

Since recent Japanese women tend to get married and pregnant at advanced age, it is necessary to preserve their uterus up to 40 years-old to have children. Therefore, in the operation of myomas, myomectomy is usually selected, so the possibility of recurrence and re-operation of myomas is concerned in later life. The aim of the present study was to clarify whether the use of laparoscopic ultrasound (LUS) during laparoscopic myomectomy could reduce number of residual myomas after operation.

Methods

Case-control study was conducted. Subjects were women who were taken laparoscopic myomectomy for multiple uterine myomas for the first time. The subjects were assigned to two groups according to the use of LUS during operation or not. All subjects got the MRI in pelvis three months before and six months after operation, and number of myomas on the MRI were counted by ragiodiagnosticians. Extraction rate and residual rate of uterine myomas were compared between two groups.

Results

14 cases with and 30 cases without LUS were analyzed. Median operation times were 171 min. (range 75-295) and 141 min. (range 50-260) in cases with and without LUS, respectively (p= 0.077). Median of extraction rates in total number of myomas were 106 % (range: 75-147%) with LUS cases and 100% (range: 71-233%) without LUS cases (p=0.480). Numbers of residual myomas were 1 (range: 0-3) with LUS cases and 2 (range: 0-9) without LUS (p = 0.028). Median residual rates of myomas were 6.1% (range: 0-20%) with LUS cases and 20.0% (range: 0-69%) without LUS (p = 0.048). More than 3 cm of myomas were not observed after operation both with and without LUS.

Conclusions

Number and residual rate of myomas were significantly less in cases using LUS compared to cases without LUS.

ES24-0163
Selected Posters

Laparoscopic Hysterectomy Versus Other Types of Hysterectomy: 4 Year Experience in a Lithuanian Tertiary Hospital

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Background

To compare laparoscopic hysterectomy (LH) with vaginal hysterectomy (VH), abdominal hysterectomy (AH) and laparoscopically assisted vaginal hysterectomy (LAVH), and to collate the results with the existing research findings.

Methods

We have retrospectively reviewed the medical records of 649 patients who have undergone hysterectomy for benign pathology at the Gynecology Department of Vilnius University Hospital Santariskiu Klinikos between February 2010 and February 2013. All indications, patients' characteristics and complications were recorded as well as the surgical route, operating type, blood loss and uterus size. Data was considered statistically significant when p-value was less than 0.05.

Results

649 hysterectomies were performed during the study period (LH 18% (n=119), VH 42% (n=271), AH 37% (n=239) and LAVH 3% (n=20)). Mean age was 54 ± 12 years, though patients were significantly older in VH and LAVH groups ($p<0.05$). Uterine size was larger in AH ($p=0.001$) and LAVH ($p=0.034$) groups. Operating time was longer using the laparoscopic route than the abdominal ($p=0.001$) or vaginal ($p=0.007$) routes. The duration of LH was getting shorter each year ($p<0.001$). The mean blood loss was lowest in LH group compared with the other groups ($p<0.05$) and was decreasing each year ($p<0.001$). The shortest hospital stay was also in the LH group ($p=0.003$).

Conclusions

Abdominal and laparoscopically assisted vaginal hysterectomies were selected in cases of large uterus. The longest operating time was in laparoscopic hysterectomy group, but was getting significantly shorter annually. The mean blood loss was lowest in the laparoscopic group and was decreasing annually. This study has highlighted the advantages of laparoscopic hysterectomy.

ES24-0165
Selected Posters

Comparison of Bidirectional Barbed Suture Stratafix and Conventional Suture with Intracorporeal Knots in Laparoscopic Myomectomy

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Background

Uterine myomas are the most common benign tumors of the uterus. Laparoscopic myomectomy has several advantages over the laparotomic and minilaparo- tomic approaches. The experience of the surgeon in endoscopic suturing has a critical role in the operative times. Barbed sutures have recently been proposed to facilitate laparoscopic suturing. Our objective was to compare surgical outcomes of two different intracorporeal sutures, conventional and barbed, for laparoscopic posterior myomectomy. The main outcome measures was suturing time, peri and post-surgical parameters, including complications, and post-operative adhesions in two groups.

Methods

47 women were enrolled in a prospective randomized study at the Departments of Obstetrics and Gynecology, University of Naples Federico II, between January 2013 and January 2014. The study inclusion criteria were single posterior intramural myoma with diameter of 4-7 cm on preoperative ultrasound screen; age between 18 and 46 years; absence of any other gynecologic pathology at preoperative ultrasound examination; no previous pelvic surgery; no previous treatment with an analog of gonadotropin-releasing hormone. The patients undergoing laparoscopic myomectomy, were divided in two groups: Group A (conventional suture) and Group B (bidirectional barbed suture Stratafix, Etichon). Transvaginal Hydrolaparoscopy was performed at 90-180 days follow-up to evaluate post operative adhesion.

Results

The mean operative time was significantly shorter in the Stratafix group than in the conventional suture group (66.3±8.2 min vs 73± 8 min, $P < .05$). Suturing time was significantly lower in the group B than in the group A (8.8±2.4 versus 15.5± 2.8 min; $P=0.001$). Both intraoperative bleeding were significantly lower in the Stratafix group (116.2 ± 15.5 mL vs 130.7 ±13.2 mL $P=0.0012$). About 5% of patients at transvaginal hydrolaparoscopy follow-up have post-operative adhesions and there isn't significantly difference in two groups in term of post operative adhesions (26.7% vs 21.4 % $P= 0.5$).

Conclusions

Our data show that barbed suture is effective, safety and improves operative outcomes. Particularly, it reduce operative and suturing time and blood loss during laparoscopic suturing. Transvaginal hydrolaparoscopy, yet used only for infertility work-up, may be performed also in patients undergoing posterior miomectomy when postoperative adhesion were suspected

ES24-0195
Selected Posters

An Alternative Mechanism of Uterine Leiomyoma Pathogenesis

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Background

Uterine leiomyoma (UL) is the most common monoclonal benign tumor of female uterus. It's well established that ovarian steroids play important role in UL growth. To date, it's been accumulated enough data about the role of not only steroid hormones in the blood serum, but also local steroidogenesis in the progression of UL. These processes are regulated by aromatase P450 involving the conversion of androgens to estrogens. Growth and destruction of extracellular matrix are also important pathogenic factors in UL growth. Balance of processes of proliferation and apoptosis according to data of few authors is also factor of fibroid progression, but data about role of apoptosis are conflicting. Today we have strong evidence that genetic and environmental factors also play important role in uterine leiomyoma pathogenesis. Thus, etiology and pathogenesis of uterine leiomyoma – very common female benign tumor are still not very clear irrespectively of huge number of publications. Taking into account great role of local endocrine regulation of leiomyoma growth, we proposed possible involvement of morphologically normal myometrium in leiomyoma pathogenesis.

Methods

Based on the proven fact of unfavorable influence of multiple myoma on recurrence rate we setup a pilot study to comparative analysis of the expression of immunohistochemical markers in unchanged myometrium of women with multiple uterine leiomyomas (5 nodules and more) with unfavorable prognosis of recurrence (10 samples) and women with a single myoma node who had relatively favorable prognosis (10 samples). All patients have not received hormonal treatment for at least 6 months prior surgery. Both groups were similar in average age, BMI, parity and concomitant diseases. Such gynecologic pathology as endometrial hyperplasia, PCOS and endometriosis were excluded from study because of possible influence on myometrial biology. In the study immunohistochemical analysis of the following markers has been performed in biopsy specimens of unchanged myometrium: proliferation (Ki-67), apoptosis (Bcl-2), extracellular matrix degradation (MMP-9), angiogenesis (VEGF), steroid hormone receptors (ER, PR), vascular density (CD34) and trombosponin-1 (TSP-1). Expression of markers was calculated semiquantitatively. Vascular density was calculated manually. Vessel counts per field were converted to vessels per mm2.

Results

According to data obtained it was possible to distinguish two different types of normal myometrium in women with uterine fibroids. Women with multiple myoma had statistically significant increase of expression of aromatase (P450), TSP-1 VEGF and increased vascular density (CD34).

Conclusions

In conclusion we suggest that in addition to gene mutations in precursor cells, an increased vascularity, potential to angiogenesis combined with tendency to local steroidogenesis and disturbances of regeneration could be a pathogenic factor of new uterine leiomyoma development and its further progression.

ES24-0204
Selected Posters

Serum Markers of Antioxidant Status in Women with Endometriosis Related Infertility
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Background

Infertile women with endometriosis have imbalance between systems of lipid peroxidation and antioxidant protection which leads to the intensification of the process of oxidative stress, which in turn has a negative impact on a woman's fertility by blocking ovulation, reducing the frequency of fertilization and implantation. The purpose of the study was to investigate the antioxidant status in women with endometriosis related infertility by analyzing the antioxidants (coenzyme Q_{10} and α-tocopherol) level in plasma.

Methods

The study included 24 infertile women with endometriosis and 10 fertile women as control group aged 23 to 41.We performed a laparoscopy to confirm the infertility: 5 infertile women had minimal–mild endometriosis and 19 infertile women had moderate–severe endometriosis (American Fertility Society classification). Analysis of coenzyme Q_{10} and α-tocopherol levels was performed using high-performance liquid chromatography with electrochemical detection. Blood samples were carried out in the luteal phase of the menstrual cycle in the "window of implantation" (5-7 days after ovulation) before surgery.

Results

75% of infertile women were diagnosed as primary infertile and 25% - as secondary infertile. The majority of infertile women had algodismenorrhea (79%), hypermenorrhea (58%), dyspareunia (42%). Infertile women with endometriosis showed a lower (Ñ€=0.01) coenzyme Q10 concentration in plasma 1.18 (CI 0.98- 1.39) µg/ml compared to control group 1.57 (CI1.23-2.32) µg/ml. A similar trend was found in α-tocopherol level assay, which was lower (Ñ€=0.03) in patients with endometriosis compared to the control group [18.9 (CI 17.7-21.0) µg/ml and 24.5 (CI 19.0-27.7) µg/ml, respectively].

Conclusions

Coenzyme Q10 and α-tocopherol levels in plasma in women with endometriosis are significantly decreased compared to control level. The reduction of coenzyme Q10 and α-tocopherol can alter the redox balance, and leads to endometrium damage by free radicals and possible disturb the embryo implantation. Low level of antioxidant protection may be verified by these oxidative stress markers. Thus antioxidant therapy may have positive influence on endometrial receptivity and should be used in complex therapy in infertile women with endometriosis.

ES24-0205
Selected Posters

Identification of the Causes of Female Infertility

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Background

In the last few decades there has been a growing interest in diagnosis and treatment of infertility in women. Even though in recent years the efficiency of assisted reproductive technology has been improved available methods are still insufficient. The majority of publications report tubal obstruction and pelvic adhesions as the main causes of female infertility. Therefore the aim of this paper is to assess the diagnostic value of the most common diagnostic tools for identification of different etiological types of female infertility.

Methods

We performed the retrospective analysis of laparoscopic surgery outcomes. In total 285 infertile female patients under 35 years was included (192 women with primary and 93 women with secondary infertility). Median age was 24,7 ± 1,5 years in primary infertility group and 29,2 ± 1,3 years in secondary infertility group. All included patients reported lack of pregnancy during one year or more of regular intercourse not using any contraception. The period of infertility varied from 1,5 to 12 years (4,5 ± 3,2 years on average). Exclusion criteria were: age exceeding 35 years, male infertility in sexual partner, bilateral tubectomy, uterine infertility, Cushing syndrome, Sheehan syndrome, hyperprolactinemia, resistant ovary syndrome. Prior to hospitalization tubal patency was evaluated: hysterosalpingography was performed in 162 patients, hydrosonography — in 41 patients, and fertiloscopy — in 19 patients.

Results

Laparoscopy in patients with primary infertility revealed a significant difference between the expected and the actual cause of infertility. True rate of endometriosis was two times higher than expected (44% vs. 19% respectively). Twofold tubal infertility prevalence decrease was observed as compared to the preoperative diagnostic data (22% vs. 52%, respectively). Moreover, surgically verified rate of endometriosis in secondary infertility group was two times higher compared to preoperative data (10% vs. 24%, respectively). The difference between tubal infertility rate during the preoperative diagnostic phase (80%) and actual tubal infertility rate verified by laparoscopy (64%) in secondary infertility group was also present, although was less pronounced.

Conclusions

The rates of different causes of infertility during the preoperative diagnostic phase and actual prevalence of each cause significantly differ. Both in patients with primary and secondary infertility underestimation of external genital endometriosis rate is clearly present. Therefore it is required to perform a review of existing diagnostic approaches in female infertile patients.

ES24-0210
Selected Posters

Caesarean Scar Pregnancy: Case Report and Literature Overview

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Background

Caesarean scar pregnancy (CSP) is a rare form of extra-uterine pregnancy with implantation of the gestational sac into the caesarean scar. We present a case report of a patient with a CSP with positive heart activity and a high hcg-level who was initially treated medically, but ultimately required a surgical intervention because of uncontrollable vaginal bleeding.

Methods

A 29-year-old secundigravida presented on 7 weeks gestation with vaginal bleeding and an evolutive pregnancy with heart activity situated in the caesarean scar. She had a high hcg-level of 43597 IU/L. As the bleeding stopped spontaneously the CSP was treated medically with Mifepriston, intramuscular Methotrexate (MTX) (two injections with interval of 5 days) and intra-amniotic injection of MTX (single dose) one day after the first injection of MTX.

Results

The evolution of the pregnancy was closely monitored by HCG-value measurements and ultrasound exams. Heart activity ceased three days after the administration of intra-amniotic MTX. After the first intramuscular injection of MTX hcg rose to a level of 61438 IU/L and started to decrease gradually after the third dose of MTX. On ultrasound, the gestational sac decreased in volume. In contrast though, the total pregnancy mass had increased up to a diameter of 5 cm. Despite low HCG level (138 IU/L) the patient presented 11 weeks after diagnosis with heavy vaginal bleeding. After bilateral embolisation of the uterine artery, a laparotomy was performed in order to open the caesarean scar, remove the CSP and reconstruct the scar.

Conclusions

With the increasing incidence of caesarean sections worldwide, CSP will become more frequent. General awareness and knowledge of the sonographic features is important to distinguish CSP from a spontaneous miscarriage or cervical pregnancy. Early diagnosis can prevent life-threatening bleeding and could preserve a women's fertility. Medical treatment with termination of the pregnancy remains the standard because of the risk of heavy bleeding and hysterectomy associated with surgical therapy. After medical treatment, it may take several months before the pregnancy disappears. In the meantime, surgical treatment, such as hysteroscopy, laparoscopy or laparotomy, may be required because of uncontrollable bleeding. The choice of the surgical treatment remains individual and depends on HCG levels and operational skills of the surgeon. After the treatment of CSP, the interval to a next pregnancy remains unclear. Also the study of risk factors for CSP is matter of further research e.g. the role of a niche, surgical techniques for uterine closure during caesarean section,….

ES24-0285
Selected Posters

Vaginal Cuff Closure with Unidirectional Barbed Suture During Total Laparoscopic Hysterectomy is a Safe and Feasible Procedure

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Background

The aim of this study was to demonstrate the efficacy and safety of unidirectional barbed suture in vaginal cuff closure during total laparoscopic hysterectomy (TLH).

Methods

The electronic medical records and operation videos of 85 patients undergoing TLH by a gynecologic oncologist from January, 2013, to March, 2014 Uijeong-bu St. Mary's Hospital were examined. Vaginal cuff closure was performed with two-layer running suture with polycolic acid (Vicryl^{TM}) in 53 patients and with unidirectional barbed device, V-Loc^{TM}, in 32 patients. Demographic data, procedure time, and postoperative complications were compared between the two groups.

Results

The Barbed group (n=32) were not different from traditional group (n=53) in clinical characteristics. The mean vaginal cuff closure time (7.2 min vs. 12.2 min, $P<.001$), closure time per stitch (0.5min vs. 1.0min, $P<.001$) in the barbed group were significantly faster than traditional group even if the number of stitch (14.1 vs. 12.3, $P<.001$) for stump suture in the barbed group were more than that in traditional group. Postoperative complications including episodes of vaginal bleeding, vaginal cuff cellulitis and postoperative transfusion were not different between both groups. There was no vaginal cuff dehiscence in both groups.

Conclusions

Vaginal cuff closure with unidirectional barbed suture during total laparoscopic hysterectomy is feasible and safe procedure, compared with the traditional suture.

ES24-0311
Selected Posters

Prevalence of Unexpected Malignancy in Women Undergoing Laparoscopic Hysterectomy with Morcellation for Heavy Menstrual Bleeding or Supravaginal Hysterectomy with Cervicosacropexy for Prolapse.

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Background

When using a morcellator there is a risk of morcellating an unexpected malignancy. Especially in the case of unsuspected leiomyosarcoma the recurrence rates and death rate are higher after morcellation.
Cervical and endometrial carcinomas can be screened preoperatively, but there are no good methods to detect uterine sarcomas.
That is why the FDA sent out the safety communication in 2013 to discourage morcellation in laparoscopic gynecologic surgery. When using a morcellator, patients should be informed, prior to surgery, that fibroids may contain unexpected cancerous tissue and that the morcellator may significantly worsen their prognosis.
We performed a retrospective cohort study in our hospital to identify all the unexpected malignancies after morcellation of the uterus in patients undergoing hysterectomy for heavy menstrual bleeding or supravaginal hysterectomy with cervicosacropexy because of prolaps.

Methods

We identified all patients in our hospital who underwent laparoscopic or robotic assisted supracervical hysterectomy with morcellation of the uterus or total laparoscopic hysterectomy from January 1, 2008, to December 31, 2014. We used the operation registry program to identify all cases.
The following variables were retrieved from the medical records: histopathological findings, age, menopausal status, parity and indication for surgery.
All hysterectomy specimens were sent for histopathological examination.
After identification of abnormal pathological finding, individual chart review was performed.

Results

We identified a total of 277 cases in which morcellation of the uterus was performed. Overall 1 unexpected malignancy was found and 3 cases of unexpected hyperplasia, a total incidence of malignany of 0.36% and a total of unexpected findings of 1.44%.There were no cases of sarcoma.

Conclusions

Patients should be adequately counseled about the risks and the prevalence of cancerous and precancerous conditions, but as opposed to the worsened prognosis after morcellation of a sarcoma, we don’t know what morcellation of endometrial cancer or hyperplasia exactly means.
Further studying is needed, especially on the long term follow up after morcellation of endometrial malignancy or hyperplasia.We propose to perform endometrial sampling in every patient who is planned for morcellation surgery because of pelvic organ prolapse, also in women who don’t have any vaginal blood loss.

ES24-0337
Selected Posters

Impact of Adhesions Formed by Laparoscopic Myomectomy On Postoperative Spontaneous Pregnancy

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Background

To assess that adhesions formed by laparoscopic myomectomy (LM) influence postoperative spontaneous pregnancy.

Methods

Five-hundred ninety-one patients who underwent LM between January 2000 and December 2012, and who desired pregnancy immediately after second-look laparoscopy (SLL) were retrospectively evaluated. Adhesions were evaluated by SLL after six months of LM for patients who desired pregnancy in the future. The association between the postoperative status and the spontaneous pregnancy rate was assessed. There were three degree classifications (D0: no adhesion; D1: filmy adhesion; D2: dense to cohesive adhesion), and four extensities (E0: no adhesion; E1: portion of uterine surface; E2: whole posterior or anterior uterine surface)for uterine adhesions.

Results

The cumulative pregnancy rate at 24 months after SLL did not significantly differ between patients without and with adhesions (44.1% vs. 33.1%, $p=0.14$); however, cox regression analysis revealed that the age and extensity of the adhesions were significantly associated with postoperative spontaneous pregnancy (odds ratio: 0.96 and 0.36; $p=0.04$ and $p=0.02$). In terms of the extensities, the pregnancy rate of patients with E2 adhesions were significantly lower in comparison with that of patients with E0 and E1 adhesions. According to logistic regression analysis, the E2 adhesion formation was significantly correlated to the number of enucleated myomas, the diameter of the largest myoma, and the coexistence of stage III-IV endometriosis at initial LM (odds ratio: 1.13, 1.02, and 3.96; $p<0.001$, $p=0.04$, and $p=0.001$).

Conclusions

Our data suggests that the postoperative spontaneous pregnancy rate potentially declines due to extensive adhesions formed after LM.

ES24-0338
Selected Posters

The Criteria for Preoperative Decision About Surgical Approach (Laparotomy, Laparoscopy) for Patients with Endometrial Cancer

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Background

Staging of endometrial cancer is a surgical procedure, meaning a removal of macroscopically healthy tissues for histological evaluation of spread of the disease. In advanced stages of endometrial cancer cytoreductive surgery is the preferred method of treatment. Laparoscopy proved to be sufficient and less invasive in early stages (FIGO IA) of well differentiated (G1) cancer in comparison with laparotomy, yet big uterus or deep invasion may present difficulty for laparoscopy and may lead to iatrogenic spread of the disease. The aim of the research was to evaluate preoperative criteria that we use to decide about surgical approach (laparotomy, laparoscopy) for patients with endometrial cancer.

Methods

A retrospective analysis of 105 consecutive patients with endometrial cancer treated in 2013 and 2014 was performed. Preoperative criteria we use are: tumor histological type and grade, ultrasonografic estimation of depth of invasion, ultrasonografic length of uterus and clinical/radiological signs of spread of disease outside of the uterus. The aim of using criteria is avoidance of unnecessary conversions and damage to the uterus or vagina during the uterus extraction.

Results

54 patients were operated laparoscopically. Preoperatively all of them had endometrioid carcinoma, grade 1 or 2, the average length of uterus was 74 mm and 61.1% had ultrasonografically no signs of deep invasion. 79.6% of them had FIGO stage I, the others had positive pelvic lymph nodes. There were no conversions to laparotomy, all procedures were macroscopically radical, no citoreductive operations were needed. However in 33% of cases there were at least minor problems with uterus extraction, there were two cases of heavy bleeding from vaginal rupture. On the other hand, 51 patients were operated through laparotomy. Among them 28 % had non-endometrioid carcinoma, 33 % had grade 3 tumor, the average length of the uterus was 91 mm, 72 % had ultrasonografic signs of deep myometrial invasion, 45 % of patients had FIGO stage III or IV. In 90% of cases the operation was macroscopically radical.

Conclusions

We can conclude that our preoperative criteria are useful to correctly decide for laparotomy when the disease is spread macroscopically outside of the uterus, there is a need for citoreductive operation or is the uterus so large that the extraction through the vagina is not safe or possible. Mostly we decide for laparoscopic approach correctly since there were no conversions. However in as much as 33% of cases there were still problems with uterus extractions with clinically important bleeding from the rupture of the vagina or possible tumor dissemination secondly to the uterus rupture during the extraction. There is a need for more standardized preoperative criteria for safe less invasive laparoscopic approach. The oncologic outcome when the uterus is ruptured during the extraction should be evaluated.

ES24-0348
Selected Posters

Predictive Factors of Surgical Site Infection in Patients with Endometrial Carcinoma

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Background

The aim of this study was to determine the incidence of and risk factors for surgical site infections (SSI) among women undergoing hysterectomy for endometrial carcinoma.

Methods

Clinicopathologic and surgical data of 1164 women with endometrial carcinoma were analyzed using univariable and multivariable analyses. A bootstrapping procedure was used for internal validation.

Results

Minimally invasive hysterectomy was performed in 912 patients (78.4%), and 755 patients (64.9%) received lymphadenectomy. Antibiotic prophylaxis was routinely administered at the time of the operation. Ninety-four patients (8.1%) developed SSI. Pelvic cellulitis was the most common type of infection (n = 56), followed by wound infection (n = 20), pelvic abscess (n = 11), and vaginal cuff infection (n = 7). Odds ratios (OR) for SSI were calculated for 17 putative risk factors. Smoking, preoperative leukocytosis, open surgery, conversion to laparotomy, lymphadenectomy, operative time >80 percentile, and estimated blood loss >500 ml were recognized as potential risk factors (P <0.20). Logistic regression analysis showed smoking (OR 2.0, 95% confidence interval [CI] 1.1-3.5; P = 0.017) and lymphadenectomy (OR 1.8, 95% CI 1.0-3.0; P = 0.038) to be independently associated with a higher risk of SSI. Both significant association retained after 1,000 repetitions of bootstrapping (P = 0.014 and P = 0.034 for smoking and lymphadenectomy, respectively).

Conclusions

At an institution with a high rate of minimally invasive surgery and adherence to routine antibiotic prophylaxis, the incidence of SSI was 8.1% in women undergoing hysterectomy for endometrial carcinoma. Pelvic cellulitis was the most common type of infection. Smoking and lymphadenectomy were independent risk factors for SSI.

ES24-0350
Selected Posters

Current State of Surgical Training in Gynaecology: What Does the Future Hold?

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Background

Progression through the postgraduate curriculum requires trainees to achieve minimal standards of competency across numerous technical skills, as outlined by The Royal College of Obstetricians and Gynaecologists (RCOG). However concerns are frequently raised by trainees regarding inadequate experience particularly in gynaecology. Consequently, the main objective of this audit was to analyse the level of surgical exposure of specialty trainees in obstetrics and gynaecology. An additional aim was to assess accompanying supervision levels as these possess varying educational merits and may influence learning and training progression.

Methods

This retrospective study analysed obstetric and gynaecology paper theatre logbooks in NHS Tayside for 2013, a six month period of stable employment of senior staff. Information concerning surgical procedure and the seniority of the operator and the assistant was recorded. Supervision was deemed direct if consultant assisted, indirect if trainee operated where consultant present but not a nominated assistant and unsupervised if trainee operated independently. Theatre list entries which lacked essential details or were illegible were excluded. All theatre lists for the provision of termination of pregnancy were excluded as not all trainees elect to participate in this service.

Results

In obstetric procedures listed (n=837), trainees performed 66.7% and assisted in 13.9% of cases. Trainee led procedures were directly supervised, indirectly supervised or unsupervised in 39.6%, 42.4% and 17.9% of cases respectively. Conversely in gynaecological procedures listed (n=918), trainees performed 26% and assisted in 36.6% of cases. Trainee led procedures were directly supervised or indirectly supervised in 49.8% and 50.2% of cases respectively. Procedures regarded as core surgical competencies for obstetrics (n=701) were performed by trainees in 66.5% of cases of which 37.6% were directly supervised, 46.1% indirectly supervised and 16.1% were unsupervised. In contrast, procedures regarded as core surgical competencies for gynaecology (n=65) were performed by trainees in 23.0% of cases, of which 73.3% were directly supervised and 26.7% indirectly supervised.

Conclusions

High overall numbers of gynaecological procedures observed in this study is inconsistent with suggestions by RCOG (The Future Role of the Consultant, 2005). While advances in the specialty alter the profile of gynaecological cases there remains sufficient numbers to provide adequate training in gynaecology. Yet, fewer instances of trainee performed procedures were recorded for gynaecology than obstetrics. This may be attributable to a shift towards consultant led care in gynaecology and high demand for trainee led on-call service provision in obstetrics but lack of such a driving factor for gynaecology. The decrease in trainee exposure may contribute to lower competency in gynaecology and may have substantial implications for future generations of gynaecologists and patient care.

ES24-0352
Selected Posters

Oncologic Aspects of Endoscopic Myomectomy

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Background

Morcellation of myoma after endoscopic myomectomy has been established as a common procedure of endoscopic gynecologic surgery. Few cases of unintentional morcellation of sarcomas have been reported, which is known to be associated with poor prognosises. Preoperative exclusion of malignancy can not be guaranteed. The aim of our study was to investigate the occurence of preoperative undiscovered and intraoperative unapparent sarcoma of endoscopic myomectomy in our department.

Methods

Evaluation of all endocsopic myomectomies including morcellation that were conducted at the department of gynecology of the Saarland University between 2009 and 2013. A retrospective analysis of histology and patients characteristics such as age, number and size of myoma.

Results

An evaluation of the data of 506 endoscopic myomectomies is available. The average age was of 35 years. On all patients (100%), a preoperative transvaginal ultrasound was performed. The average operating time was 173 minutes. On average, 2,3 myomas (range 1-10) of an average size of 4,19 centimeter (range 0.5-15) were removed. One patient showed a histologically proven leiomyosarcoma.

Conclusions

Laparoscopic mocellation of uterine fibroids is a well-established procedure of minmial invasive surgery. Fortunately, the malignancy rate is low after the morcellation of uterine fibroids in our department. Inspite of these incouraging results, a detailed information of patients concerning the risk of malignancy is imperative.

ES24-0372
Selected Posters

Outcome After Laparoscopy in Early Pregnancy for Suspected Ectopic Pregnancy

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Background

Objectives: To look at the outcomes of the pregnancy in women who had diagnostic laparoscopy for suspected ectopic pregnancy over a three year period at Norfolk and Norwich University Hospital, UK.

Methods

Women who had laparoscopy for suspected ectopic pregnancies from January 2012 until December 2014 were identified through the early pregnancy unit records and orsos webperiop system and their case notes including the operative findings and outcome of the pregnancy were reviewed.

Results

107 patients had laparoscopy for suspected ectopic pregnancy on transvaginal scan and beta HCG levels from January 2012 till December 2014. However 14% had negative laparoscopy where no extruterine pregnancy was identified on laparoscopy. A total of 15/107 cases(14%) were not ectopic pregnancies on diagnostic laparoscopy. 5 of these 15 cases progressed in pregnancy normally to term and had normal vaginal delivery. There was one interesting case of adenocarcinoma of the bowel and was delivered by classical caesarean section at 25 weeks and her care was taken over by the colorectal surgeons for further management of adenocarcinoma. 2/15 when followed up by further ultrasound scans and beta HCG confirmed failed intrauterine pregnancy which ended up as complete miscarriage. The histology confirmed products of conception. 7/15 had concurrent suction evacuation of the uterus which confirmed products of conception on histology. Patients undergoing laparoscopy for suspected ectopic pregnancy were also consented for suction evacuation if the beta HCG levels are static or there is a minimal drop. Where there is a suboptimal rise in beta HCG the uterine manipulator was not used until the ectopic pregnancy is confirmed on laparoscopy. 92/107 cases were confirmed ectopic pregnancies. 9/92 ectopic pregnancies were converted to laparotomy due to ruptured ectopic, haemoperitoneum and haemodynamic instability. 3 out of these 9 ruptured ectopic pregnancies were cornual ectopic pregnancies which required additional suturing for haemostasis. Only 2 patients out of these 92 ectopics had salpingostomy as they had previous salpingectomy of the other tube.

Conclusions

Despite the improvements in the quality of ultrasound machines and development of diagnostic algorithms, diagnosis of ectopic pregnancy is sometimes challenging. There is need for additional invasive investigations in the form of laparoscopy for the safe and timely diagnosis. It is extremely important to counsel the women who are apprehensive regarding the safety of laparoscopy in early pregnancy for definitive diagnosis and the normal outcome of pregnancy if it is an intrauterine pregnancy.

ES24-0388
Selected Posters

Acquired Uterine Retroflexion After Caesarean-induced Isthmocele

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Background

Isthmocele is a caesarean scar defect, also defined as niche or uterine diverticulum, located on the anterior wall of the uterine isthmus on the site of the previous ceasarean incision. Even if its benign condition, it has an important impact on woman's wellness and fertility. Its presence has been implicated as a cause of abnormal uterine bleeding, pelvic pain, dysmenorrhea, dyspareunia, infertility, scar ectopic pregnancy. On the basis of our findings we suspect its pivotal role in acquired uterine retroflexion.

Methods

We conducted a retrospective study on 1384 office hysteroscopies performed in ambulatory setting from 2012 to 2014 using 5 mm Bettocchi hysteroscope. Endpoint of our study was to evaluate the incidence of acquired uterine retroflexion in women with isthmocele who underwent to one or more cesarean sections.

Results

Isthmocele was diagnosed in 114 patients (8.24%) between 29 and 63 year of age (average age 44 years old). Post-menstrual abnormal uterine bleeding (PMAUB) was the most frequent presenting complaint, observed in 44% (n=50) patients. Acquired uterine retroflexion was detected in 22.08% (n=26) of cases, of these 15.79% (n=18) showed a low-moderate retroflexion and 7.02% (n=8) a severe retroflexion. A chronic inflammation of the isthmocele was detected in 54% of women with uterine retroflexion.

Conclusions

Isthmocele is the result of a traction of the scar at level of the uterine internal os secondary to the inclusion of decidua during uterine closure and consequent unfitting myometrial approximation. The weakening of the anterior wall of the uterine isthmus, the reduced tissue perfusion, as well as the delayed wound healing by impaired production of collagen and the retractable action of puerperal involution determine a backward flexion of the uterine body. Office hysteroscopy allows a direct visualization of the uterine niche and helps to define depth, size, flexion and inflammation state. For these reasons, in women with a past history of caesarean section we strongly suggest to suspect not only an isthmocele but also a uterine retroflection and to perform a careful evaluation to avoid uterine perforation during blind intrauterine gynecologic procedures (e.g. IUD insertion, hysterometry, dilation and curettage).

ES24-0407
Selected Posters

Hysteroscopic Removal of Retained Products of Conception - Reducing the Risks and Improving Patient Care

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Background

Retained products of conception (RPOC) after birth, miscarriage and termination are not uncommon. Surgical management by blind suction curettage is associated with the risk of uterine perforation, the need for repeat evacuation and intrauterine adhesion formation. Studies suggest hysteroscopic removal of RPOC in selected cases performed by experienced hands reduces these risks, preserves uterine integrity and may improve chances of future conception. Women with congenital Mullerian anomalies may also benefit from hysteroscopic management of RPOC to decrease the risks. We aimed to assess the outcomes and complication rates of a selected group of patients who underwent hysteroscopic resection of RPOC at Frimley Health NHS Foundation Trust, Surrey, UK.

Methods

60 patients with retained products of conception were selected for hysteroscopic resection of RPOC between September 2009 and March 2015. All patients had a transvaginal ultrasound scan during initial consultation. Each case was discussed with a Consultant in the Early Pregnancy Department prior to booking for theatre. Those undergoing the procedure received pre-operative oral misoprostol and intraoperative antibiotics. The procedures were performed under General Anaesthesia using a bipolar resectoscope with normal saline as distension media. In 5 cases monopolar with glycine was used before the introduction of the bipolar resectoscope. Operative outcomes including complications were recorded.

Results

Of those patients undergoing the procedure, 38% were following failed medical management of miscarriage, 37% postpartum and 25% post ERPC. 82% of procedures were carried out by a Consultant, the remainder by trainees under Consultant supervision. Complete removal of pregnancy tissue was achieved in 100% of cases. Products of conception were confirmed histologically in all cases. Complications arose in only 2 cases including perforation in an IVF patient with severe endometriosis and a case of excess fluid absorption using glycine with a previous unrecognised perforation.

Conclusions

Hysteroscopic removal of RPOC is a safe and effective technique in selected cases performed by an experienced surgeon. It has fewer complications and should be considered an alternative to conventional blind evacuation by curettage. It ensures the complete evacuation of the uterine cavity under direct vision, reducing the need for repeat procedures. The risk of developing Asherman’s syndrome and infertility is reduced. MYOSURE with the recent FDA approval for hysteroscopic morcellation of RPOC is likely to replace the bipolar resectoscope.

http://player.vimeo.com/video/103837090?autoplay=1

ES24-0445
Selected Posters

The Effects of Salpingectomy and Methotrexate Treatment On Ovarian Reserve in Ectopic Pregnancy

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Background

To investigate the effects of salpingectomy and methotrexate treatment on ovarian reserve in ectopic pregnancy.

Methods

This prospective study was conducted in a university hospital. A total of 131 patients with ectopic pregnancy were divided in three groups of methotrexate (Mtx) only (Group-1, n:55), salpingectomy only (Group-2, n:61) and salpingectomy following Mtx (Group-3, n:15). All patients were evaluated for AMH levels before treatment, 1 and 3 months after treatment. Also pregnancy outcomes during 2 years of follow-up were recorded.

Results

AMH levels were not significant difference between groups before treatments. Although there were significant difference in AMH levels of first month after treatment according to group 1 vs 2, and group 1 vs 3, there was not any statistically significant difference between groups in AMH levels 3 months after treatment. Only in group-3 AMH level was significantly different comparing before treatment and first month after treatment. However this difference disappears 3 months after treatment. Additionally, pregnancy rates during the 2 years of follow up were 39 %, 47% and 36% respectively in group1, 2 and 3, respectively (difference was not significant).

Conclusions

Treatment modalities of salpingectomy, methotrexate or salpingectomy with methotrexate have no significant different effect on ovarian reserve according to AMH measurements. Despite the early period difference in AMH levels according to group 1 vs 2 and group 1 vs 3, there was no significant difference in pregnancy outcomes between study groups.

ES24-0478
Selected Posters

A Decade of Laparoscopy; Is There a Relationship Between Endometriosis and Ectopic Pregnancy?

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Background

There are multiple risk factors for ectopic pregnancy, with tubal pathology, caused by previous surgery, pelvic infections or endometriosis known to be a strong risk factor. Endometriosis alone may double the risk, however some authors have disputed this. We sought to investigate if endometriosis truly is a risk factor for ectopic pregnancy.

Methods

We retrospectively reviewed 698 patients with an ectopic pregnancy who underwent laparoscopic surgery between 2004-2014 at a multiethnic district general hospital in London. The presence or absence of endometriosis was identified and known risk factors compared between the 2 groups

Results

36 (5.2%) had endometriosis and 662 (94.8%) had no evidence of endometriosis. 34 (94%) had grade 1-2 disease, 2 (6%) stage 3 disease and 0 stage 4 disease. Mean age was 31 in both groups. No significant difference between tubal or extra-tubal ectopic location (p0.33) was identified. Significantly, 75% with endometriosis were nulliparous and 0% had a previous ectopic pregnancy, whilst it was 46% and 11% respectively in those without endometriosis (p0.0008 and p0.03). 11% with endometriosis conceived using Artificial Reproduction Techniques (ART) and 4% without endometriosis (p0.04).

Conclusions

We believe that endometriosis per se is not a risk factor for ectopic pregnancy, at any site, as the prevalence in those with ectopic pregnancy over the last 10 years is equivalent to that of the general population; 2-10%. However, those with endometriosis had a statistically higher chance of being nulliparous and needing ART, which does independently increase the odds of ectopic pregnancy.

ES24-0481
Selected Posters

Transumbilical Single-port Access with Conventional Devices Versus Multiport Laparoscopy in the Surgery of Endometrial Cancer

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Background

The objective of this study is to compare conventional laparoscopy with transumbilical single-port access for the surgery treatment of endometrial cancer.

Methods

A retrospective study was performed with 36 patients, 18 were operated with conventional laparoscopy, and 18 with transumbilical single-port access .LESS surgery was performed throughout three trocars (one 10-mm and two-5mm trocars) inserted next to each other in the umbilicus, by an open access (via a single 2-3 cm longitudinal skin incision), and three incisions in the fascia. During the surgery we used the 10-mm telescope except when we performed the sentinel lymph node dissection, that we used 5-mm telescope and the gamma camera with the 10-mm trocar. The para-aortic lymph node dissection was performed in 4 cases (3 for G3 differentiation grade, and 1 for synchronic ovarian cancer), via extraperitoneal in 1 case, and transperitoneal in 3 cases. After uterus and ovaries were withdrowed, we sutured the vagina partially, with the central part open to insert a balloon trocar for the 30° lapasoscope, so we provided the umbilicus trocars for the para-aortic lymphadenectomy and omentectomy. This 30° laparoscope is especially used for performing a pelvis and para-aortic lymphadenectomy as it enhances the surgeon´s view of the pelvic brim, common iliac and aortic/vena cava vessels.

Results

We analyzed the characteristics of the two groups to verify any differences between them, except the laparoscopic technique performed. The variables studied were; median age, body mass index (BMI), previous abdominal surgery, and type of laparoscopic surgery, without significant differences.
There were no statistical differences between groups in postoperative changes in hemoglobin concentration (1,15 vs 1,25 gr/dl p=1), hospital stay (2,5 vs 2,5 days, p=0,69), intraoperative complication rate (0% vs 5%, p=0,19), postoperative complications (16,6% vs 11,1%, p=0,63), number of pelvic lymph node (16,5 vs 18, p=0,78), and number of para-aortic lymph nodes (9 vs 10, p=0,64). Patients in LESS (laparoendoscopic single-site surgery) group experienced less postoperative pain (22,3% vs 83,3%, p<0,001), and had a higher rate of satisfaction with the cosmetic results (10 vs 8, p=0,001). The median operating time was lower in LESS group (120-180min, p=0,027).

Conclusions

Laparoendoscopic single-site surgery is a feasible, safety and effective technique for the treatment of endometrial cancer, with less postoperative pain and better cosmetic results.

ES24-0488
Selected Posters

Is the Type of Fibroid Degeneration an Academic Diagnosis with Uncertain Clinical Significance?

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Background

Fibroids are the most common benign gynaecological neoplasm. Their prevalence increases with advancing age and African ethnicity. Many of gynaecological referrals and admissions are due to fibroids. One of the most important complications of fibroids is degeneration. The incidence of fibroid fibroid degeneration has been quoted between 5.1-65.4%. The risk of degeneration is increased with pregnancy, the combined oral contraceptive pill, large fibroids, menopause status, GnRH analogues and following fibroid artery embolisation. There are five different types of fibroid degeneration described in the literature (Hyaline, Cystic, Red, Myxoid and Fatty). Hyaline degeneration is the mildest and the most common type, which can coexist with other types of degeneration. Red degeneration is associated with increasing oestrogen levels (pregnancy, oestrogen containing contraceptive pill). Cystic degeneration is challenging as its appearance on imaging modulaties mimics potential malignant tumours. Myxoid degeneration is mostly asymptomatic. Fatty degeneration is rare. The clinical relevance of each type of fibroid degeneration is poorly understood.

Methods

A literature review was undertaken including articles from 1986 to 2014.

Results

Despite fibroids having a significant prevalence and burden on healthcare systems, fibroid degeneration is poorly represented in literature. Apart from the classic symptoms of red degeneration; the need for awareness of malignant differential diagnoses when faced with myxoid degeneration, and the negative correlation between hyperintensity on T1-weighted images and response to uterine artery embolization, no other clinical differences between different degenerative processes have been demonstrated in the literature.

Conclusions

This literature review has highlighted the need for specific studies comparing the symptoms, treatment response and outcomes of the different types of fibroid degeneration, or at the least evidence-based guidance on how to investigate and manage myxoid leimyomas.

ES24-0502
Selected Posters

A Novel, Cost-effective Box Training Model for Laparoscopic Salpingectomy.

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Background

Robust evidence exists to support the use of simulation training to develop the skills of the novice laparoscopic surgeon. Performance at laparoscopic surgery is significantly improved when junior surgeons carry out both exercise-based and procedure-based training. Operating time is shorter, movements are more efficient and there is some evidence that outcomes may be improved. Evidence has shown that regular use of a box trainer prior to those using virtual reality simulators also improves performance when starting to carry out a new procedure on patients.

Laparoscopic salpingectomy for ectopic pregnancy is often the first intermediate laparoscopic procedure that gynaecology trainees are taught to perform. This operation is commonly performed out of hours in an emergency; however exposure to laparoscopic simulation of salpingectomy for ectopic pregnancy is rare prior to real life scenarios. In part this is because although teaching hospitals in the UK usually have laparoscopic simulation boxes, there are no cheap and readily available simulations for salpingectomy to put in to the box for trainees to practise. Commercial simulators are available, but require either expensive single-use prostheses or virtual reality computerised simulators.

Methods

We present a new, simple model for laparoscopic salpingectomy made from common items found in the hospital which are easily replaceable and cost a few pence each. In just 3 minutes, a simulation uterus, Fallopian tubes with mesosalpinges and pelvic sidewalls can be made from a nitrile glove filled with a large surgical swab, medical tape and two plastic cups. Using this equipment, “salpingectomy” can be performed bilaterally in the laparoscopic trainer before the need to replace the glove.

Results

Junior surgeons in our department have found this simulator a useful and helpful addition to their surgical training. The ready availability of the required materials make this an ideal tool to introduce our trainees in gynaecology to this common operation.

Conclusions

This model can be used at minimal cost for junior surgeons to learn the principles of angles of traction, coordination of instruments, haptic feedback, and tissue tension required for laparoscopic surgical management of tubal ectopic pregnancies. We believe that it is unacceptable for these skills to be learned on real patients, and this device is an ideal “real-world” solution for the cost-effective teaching of laparoscopic salpingectomy.

ES24-0515
Selected Posters

Evaluation of Laparoscopic Myomectomy for the Management of Broad Ligament Fibroids.

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Background

Laparoscopic myomectomy (LM) has become the gold standard for the surgical management of fibroids. However, there is limited evidence on the safety of laparoscopic myomectomy of broad ligament fibroids (LMBL).

Methods

Retrospective analysis of 246 consecutive single surgeon LM between 2005 and 2014 was undertaken. Intra-operative measures (duration of surgery, estimated blood loss, insertion of drain), pathological findings (weight and size of fibroids) and length of hospital stay were compared between LMBL (n=9) and laparoscopic myomectomy for all other fibroids (LMO, n=237). Chi-square was used to compare categorical, and Mann-Whitney for continuous variables, with significance at $p<0.05$.

Results

Comparing LMBL to LMO, there was no difference in length of surgery (116 minutes v 115minutes; $p=0.84$), estimated blood loss (333ml v 301ml; $p=0.14$) or drain insertion (0.8 v 0.6; $p=0.95$). However, there were larger fibroids in LMBL than LMO (9.8cm v 7.6cm; $p=0.01$). There was no difference in length of hospital stay (1.7 days v 2.0 days; $p=0.23$). In the LMBL group, there were no complications or a need for blood transfusion.

Conclusions

Our cohort study shows that the intra-operative variables in LM for broad ligament fibroids are comparable to LM for other fibroids, despite the broad ligament fibroids being significantly larger in size. LMBL group did not sustain any complications and were discharged home on average in 1.7 days. We demonstrate that broad ligament fibroid can be managed safely by laparoscopy

ES24-0521
Selected Posters

Ureteral Involvement in Patients with Deep Infiltrating Endometriosis Affecting Uterosacral Ligament.

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Background

Objective: Evaluate which echografic measurement of uterosacral ligament can be used as a predictor fator of ureteral involvement in women with deep infiltrating endometriosis (DIE).

Methods

Methods: Retrospective observational study performed at the Gynecological Endoscopy and Endometriosis Clinic at Santa Casa Medical School, São Paulo – Brazil. We evaluated 117 patients with deep endometriosis in the uterosacral ligament (USL) previously diagnosed by transvaginal echography. The patients underwent laparoscopic treatment of DIE with histological confirmation of endometriosis . Analysed variables were: age, size and side of uterosacral ligament involvement , side ureter involvement, presence of ovarian endometriomas, performed laparoscopic ureterolysis, intraoperative and postoperative complications. The statistical analysis used significant $p < 0.05$.

Results

Result (s): 111 patients were included in this study, all with DIE in the uterosacral ligament and all patients underwent laparoscopic surgery for the complete treatment of DIE. The mean age was 36.0 years old.The prevalence of thickening uterosacral ligament in the echografic was 63.9% of cases bilateral, 25.2% on the left side, and 10.8% on the right side. Of these patients 39 (35.1%) had ureteral endometriosis nodule, with 6 (15.4%) bilateral cases. In our study we found that echografic measurement of left uterosacral ligament equal to 1.95cm had a sensitivity of 71% and specificity of 61% to estimate the risk of ipsilateral ureteral involvement. Regardinfg the right US ligament we found that a thickeness of 1.75cm prsented a sensitivity of 88% and specificity of 72%.Laparoscopic intervention in ureteral endometriosis nodules was ureterolysis in 93,33% (42/45) and ureterolysis plus double J stent in 6,66% (3/45) of patients. And after surgery, 9 (8.10%) patients had complications, 4 (3.60%) transient urinary retention, 2 (1.80%) leakages, 1 (0.90%) stenosis of rectum, 1 (0.90%) rectovaginal fistula and 1 (0.90%) walking difficult.

Conclusions

Conclusion: Patients with DIE in the uterosacral ligament have a greater risk of having ureteral involvement (35,13%). Right uterosacral ligament deep infiltrating endometriotic lesions of 1.75cm and left1.95cm are associated with an increased rate of ureteral involvement. Then the echografic measurement of the uterosacral ligament is an indirect data to estimate the risk of ureteral involvement in endometriosis.

ES24-0529
Selected Posters

Laparoscopy Should Be the Mainstay Surgical Management of Ectopic Pregnancy Irrespective of Site or Haemodynamic Status

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Background

Operative Laparoscopy (OL) is considered the gold standard surgical management of ectopic pregnancy (EP). For EP deemed to require surgical management, we implemented an 'universal OL' programme irrespective of ectopic site or haemodynamic status. Ten years on, we evaluate the uptake of the programme and peri-operative outcomes.

Methods

A 14-year cohort study was conducted of 1030 women who underwent surgical management for ectopic pregnancy. The prospective arm (2003-2014) was compared with the retrospective arm (2000-2002) and evaluated the rate of OL, haemodynamic status, rate of completion of the procedure laparoscopically, rate of extra-tubal ectopics and the involvement of trainees as primary surgeon.

Results

There were 869 women in the prospective arm and 161 in the retrospective arm. The rate of OL before 2003 was 34%. During the prospective period, the OL rate rose dramatically to 89% in 2003 to reaching 100% 4 years in haemodynamically stable patients. The OL rate rose further to 100% in all patients 10 years after implementation (2013). Immediately following implementation of 'universal OL', trainees as primary surgeon decreased (<10%). In 2010 - 2014, trainees have been primary surgeon in 50-64% of all cases and approximately 40% of all haemodynamically unstable cases.

Conclusions

We demonstrate the safe management of all surgical management of ectopics by laparoscopy. With a dedicated team and targeted training, minimally invasive surgery can improve surgical management of all categories of EP.

ACCEPTED FOR POSTER PRESENTATION (135)

ES24-0008
Posters

Hysteroscopic Versus Laparoscopic Sterilization; Safety, Efficacy and Patient Selection. review of literature

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Background

Since licensed in the European Union in 2001, Hysteroscopic sterilization has been increasingly popular amongst women seeking permanent birth control. As a direct consequence, the numbers of laparoscopic sterilization procedures have been declining in favor of the Hysteroscopic outpatient approach. We aim to identify the main advantages and disadvantages of both methods while highlighting the role of patient selection in achieving the desired goal of sterilization with minimal complications and best patient satisfaction rates.

Methods

We reviewed articles published in English language on PubMed and MEDLINE during the last 10 years using the keywords (sterilisation), (permanent birth control), (Essure) and (tubal block). We have also reviewed NICE Guidance on “Hysteroscopic Sterilisation by Tubal Cannulation and Placement of Intrafallopian Implants”. We have also reviewed clinical trials published on the Cochrane database from 2005 to 2014 addressing the same subject.

Results

Hysteroscopic sterilisation is a safe and effective alternative to laparoscopic sterilisation. Appropriate selection of patients together with optimum counseling will play a major role in patient satisfaction rates. Hysteroscopic sterilisation carries the main benefit of being performed on outpatient basis in addition to fewer rates of complications with almost permanent tubal blockage. On the other hand, laparoscopic sterilisation may be more suitable for patients who cannot tolerate an outpatient procedure or in whom the Hysteroscopic approach is deemed to be inappropriate or in the case where the Hysteroscopic service is not yet available. Although the goal of either procedure is to achieve permanent birth control it is one of the main advantages of laparoscopic over Hysteroscopic approach is the ability to reverse sterilisation even though successful pregnancy rates are variable.

Conclusions

Hysteroscopic sterilisation is most effective when patients are appropriately selected to undergo the procedure. Laparoscopic sterilisation is still one of the best methods for achieving permanent birth control and as with the Hysteroscopic approach, patient selection is mandatory. Although current data are very promising further data are still awaited about the efficacy of the Hysteroscopic approach. s who cannot tolerate an outpatient procedure or in whom the Hysteroscopic approach is deemed to be inappropriate or in the case where the Hysteroscopic service is not yet available. Although the goal of either procedure is to achieve permanent birth control it is one of the main advantages of laparoscopic over Hysteroscopic approach is the ability to reverse sterilisation even though successful pregnancy rates are variable.

ES24-0011
Posters

Laparoscopic Management of a Retroperitoneal Tumor in the Pelvis Presenting with Lower Limb Pain.

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Background

We report a case of a 28 years old female, with no past medical history, who presented with pain in both lower limbs on walking.

Methods

Physical examination revealed traction pain in both lower limbs, left more than right side, on walking. Cutaneous examination revealed no café-au-lait spots or subcutaneous neurofibromas. She had consulted a neurologist in the past complaining of similar symptom. All investigations at that time were unremarkable except for a retroperitoneal left presacral solid cystic tumor measuring 2 x 1.8 x 1.3 cm at the level of fifth lumbar vertebra demonstrated on magnetic resonance imaging (MRI). There was also a 5 x 4 x 4 cm right ovarian clear cyst seen.

As the patient continued to suffer from pain in the lower limbs on walking, she was referred to the gynecologist in our tertiary centre. Computed tomography (CT) scan of the spine reported a persistent well-encapsulated 1.8 x 1.3 x 2 cm retroperitoneal cystic tumor in the pelvis. As this was a retroperitoneal mass, a CT myelography was ordered to rule out a Tarlov cyst. Once a Tarlov cyst was excluded, the patient was offered laparoscopic excision of retroperitoneal pelvic cyst.

Results

A 4-ports laparoscopy was performed. The uterus and left adnexa were unremarkable. In addition to the 5 cm right ovarian clear cyst, intra-operative findings revealed a 2 cm retroperitoneal clear cyst in the left pelvis, abutting the lumbosacral trunk. This may explain the symptom that she had been experiencing.

A careful incision was made on the peritoneum overlying the retroperitoneal cyst. The excision of the cyst was performed using careful dissection with sharp scissors and energy device was avoided whenever the nerves were in close proximity. After removal of the specimen, hemostasis was checked. The surgery went smoothly with no complication, lasting 40 minutes. Histological examination of the retroperitoneal cyst came back as partly myxoid neurofibroma, while that of the right ovarian cyst was reported as benign corpus albicans.

Post-operatively, the patient recovered well. Upon discharge, she reported no neurological deficit, and the pain in both lower limbs on walking had reduced in intensity. On follow-up 2 weeks later, the patient was very grateful that she had no more pain on walking.

Conclusions

In conclusion, a retroperitoneal neurofibroma is a rare benign tumor arising from the neural sheath of the peripheral nerves. It is usually an incidental finding, but may become symptomatic if it grows sufficiently large or is impeding the nerves. CT and MRI findings show characteristic features but are non-specific for a neurofibroma. Diagnosis is based on histopathological examination and immunohistochemistry. The goal of treatment is complete excision of the tumor by laparoscopy and this has a good prognosis.

ES24-0013
Posters

Techniques of Endometrial Ablation in Modern Gynaecology
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Background

Endometrial destructive procedures have been reported in the literature since over 100 years ago. Since the 1990's and following the hysteroscopic surgery revolution, endometrial ablation has progressively spared many thousands of patients of having major pelvic surgeries I.e. Hystrectomies. The techniques have gradually evolved through the time from Resectoscopic Endometrial Ablation (REA) techniques to the modern Global Endometrial Ablation (GEA) techniques and the evolution is still on-going. This article aims at providing young gynaecologists with a brief overview on the evolution of the techniques of endometrial ablation from the past to the present and into the future.

Methods
Review of literature in English language published on PubMed and MEDLINE over the last decade. We also looked at the Cochrane Database for Reviews addressing the same subject. We used the keywords (Ablation), (Techniques) and (Hysteroscope) for our search. **Results**

Various techniques have evolved through time. The Primitive (REA) techniques using laser and vaporization have now been replaced by the more advanced (GEA) techniques using Thermal Balloons, Cryoablation, Hydrothermal ablation and Bipolar Energy Ablation with risks and benefits identified specifically for each technique. Although more evidence about the safety, efficiency and feasibility of some techniques are yet to be awaited for.

Conclusions

As the techniques develop, the procedure becomes easier, shorter and safer. However, the technical difficulties need be considered alongside the cost of replacing new devices with newer devices. At the current pace, endometrial ablation has guaranteed its place as a safer, less invasive and effective alternative to Hysterectomy.

ES24-0022
Posters

An Effective New Technique of Removal of Uterine Myoma After Laparoscopic Myomectomy

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Background

Objectives
The purpose of this study is to present a new technique in myoma removal during laparoscopic myomectomy.

Methods

Medical records of patients who underwent laparoscopic myomectomy with a single surgeon from January, 2013 to February, 2015 in our institution. A singleport platform (OCTO^{TM}PortV2-B, DalimsurgNET, Seoul, Korea) and an additional 5-mm diameter port (Kii Advanced Fixation Sleeve®, Applied Medical, Rancho Santa Margarita, CA) were used for accessing of a laparoscopic telescope and instruments. Endobag^{TM} (BS medical, Jeonju-Si, Korea) was used as a removal media of myoma. â€˜Apple-core making methodâ€™, which is a removal process by dissecting the fibroid mass around by a cold knife through the singleport platform incision until forming linear core of the mass. This core making method was initiated by making a triangle-shaped incision on the mass surface, and able to remove the mass without power morcellation.

Results

52 patients underwent laparoscopic myomectomies during the two years and two months. Median age was 52 years old, median BMI was 21.84 kg/m^2 and twelve patients had previous abdominal surgery histories. Uterine manipulators, such as an elevator, did not used during operations for 4 patients. 44 patients had laparoscopic myomectomy only, but 8 patients had either unilateral ovarian cystectomy [3 patients (5.8 %)] or unilateral salpingo-oophorectomy [5 patients (9.6 %)]. 14 patients (23.1%) had pelvic adhesions. Median operation time was 81 minutes (range: 38-277). No intra-operation complication was reported. Pathologic reports revealed 51 leiomyoma and 1 adenomyoma. 9 cases among the leiomyoma had co-existing pathology. The results were as followed; 5 endometriotic cyst or endometriosis, 2 hemorrhagic corpus luteal cyst, 1 mucinous serous cystadenoma, 1 mature teratoma. 3 cases of leiomyoma had degeneration.

Conclusions

Our experience shows that this new technique is a safe and handful process to perform for fibroid mass removal, avoiding use of power morcellation.

ES24-0043
Posters

Total Laparoscopic Hysterectomy with Bilateral Salpingoophorectomy (TLH) and Lymphadenectomy Versus Abdominal Hysterectomy with Bilateral Salpingoophorectomy and Lymphadenectomy in Endometrial Cancer Surgical Staging.

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Background

The surgical staging of endometrial cancer consists of hysterectomy with bilateral salpingoophorectomy and pelvic (sometimes also paraaortic) lymphadenectomy in selected cases. The procedure can be performed via a traditionnal laparotomy or laparoscopically. Both techniques seem comparable in terms of oncological long term results. The aim of the study was to compare the results of the endometrial cancer surgical staging in the laparotomy and laparoscopy group in our Department.

Methods

The study was a retrospective analysis of 97 (49,0%) consecutive cases of patients with endometrial cancer randomly qualified to the TLH with pelvic lymphadenectomy group and 101 patients (51,0%) who underwent the same procedure abdominally. Both groups were compared according to: age, BMI, comorbidities, surgical history, parity, operative time, blood loss (need for transfusion, hemoglobin and hematocrit drop), length of hospitalization, size of the uterus, surgical-pathologic parameters and complications rate. The procedures were performed by the same team, advanced both in abdominal and laparoscopic procedures.

Results

The patients operated laparoscopically were significantly younger than the patients operated abdominally (54,3 vs. 64,7 years). The TLH group had significantly less important comorbidities (31,5% vs. 49,2%). There were no statistically significant differences between groups concerning BMI, parity, size of the uterus, surgical history. The groups didn’t differ according to the clinical - pathologic parameters of the cancer. The mean operating time was shorter in the TLH group (141,77 min. vs. 130,6 min.). Laparoscopy was associated with significantly less blood loss and shorter hospitalization. There were 5 perioperative complications after laparoscopy (subcutaneous emphysema, oliguria and 3 cases of lymphocoele) and 22 in the laparotomy group (including wound infection in 13 cases).

Conclusions

Total laparoscopic hysterectomy with pelvic lymphadenectomy in endometrial cancer is a safe and feasible procedure. It is associated with a significantly lower risk of complications, shorter hospitalization, less blood loss and better cosmetic outcome. It is a good alternative for laparotomy in hands of an experienced surgeon.

ES24-0045
Posters

Contribution of a Virtual Hysteroscopic Simulator in the Learning of Hysteroscopic Myoma Resection

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Background

Uterine myomas are a frequent pathology affecting 20% of womens of reproductive age. Myomas induce abnormal uterine bleeding, pelvic pain and increase the risk of infertility and obstetrical complications. Symptomatic sub-mucosal myomas are classically treated by hysteroscopic resection. Simulation is a method of education and training. It could be improve quality and security of cares.

The aim of this study is to assess the interest of a hysteroscopic simulator for the resection of myoma by novices surgeons.

Methods

All medical students in maternity were recruited, in a prospective study, in august 2014. The virtual-reality simulator VirtaMed System (VirtaMed AG, Zurich, Switzerland) was used to perform the hysteroscopic training (Figure 1). Every student received a short demonstration of myoma resection. The practice consists of a submucous myoma type 0 resection. The procedure and the evaluation were performed before and after a specific training in hysteroscopic resection of sixty minutes long. The main outcome criteria was time for the resection before and after training. The second criteria concerned fluid quantity used and the number of contact between optic and uterine cavity. Students' satisfaction was evaluated too.

Table 1 (report in the results part)

	before			after			p value
	average	standard deviation	min-max	average	standard deviation	min-max	
time for procedure (s)	335,4	112,5	71-416	170,85	92,9	65-414	< 0,01
fluid quantity used (mL)	717,1	275,4	185-1046	335,9	145,9	84-631	< 0,01
number of contact between optic and uterine cavity	3	4,0	0-12	0,2	0,9	0-4	0,012

Results

Twenty students aged from 22 to 24 years were included. The time for the procedure was significantly reduced after training (170s versus 335s, p<0,01). The results are resumed in the table 1. All students were satisfied.

TABLE 1: Data for the criterias mesured by the simulator before and after (in the methods part)

Conclusions

The results suggest that hysteroscopic simulator enhances and facilitates hysteroscopic resection for novices surgeons.

ES24-0054
Posters

Operative Treatment of Ectopic Pregnancies - An Overview of Operative Procedures Without Early or Late Postoperative Complications in 2014

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Background

Ectopic pregnancies are usualy resolved by apropriate surgery. As soon as a proper diagnosis is made, the patient is informed, and after giving consent, prepared for surgery and operated. The procedures can be performed traditionaly through low transverse laparotomy, or by laproscopy. Due to higher costs of laparoscopic procedures (an average hospital day in Serbia has a very low cost), until recently laparotomy was the predominant procedure. But, developement of laparoscopic procedures, and common knowledge in public, has led to an increased interest for laproscopic procedures. Patients are often demanding laparoscopy for surgical treatment of ectopic pregnancies, and even discharging themselves from hospitals not performing laparoscopic procedures to go for the ones current with laparoscopy. Gyn and Obs Clinic Narodni front was one of the pioneers in laparoscopy in Serbia, and nowadays this is paying back in an increased patient interest for having surgery in our Clinic.

Methods

We have analysed data on ectopic pregnancies for 2014. Having in mind that Gyn and Obs Clinic Narodni front is one of two largest hospitals in Serbia (the other hospital is similair in size), and a champion in laparoscopic procedures, this data is indicative of trends in Serbia, and mid Europe developing countries.

Results

Out of 6700 operations performed in 2014, 98 ectopic pregnancies were operated upon. 49 of these were performed by laparoscopy (50%), and the remaining were done by laparotomy. The laprotomies were usualy done in the afternoon (on-call) hours, or close to the end of the working hours, due to lack of sterile equipment, or trained doctors. Still an efort was made to perform laparoscopies even in the on-call hours, due to an increased patient interest in the procedure. We belive that the fact that no laparoscopies were canceled in favor of laparotomies under false pretext of „beeing a faster procedure“ is of great importance. Also no laparoscopic procedures were converted to laparotomies during the reviewed period of time. The fact that 81% of surgeries were salpingectomies is interesting (both laparoscopic and by laparotomy), and only in 19% of cases an incision and extraction of the pregnancy from the fallopian tube were done. This can be explained by an increase in IVF popularisation, and also in patients being more informed about possible complications of the later procedure.

Conclusions

Following figures from west European countries, as well as the USA, we can safely say that Serbia is on the turning cornerstone for having laproscopic operative surgery to be the main procedure for treating this urgent medical condition in gynecology.

ES24-0056
Posters

Pregnancy Rates After Laparoscopic Treatment of Minimal or Mild Endometriosis - 2,5 Years of Experience

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Background

Minimal or mild endometriosis is frequently diagnosed in infertile women. It is often treated by coagulation of the lesions. Some studies establish that this improves fertility rates. We carried out a retrospective analysis of our patients from January 2012 to July 2014 to determine the frequency of endometriosis in infertile women and whether laparoscopic surgery enhanced fecundity in infertile women with minimal or mild endometriosis.

Methods

We studied 297 infertile women 20 to 39 years of age who underwent laparoscopy due to infertility and determined the percentage of existence of minimal or mild endometriosis among these women (according to rASRM classification of endometriosis). During laparoscopy they underwent coagulation of visible endometriosis. We observed the percentage of pregnancies during 26 weeks after laparoscopy among these women

Results

During 3 years there were 415 laparoscopies due to infertility. In 184 cases (44.4%) we found minimal or mild endometriosis. All of them underwent bipolar coagulation of endometrial lesions. There also were 35 cases of endometriosis of higher severity and 13 cases of minimal or mild endometriosis accompanied with tubal occlusion. Among the 171 women with minimal or mild endometriosis and passable tubes, who had coagulation of endometrial lessions 58 (33.91%) became pregnant during 26 weeks after operation. There was no control group and the cases accompanied with other pathologies were not excluded (Myomas 22.3%, paratubal cyst of “Morgagni” 56.2%, endocervical and endometrial Polyps 9,5% and 12,4%)

Conclusions

According to this retrospective analysis presense of endometriosis in infertile women reaches 52.8% (219 women with various degrees of endometriosis from 415 infertile cases). Among them 84.02% - minimal or mild endometriosis. 15.98% - moderate or severe endometriosis. Pregnancy rate after laparoscopic coagulation of endometrial lesions during 6-12 month follow-up was 33,91 % (58 pregnancies from 171 women) In infertile patients with minimal or mild endometriosis

ES24-0057
Posters

One Problem - Three Decisions, Which One is the Best?

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Background

At present, resectoscopy can be considered the “gold standard” procedure for major intrauterine pathology. The incidence of endometrial polyps reported in the literature is about 20% to 30% of the female population. The aim of this study was to provide the clinical and histological evaluation, to compare the impact on tissues of the “cold loop”, monopolar loop and bipolar loop.

Methods

A retrospective comparative study was conducted in two clinical centers from May 2014 to April 2015. A total of 75 women with endometrial polyps were included. They had menorrhagia, metrorrhagia, infertility or were asymptomatic. All patients were divided into three groups. For removal polyps the hysteroscopic “cold loop” (Group 1, n=25) or electrosurgical resection with monopolar loop (Group 2, n=25) or electrosurgical resection with bipolar loop (Group 3, n=25) were performed.

Results

No complications occurred in the patients from all groups. The menstrual cycle became normal in the patients from all groups, but we observed recurrence in Group 1 (8%). The number of patients who got pregnant was higher in Group 1 and 3 when compared with Group II (40% vs 50% vs 25%). Collateral damage to tissues was more profound in Group 2.

Conclusions

Bipolar resectoscope has the potential to replace monopolar-based intrauterine interventions and may become the “gold standard” for infertility patients. However the bigger group of patients with longer follow up period is needed.

ES24-0067
Posters

Study of the Factors Motivating Refusal of Women to Participate to a Randomized Clinical Trial in Gynecological Surgery. Retrospective Observational Bicentric Study.

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Background

Randomized controlled trials (RCT) in surgery are often subject to difficulties inherent in the study design and recruitment of patients. Women's participation rate to RCTs in surgery is relatively low and varies from 30 to 70%. These recruitment problems might induce a weak scientific value and even stop the study. Thus, optimizing recruitment is a challenge for Surgical Research. In contemporary literature, we lack data on motivations and profile of women who refuse to participate in a RCT in surgery.
The objective of the present study was to explore the potentially influential factors affecting women's decision to decline participation in PROSPERE trial, comparing laparoscopic sacrocolpopexy (LSCP) to vaginal mesh for cystocele repair.

Methods

Retrospective, observational, qualitative, bicentric study conducted in France in two departments of gynecology. Patients included were those who refused to participate to PROSPERE trial in both centers. Factors of non-participation in the trial were recorded at the time of the first visit. A control group consisted of women who agreed to participate in the trial was also analyzed.

Results

In both centers, 139 were eligible to participate in the trial but 35 of them (25%) refused. Vaginal mesh was finally performed in 21 (60%) patients and LSCP in 14 patients (40%). 32 women agreed to declare their refusal motivations. The control group consisted of 20 women, including 9 operated by vaginal mesh and 11 by LSCP. Patient's characteristics were similar in the both groups. Most influencing factor in refusal for participation was "previous choice of technique" in 50% cases (16/32), followed by "geographical remoteness and difficulties for additional visits" in 41% cases (13/32), and finally by "do not accept the concept of randomization" in 22% cases (7/32). The most influencing factor in women's acceptance was interest in helping others by "supporting medical research" in 100% cases (20/20), followed by "potential personal benefits and close follow-up" in 60% (12/20).

Conclusions

Our study identified the most influential factors relevant to women decision-making whether or not to participate in RCT in surgery. A number of factors leading to refusal of participation are potentially correctable leading to better recruitment rates in future RCTs. Optimization of information on the principle of randomization, limiting the number of additional visits and a better knowledge of the profile of patients could help researchers improve participation rates.

ES24-0075
Posters

The Role of Laparoscopy in the Diagnosis and Treatment of Chronic Pelvic Pain Caused by Endometriosis of Appendix Vermiformis: A Case Report

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Background

Endometriosis is defined as functioning endometrial tissue outside of the uterine cavity. Endometriosis of the appendix vermiformis is very rare entity. Its clinical presentation varies from asymptomatic to acute abdominal pain.It sometimes causes abdominal cramps, nausea, chronic pelvic pain, lower gastrointestinal hemorrhage, intussusception, perforation, or acute appendicitis While endometriosis is a common disorder in women of reproductive age, appendiceal endometriosis accounts for less than 1% of all pelvic endometriosis lesions and about 3% of all gastrointestinal endometriosis.

Methods

A 28-years-old female patient, nulliparous, was admitted to emergency clinic with a complaint of pain in rigth lower part of abdomen, which had persist 5 days and had been more progressively.The patient stated that the pain she suffered from was not associated with her menstrual cycle.The vital findings were stable, with a body temperature of 36.5 °C. A physical examination revealed severe abdominal tenderness and guarding with a voluntary component in the right lower quadrant.The white blood cell count and percentage of neutrophils were 1153/mm^3 and 82,1%, respectively. A urine analysis showed no pyuria or hematuria; moreover, a urine human chorionic gonadotropin assay was negative.Transabdominal and tranvaginal ultrasound examination show small amount of fluid in abdominal cavity.

Results

Physical examinations indicated that it was acute appendicitis.We peroformed laparascopic appendectomy. During operation we found ruptured haemorrhagic cyst of left ovarii and we also did cystectomy .Histopathology confirmed endometriosis of appendix.She left hospital for one day. Postoperatively, she complained on chronic pelvic pain and we did once more laparasocpy after 3 months. Gynecological examination was normal except higher tumor marker Ca-125(49,9i.j).During operation we didn't found endometriosis inside abdominal cavity and we performed adhaesiolysis.

Conclusions

The main cause and origin of chronic pelvic pain in young reproductive women intrigue gynecologist and surgeons. One of cause could be appendiceal endometriosis.. A preoperative diagnosis is difficult and very often present as acute appendicitis.Appendiceal endometriosis was first described in 1860 by Von Rokitansky and definitive diagnosis is made by only postoperative histological examination.Laparascopy has a big role in the diagnosis and treatment because enable patient fast recovery with minimal scarves.

ES24-0085
Posters

Which is the Impact of Obesity On the Surgical Management of a Series of 178 Cases of Endometrial Cancer?

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Background

Forty percent of our patients treated for endometrial cancer are obese or morbidly obese. We studied the impact of obesity on surgical approach, completion and morbidity of the surgery and on survival.

Methods

Two groups of obese and non obese women with endometrial cancer have been matched according to the age, comorbidities, ASA score, histology, tumour grade and FIGO stage. Non obese patient had a body mass index (BMI) <30 kg/m^2 and obese patient a BMI ≥ 30 kg/m^2; morbidly obese patient had a BMI ≥ 40 kg/m^2.

Results

89 patients were enrolled in each group between 1997 and 2013, among which 25 morbidly obeses. Pelvic lymphadenopathies were described on pre operative MRI in 16% of obese patients vs 7% of non obese patients (p=0,02). Mini invasive surgery was performed in 67 to 72 % of patients (NS). Regarding to primary surgery and restaging procedures, there was no significant difference between the groups in surgical approach, incomplete procedures' rate, lengh of stay, operating time and per and post operative complications. No difference was found for adjuvant brachy, radio or chemotherapy and for overall survival and disease free survival.

Conclusions

Laparoscopy is feasible without increasing per and post operative morbidity. Surgical management of obese patients treated for endometrial cancer should be the same that the one recommended for every patient.

ES24-0090
Posters

Multifocal Implants of Morcellated Tissue into the Peritoneum and Abdominal Organs One Year After the LASH with Power Morcellation of the Large Uterus with Adenomyosis.

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Background

43 year old women hospitalized in the 2nd Department and Clinic of Gynecology and Obstetrics in Wroclaw in November 2012 due to the huge uterine fibroids and hypermenorrhea.
Medical history: 2 births vaginally, 1 cesarean section,2000 - removal of the endometrial polyp.
2007 - 2012 IUD (Mirena)2012 - HSC with endometrial biopsy: Uterine cavity reduced and deformed by the tumor localized in the posterior wall of the uterus.
Ultrasound examination was carried out, revealing uterus enlarged by the structure localized in posterior wall in diameter 70mm. Echo of endometrium and ovaries without pathologies.During hospitalization the patient underwent LASH with bilateral adnexa preservation with cervical suspension to broad ligaments and intraoperative morcellation of the uterus.
Postoperative period uncomplicated.Histopathological examination: endometrium in stadio proliferationis. Adenomyosis.
From 21st January to 24th January 2014 patient was hospitalized in the Department of Vascular,General and Transplantation Surgery in Wroclaw due to nonspecific abdominal pain. During the hospitalization CT and USG examinations was carried out and shown at the bottom edge of the right hepatic lobe solid structure with dimensions 1,4x1,3x2,3cm (TRxAPXCC) with minor density bands connecting to the peritoneum. Another solid structure with similar morphology and nature of the contrast enhancement was seen close to left external iliac vessels dimension 2x2,8x2,4cm (TRxAPxCC). Both structures were invisible in CT scan performed in 26th March 2012.The patient was discharged home with recommendations of supplementary imaging examination MRI in four months.From 14th Feb to 25th Feb 2014 she was re-hospitalized in the Department of Vascular,General and Transplantation Surgery in Wroclaw due to severe abdominal pain.
On 20th Feb 2014 patient underwent laparoscopy with excision of the lesions localized in several regions : parahepatic, left iliac fossa, posterior wall of bladder, descending colon and rectum.Postoperative period uncomplicated and asymptomatic.
Histopathological examination: the material from the cervix, the rear wall of the bladder and small intestine - fibroids leiomyomata; in the material from left iliac fossa, and parahepatic area - external endometriosis.

Methods

Case report

Results

Spread of external endometriosis and fibroids to several regions into abdominal cavity as a result of power morcellation.

Conclusions

Power morcellation of uterus can lead to multifocal implants of morcellated tissue into the peritoneum and abdominal organs subsequently give nonspecific abdominal pain.

ES24-0096
Posters

Comparison of Spinal vs General Anesthesia in Gynecologic Laparoscopic Surgery and Assessment of Total Oxidant, Antioxidant Levels and Oxydative Stress Index: A Prospective Controlled Study

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Background

The aim of the study is to compare spinal anesthesia vs general anesthesia in terms of safety, anesthetic parameters and also assessment of total oxidant, antioxidant levels and oxidative stress index.

Methods

Sixty patients between 18-45 years of age with ASA I-II status that were planned to undergo gynecologic laparoscopy were randomly divided into two groups. Group I (n=30) have received standart general anesthesia, Group II (n=30) have received spinal anesthesia (heavy bupivacaine 0.5 % 10 mg , 2cc + fentanyl 25 µg, 0.5cc) . Arterial and venous blood samples were collected pre and postoperatively. Pulse rates, peripheric oxygen saturations, systolic and diastolic blood pressures and end tidal CO_2 values were recorded before induction, after induction, and at the 5th, 10th, 15th, 30th, 60th, 90th and 120th minutes. Adverse events including hypotension, tachycardia, postoperative nausea-vomiting, hoarseness, sore throat were recorded.

Results

Mean arterial pressures (MAP) were significantly lower in Group II ($p<0.05$). Intra group analysis of arterial blood gas pH measurements were significantly lower postoperatively ($p=0.000$). There were more intraoperative hypotension in Group II when compared with Group I ($p=0.038$). Postoperative time of pain perception and analgesic consumption was higher in Group I ($p=0.000$). Postoperative nausea-vomiting, sore throat and hoarseness was more observed in group I ($p=0.000$). There was no difference in terms of total oxidant, antioxidant and oxidative stress index between the groups (p values were 0.849, 0.391, 0.312, respectively).

Conclusions

The lower MAP in group II can be expected because of spinal anesthesia but this decrease was in physiological ranges without any negative effects on patient hemodynamics. Similarly, there was more intraoperative hypotension in group II due to both spinal anesthesia and trendelenburg position but none required management with an inotrop. The decrease in postoperative blood gas pH was comparable between two groups suggesting that CO2 insufflation for pneumoperitoneum and increase in intraabdominal pressure in spinal anesthesia did not cause hypercapnia and ischemia. We also did not detect any significant difference between oxidative stress parameters of the groups.
We conclude that laparoscopy with spinal anesthesia may be a reliable, less invasive and common sensical alternative to general anesthesia in selected cases. Further large scaled, randomized prospective studies are needed.

ES24-0098
Posters

Endometriosis in Adolescencents with an Analysis of 13 Cases

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Background

Objectives:To investigate the clinical features diagnosis and management of endometriosis in adolescents.

Methods

Methods:A retrospective study was carried out to analysis the clinical data of 13 adolescents with endometriosis admitted to Beijing Obstetrics and Gynecology Hospital affiliated to Capital University of Medical Sciences between 2005 and2011ï¼ŽOperation method included laparoscopic or abdominal endometriosis cystectomy .Those patients with anomalies had undergone surgery to remove the obstructive anomalies at the same time.

Results

Results:Operation time of 13 cases was 35-245 min, average 89.5 min. Intraoperative blood loss was 10- 300 ml, average 68.7ml.
Patients without genital tract anomalies were 9 cases.8 patients were treated by laparoscopy; 1 patient by open operation. Genital tract anomalies were 4 cases （30.8%，4/13）
.The disease stage is classified I-Ⅳ according to the revised American Fertility Society(AFS).
2 cases presented with stage Ⅰ， 1 cases with stage Ⅱ, 7cases with stageⅢ, 3 cases with stage Ⅳ.7 cases received medical therapy after surgery.
10 Cases were followed up for 6-72 months,1 case of recurrence.

Conclusions

Conclusionsï¼šAdolescent endometriosis often accompanied with genital tract anomaliesand the main symptoms are dysmenorrhea or pelvic pain .Surgery and pathology should be undeaaken to make a definitive diagnosis of endometriosisï¼ŽMedical therapy after surgery should be chosen on individual situations.

ES24-0100
Posters

High-risk HPV-DNA Load On the Monitoring Value of Cervical Intraepithelial Neoplasia After Leep Operation

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Background

To investigate the monitoring value of high risk human papillomavirus (HR-HPV) DNA load in cervical intraepithelial neoplasia (CIN) after LEEP.

Methods

From Januray 2012 to December 2012, 157 patients with CIN were treated by LEEP in our center. All patients were regularly check the TCT and HR-HPV-DNA, compare the two and the relationship between CIN recurrence or residual.

Results

ï¼ˆ1ï¼‰LEEP surgery is safe and effective. ï¼ˆ2ï¼‰After 2 years, the recurrence rate of CIN was 7.64% (12/157), HR-HPV turning negative rate was 63.1%(99/157).ï¼ˆ3ï¼‰The existence of correlation between HR-HPV DNA load and CIN residual/recurrence.

Conclusions

TCT joint HR-HPV DNA check can be used to predict residual/recurrence of CIN after LEEP treatment.

ES24-0103
Posters

Laparoscopic Myomectomy - Experience of Oporto Hospital Center

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Background

Leiomyomas are the most common gynecological benign tumor and a common cause of morbidity in women of reproductive age. Surgical treatment of uterine fibroids is recommended when they become symptomatic and laparoscopic myomectomy represents a therapeutic option for women who wish to preserve fertility or do not accept the loss of the uterus. Our objective is to analyze laparoscopic myomectomy indications, surgical complications, number of fibroids removed, their localization and average diameter of all laparoscopic myomectomies carried out at our centre during the last four years

Methods

Descriptive prospective study, that included all patients who underwent laparoscopic myomectomy during 2011-2014 in our center. Parameters registered: myomectomy indications, surgical complications, number of fibroids removed, their localization and average diameter

Results

Our study included 84 patients with an average age of 36,3 years (22- 55 years). The main indications were abnormal uterine bleeding, lower abdominal pain and infertility. In the majority of cases (79%) only one fibroid was removed (maximum of four), with an average size of 5,5cm (maximum of 10cm). In 80% of cases fibroids presented an intramural/subserous component and a corporal/fundus location. Mean hospitalization time was 2,4 days. There were no intra or post-operative major complication. There was necessity to convert to laparotomy in 1 case

Conclusions

Laparoscopic myomectomy is a safe procedure with good results. It presents a short hospitalization time and a low complication risk and should therefore be a valid surgical procedure recommended in selected cases

ES24-0104
Posters

Office Hysteroscopy: Improving Patient Safety.

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Background

An adverse event (AE) is an unintended injury or complication that results in disability at the time of discharge, death or prolonged hospital stay and is caused by health care management rather than by the patient's underlying disease process.

There is growing interest in patient safety, which led to the creation of a Global Patient Safety Challenge by WHO in 2004, with the aim to improve health care outcomes. A significative incidence and health care impact of adverse events has been shown in multiple studies in developed countries. In Portugal, an incidence rate of 11.1% AEs was found in hospitals, of which around 53.2% were considered preventable. The majority of AEs were associated with surgical procedures, drug errors and hospital acquired infections. Most AEs resulted in minimal or no physical impairment or disability, but 10.8% were associated with death. Furthermore, 49,7% of AEs occured in room or nursery and 23,9% in the operating room.

Hysteroscopy is a procedure that routinely has been performed in the hospital environment but is feasible in office care, without the need for general anaesthesia or hospital admission. The aim of this study is to quantify adverse events in office hysteroscopy.

Methods

Retrospective study in a military hospital (Hospital das Forças Armadas, Lisbon) including all office hysteroscopies performed from May 2008 to March 2015.

Results

During this period 732 hysteroscopies were performed, including 340 polipectomies, 50 myomectomies, 30 contraceptive device insertion (Essure®), 5 intrauterine contraceptive device removal and 4 uterine septoplasties. The volume of the excised masses ranged from 1 to 45 mm, with a mean of 13mm. Women average age was 54 years (ranging from 14 to 92 years) and 64% had previous vaginal births while 48% were postmenopausal. The average procedure length was 24.8 minutes, and in 23 cases (3%) it was not finished resorting in posterior elective ressectoscopy in the operating room. The mean score in the scale of pain was 3.95 (0-10) with 17.9% patients requiring hysteroscopic anesthesia. There were no described adverse events in these procedures, such as hospital-incurred patient injury, hospital-acquired infection or sepsis, adverse drug reaction, unplanned visit to the operating room, dissatisfaction or correspondence indicating litigation or death.

Conclusions

Office hysteroscopy, not only is more convenient for patients and potentially reduces health costs, as it appears to improve patient safety by avoiding hospital routines and the associated adverse events.

ES24-0113
Posters

Gynaecological Procedures and Surgery Under Procedural Sedation and Analgesia (Psa) in a Dutch Out-patient Clinic

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Background

To assess procedure and admission time, pain scores, completeness of procedure and safety among patients undergoing various procedures under PSA in an office based setting.

Methods

In this prospective cohort study we included all patients undergoing diagnostic or operative hysteroscopies and patients having an IUD placed or removed under PSA in the gynaecologic out-patient clinic of a teaching hospital. We registered time of procedure and admission, used scope, completeness of the procedure, surgical or anaesthetic complications and the visual analogue scores (VAS) before, during and after the procedure and during menses. We also registered time of procedure and admission of comparable procedures performed in the OR under general or spinal anaesthesia.

Results

To date we performed 98 procedures under PSA: endometrial ablations (14), hysteroscopic removal of myomas (12), polyps (39), retained products of pregnancy(RPP) (5) and synechiae (6), diagnostic hysteroscopies (14) and IUD removal/placement (8). Patients had a mean age of 46,3 years. 26,5% was postmenopausal and 38,8% were nulliparous (vaginally). Median VAS was 0 before, during and after the procedure with a range of 0-10, 0-2 and 0-7 respectively. Median VAS during menstruation was 4 (range 0-10). Median time of procedure was 11:17 min and time of admission 2:20 hour. In a cohort of 98 identical procedures performed in an OR setting, we observed median procedure time of 18:00 min and median admission time of 7:47 hour. These are statistically different compared to the PSA cohort (both $p<0,001$). One patient was admitted with fever, 2 days after endometrial ablation, she was treated with antibiotics and recovered soon. Cultures were negative. In 4 patients removal of the intracavitary pathology was incomplete: twice because of underestimation of pathology size, once because of poor visibility and once because of the patient tightening her legs despite proper sedation and analgesia. We found no significant differences in VAS or time of procedure/admission between vaginal nulli- and multiparous women. VAS was not different when using a 5.6mm or 9.0mm scope. Procedure time differed significantly between the 5.6 and 9.0mm groups ($p=0,004$) though.

Conclusions

Our cohort study of women undergoing gynaecological procedures and surgery under PSA showed procedure and admission times that are significantly lower compared to the same sort of procedures in OR. We also found low VAS scores, and a low rate of complications and incomplete procedures. The use of bigger instruments (9.0mm) does not make a difference in the patient’s pain experience. Longer procedure time with these instruments can be explained by the size and structure of the pathologies in which 9.0mm instruments are used. Our experience with PSA in an office based setting is very positive. We think it provides a good alternative for a range of procedures normally performed in an OR setting.

ES24-0115
Posters

Ergonomics of Laparoscopic Instruments and the Importance of Haptic Feedback: the Surgeons' Perspective.

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Background

Haptic feedback is drastically reduced in laparoscopic surgery compared to open abdominal surgery. This is mainly caused by the friction within instruments and dynamic properties of the laparoscopic surgical setup. Haptic feedback enables endoscopic surgeons to perceive information on interaction forces between instrument and tissue. This is essential information regarding accurate regulation of tissue manipulation forces and recognition of differences in tissue consistencies. Introducing enhanced haptic feedback in laparoscopic instruments might well be beneficial for surgical safety and efficiency by enhancing crucial perception abilities, improving force regulation and tissue recognition. The aim of this study was to evaluate surgeons' preferences for laparoscopic instruments and expectations about haptic feedback.

Methods

A questionnaire was designed to determine the surgeons' preferences for laparoscopic instruments and to identify their expectations regarding haptics in future instrument developments. Current use and assessment of instruments was investigated by means of both multiple choice and open ended questions. Surgeons' expectations regarding haptic feedback was examined by means of rating user scenario's and potential benefits on a six point scale, where 0 means 'not useful' and 5 means 'very useful'. A hard copy of the questionnaire was distributed among a subgroup of attendees of the annual ESGE congress in 2014, the annual meeting of the Dutch Working Group Gynaecological Endoscopy and an online version was distributed among the members of the Dutch Society of endoscopic surgeons.

Results

From the 276 contacted subjects, 95 completed the questionnaire (response rate of 34.4%). No consensus was found among specialists regarding handle preferences for graspers, either with or without haptic feedback. Noteworthy, 75.6% of respondents reported physical complaints directly attributable to the use of laparoscopic instruments. Respondents indicated that integrating force feedback into laparoscopic instruments might well be beneficial for surgical safety and efficiency. According to surgeons, the added value of haptic feedback could be of particular use in feeling differences in tissue consistencies (3.5±1.6), feeling how much pressure is being applied (3.5±1.4), locating a tumor or enlarged lymph node (3.2±1.7), feeling arterial pulse (2.7±1.5), and limiting the force on the surgeon's hand (3.4±1.5).

Conclusions

Despite increased ergonomics research, this study shows a high prevalence of physical complaints directly related to laparoscopic instruments among endoscopic surgeons. These issues should be addressed in future research and development of laparoscopic instruments. This study further highlights the clinical importance of haptic feedback in laparoscopic surgery indicated by surgeons of different disciplines. Both patients and surgeons may well benefit from enhanced haptic feedback in laparoscopic instruments.

ES24-0134
Posters

The Usefulness of Ultrasonographic Evaluation of Malignant Ovarian Tumors by IOTA (International Ovarian Tumor Analysis) Study

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Background

The diagnosis of ovarian tumors before surgery is important, because it allows us to decide if the tumor is benign, thus allowing for a laparoscopy rather than full surgery. In Japan, we usually use MRI (magnetic resonance imaging) scans to diagnose an ovarian tumor before surgery. Meanwhile in Europe, they use ultrasonography to diagnose an ovarian tumor before surgery. To clarify the usefulness of ultrasonographic evaluation by using IOTA study for malignant ovarian tumors.

Methods

We compared the rate of proper diagnosis of ovarian tumors using ultrasonography and using MRI scans from February 2014 to February 2015. We used IOTA criteria as the tool for evaluation of the diagnosis using ultrasonography. On the basis of the previous research, we set 10% of the POM as the cutoff value. Then we diagnosed the ovarian tumors which were over 10% of the POM as malignant. On the other hand, under 10% of the POM were benign. Our studies were approved by our hospital's research ethics committee.

Results

We had a total of 143 ovarian tumor surgeries. 127 were benign, 13 were malignant and 3 were borderline malignancy (tumor of low malignant potential). The median percentage of POM in benign ovarian tumors was 1.6% (0.1-14.1). On the other hand, the median percentage of POM in malignant ovarian tumors was 90.6% (12.6-99.5). We set 10% as the cutoff value. Then there were 20 cases which were over 10% of the POM. 16 cases were malignant, and 4 cases were benign. The ovarian tumors which were under 10% of the POM were all benign. We pre-diagnosed that 23 ovarian tumors might be malignant using MRI scans before surgery. After surgery, 16 were malignant and 7 were benign. The sensitivity and specificity of the proper diagnosis of ovarian tumors using ultrasonography and MRI scans was not different, but the positive predictive value of ultrasonography was superior to that of MRI scans.

Conclusions

The present study indicated that the benign ovarian tumor showed a low POM score and the malignant ovarian tumor showed a high POM score when we used IOTA study. When diagnosing ovarian tumors, ultrasonography is easy and useful. It is concluded that ultrasonography is not inferior to MRI scans when diagnosing ovarian tumors.

ES24-0135
Posters

Comparison of Hysteroscopic Findings and Histopathologic Diagnosis in Premenopausal Patients with Abnormal Uterine Bleeding

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Background

To compare the hysteroscopic findings and histopathologic results of premenopausal women with abnormal uterine bleeding who underwent hysteroscopy and biopsy.

Methods

1918 premenopausal patients who attended to the Gynecology Department of Ankara Dr Zekai Tahir Burak Women' Health, Education and Research Hospital between January 2012 and February 2014 with abnormal uterine bleeding constituted the study group. In the hysteroscopy logs, demographic and reproductive features of patients were identified. All the patients underwent hysteroscopy and endometrial biopsy. Hysteroscopies were performed by using a 4 mm Karl-Storz telescope with saline as distension medium. Hysteroscopic findings and histopathological results were classified as normal, endometrial polyp, submucous myoma, endometrial hyperplasia, endometrial cancer and others (lost intrauterine device, adhesion).

Results

Among 1918 hysteroscopic findings, normal endometrium was the most frequent finding (51.9%) and then endometrial polyp (43.6%),submucous myoma (2.3%),endometrial hyperplasia (1.5%) and lost intrauterine device or adhesion (0.7%) was reported. The median endometrial thickness measured by transvaginal ultrasonography was 11 mm with a range of 7-20 mm. The most frequent histopathologic diagnosis was normal endometrium in 55.5% of patients and endometrial polyp was the second most common diagnosis with an incidence of 40.6%. Submucous myoma (2.3%),endometrial hyperplasia (1.5%) and lost intrauterine device or adhesion (0.7%) were the other histopathologic diagnoses. No endometrial cancer was reported as hysteroscopic finding and histopathologic diagnosis.

Conclusions

Hysteroscopy is important in the evaluation of abnormal uterine bleeding in premenopausal women. Hysteroscopic findings and histopathologic diagnoses might correlate well in the experienced hands.

ES24-0139
Posters

Work-based Learning: Evidencing Development of Effective Nurse Hysteroscopy Practice

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Background

In 2001 the first nurse Hysteroscopy programme was commenced using a Work Based Learning approach. There will be a short description of Work based Learning. This paper will examine the resultant effectiveness of the nurses in practice. In 2014/15 the 2nd Multi-centre Audit of Nurse led hysteroscopy services was undertaken. It has examined the practice of Nurse Hysteroscopists working in outpatient (office) settings. The parameters of the audit questions are derived from the competency criteria that forms part of the Masters level training programme and best practice (RCOG 2011). The presentation will map how effective the nurses in delivery a service to women. Evidence will also be drawn from my doctoral thesis with an emphasis on the significance of organisational cultures that can impact on effective care

Methods

The latest national audit results will be presented. In 2014 practicing nurse hysteroscopists were invited to complete a detailed real time audit questionnaire, using data from the clinics as they occurred. There were 22 nurse respondents who examined over 1000 women within the parameter of 50 cases or 3 months, whichever came first. The data will demonstrates that the context of the programme to develop the nurses, along with an overview of the competency structure. Some qualitative comments from my doctorial study about nurses and their training experiences will be used to explore optimal environments for practice.

Results

The results from the national audit 2015 the results were analysed in the context of key literature. There has been a shift in the types and numbers of women that nurse hysteroscopists are seeing and or treating. There is evidence that they are seeing a wider range of pathologies including an increasing number of women with fertility issues. The nurses are 100% safe and there has been a reduction in the number of “failed” hysteroscopies, with some having 100% successes. In the 74 cases where there was failure these tended to occur where the nurses had the highest percentage of Post-Menopausal women attending clinics.

Conclusions

The Work -Based Learning approach of masters level theory and competancy is successful and produces safe nurse practitioners. There are clear areas of successes in the context of the training programme with results showing that nurses become well established within their clinics. However the competencies log book should be reviewed to guide the trainers in relation to supporting the nurse in management of cervical stenosis, pain management and women’s choice. In the light of the frequency of fertility investigations the programme content should be reviewed.

ES24-0142
Posters

Cervical Preparation with Hydroscopic Dilatator Before Hysteroscopy: Effect On Pain Scores and Ease of the Procedure

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Background

Aquacryl hydrogel is a synthetic rigid hydroscopic gel rod, proposed to be used for cervical ripening before obstetric interventions such as; termination of pregnancy or preinduction of labour. Gynecological interventions that need cervical preparation such as hysteroscopy or insertion/removal of an intrauterine device are other indications. The agent effects cervix by two mechanisms, first by absorbing water from the cervical tissue which results in softening of the cervix and second widening the cervical canal with a radial power after expansion. This study aims to evaluate the use of hydroscopic dilatators before hysteroscopy in order to determine if any favorable effect exist either for the patient (pain scores) or for the surgeon (ease of the procedure).

Methods

Forty-three reproductive age women with different indications for hysteroscopy were randomized to receive hydroscopic dilatators for cervical preparation (n=16) or no intervention before the procedure (n=27). The hydroscopic dilatator was administered through the cervical canal, visual analog scale (VAS) was used to evaluate pain scores after the administration of the hydroscopic dilatator until the operation. Analgesic administration was done in case of a VAS score >4 or patients' demand for analgesia. Mean arterial pressure and pulse were documented before and throughout the operation in order to evaluate analgesic requirement. In case of elevation of systolic blood pressure or heart rate over 20% of the baseline values, analgesics were administered intraoperatively. In all cases, access to the uterine cavity was performed by vaginoscopic technique. The surgeons evaluated the ease of the procedure using a 5-point numerical scale.

Results

Median VAS scores at hydroscopic dilatator administration (0th), 1st, 2nd, 3rd, and 4th hours after insertion were 3.0±2.5, 1.4±1.5, 1.3±1.5, 0.9±1.0, 0.6±0.9, respectively; where pain score significantly decreased in time (Figure 1, $p<0.05$). There was no significant difference between mean arterial pressure and heart rate values between groups throughout the preoperative and intraoperative follow up ($p>0.05$). Before the operation, higher number of cases required analgesia in study group compared to controls (3 vs 0 patients; p=0.045 respectively). Intraoperative (6 vs 2 patients, p=0.68) and total analgesic consumption (6 vs 5 patients, p=0.71). were similar. Insertion of hydroscopic dilatator does not have any favorable effects in terms of access to uterine cavity through the cervix by vaginoscopic technique ($p>0.05$).

Conclusions

Cervical preparation with hydroscopic dilatators, increases preoperative VAS scores and need for preoperative analgesic administration. Also, indirect signs of pain, like mean arterial pressure or pulse rate changes indicate no intraoperative favorable effect for the patient. Moreover, for the operators, this intervention does not ease access to the uterine cavity for the defined technique.

ES24-0148
Posters

Intermediate Results of a Multi-center Randomized Controlled Trial of the Cardeatm Global Endometrial Ablation System Versus TCRE Combined with Roller-ball for the Treatment of AUB

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Background

The Objective of this study is to evaluate the safety and effectiveness of the Cardea^{TM} Global Endometrial Ablation System (a bipolar RF features 5.5 mm probe diameter) as compared to the control (TCRE - Transcervical Resection of the Endometrium) combined with rollerball ablation for the treatment of abnormal uterine bleeding.

Methods

The clinical trial is a multi-center, prospective, randomized clinical trial in OR setting performed at seven university teaching hospitals. Pre-menopausal women with abnormal uterine bleeding from benign causes who have completed child bearing are randomized in the test group and control group with 1:1 randomization. Patients in the test group are intervened with Cardea^{TM} bipolar RF globe endometrial ablation system; patients in the control group are treated with TCRE combined with rollerball ablation. Follow ups are assessed at < 24 hours post procedure, 2 week, 1 month, 3 months, 6 month (reported) and 1 year (not enough data available yet). The effectiveness of the device is evaluated by the reduction of bleeding (PBLAC Score), and percentage of patients with successful treatment (PBLAC Score equal or less than 75). A total of 161 patients were randomized into the test (82 patients) and control (79 patients) group, respectively.

Results

Data assessed at the follow ups includes the following: 1), reduction of bleeding and success rate; 2), patient satisfaction rate (QoL and Menstrual Impact Scales). The ages of the patients in the test and control groups are 44.51 +/- 5.16 and 45.01 +/- 4.59 (t=-0.65, p=0.5193, p>0.05), respectively. PBLAC scores of patients before treatment in the test and control groups are 859.31 +/- 770.20 (150-5060) and 881.03 +/- 765.65 (153-5735) (t=-0.18, p=0.8588, p>0.05), respectively; 6 months after treatment, the PBLAC scores for the test and the control groups are 11.14 +/- 18.92 (0-85) (n=29) and 39.89 +/- 112.75 (0-582) (n=27) (t=-1.35, p=0.1815, p>0.05), respectively. The success rate at 6 month for the test and the control groups are 96.55% and 92.59%, respectively. The time of procedures (device in and out time) in the test and control groups are 4.40 +/- 1.12 (minutes) and 19.63 +/- 10.90 (minutes) (t=-12.52, p<0.0001), respectively. The patient satisfaction rate and the amenorrhea rate of the two groups are also reported. A few other measures, such as energy delivery time, will also be reported.

Conclusions

Intermediate clinical trial results indicate the novel Cardea™ GEA system should be safe and effective for the treatment of AUB. The small profile of 5.5 mm in probe diameter is most likely demand less or in most cases no cervical dilation, and potentially much likely for local and topical anesthesia. This device has real potential to achieve true office based treatment of AUB.

ES24-0149
Posters

Transient Uterine Artery Occlusion as a Therapy for Bleeding After Myomectomy with Subsequent Spontaneous Pregnancy

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Background

Uterine leiomyoma are common benign tumors located primarily in the uterine cavity (submucosal fibroids), in the uterine wall (intramural fibroids) or in the serosal surface of the uterus (subserosal fibroids). The presence of submucous or large intramural fibroids, which distort the uterine cavity, can cause infertility. Myomectomy, with the aim to reinstall or preserve fertility, is currently performed via laparoscopy, laparotomy or mini-laparotomy. Temporary clipping of the uterine arteries during laparoscopic myomectomy has shown to significantly reduce blood loss. Although laparoscopic suturing requires more advanced operating skills, this approach shows a clear benefit over laparotomy. In women with one to three symptomatic and larger uterine myoma a mini-laparotomy provides an alternative to laparoscopic myomectomy.
In this case report we describe the temporary clipping of the uterine artery as a therapeutic approach for postoperative excessive bleeding.

Methods

We present the case of a 38 year old nullipara with the desire to have children. After surgical removal of a large intramural and two smaller subserosal myoma via laparotomy, there was a massive postoperative drop in hemoglobin requiring a re-laparotomy. Intraoperatively blood clots and diffuse bleeding of the uterotomia were encountered. Subsequent mass transfusion was needed to stabilize the patient. Due to continued bleeding despite surgical intervention the left uterine artery was occluded with a loop (silicone sling closed with a surgical clip). This procedure led to cessation of bleeding.
The transient occlusion of the uterine artery was removed on the next day via laparoscopy.

Results

After one day of postoperative intensive care, the patient was transferred to our clinic in stable general condition. The postoperative Doppler examination of the left uterine artery showed no abnormalities. Nine months after the myomectomy with transient clipping of the left uterine artery the patient conceived spontaneously and carried the pregnancy through to maturity of the infant. A primary cesarean section was performed in gestational week 38+1 and a healthy girl was delivered.

Conclusions

In the case presented here transient occlusion of the uterine artery showed a very good effectivity in stopping the massive bleeding. This outcome suggests that the use of transient ligation of the uterine artery might not only be useful as a preventive measure in myomectomy but might also serve as a therapeutic approach for treating postoperative uterine bleeding. The therapeutic use might also be beneficial for post-partum atony.

ES24-0151
Posters

3 Years Experience in the Use of Hysteroscopic Removal Morcellator Myosure for Endometrial Polyps and Submucosal Fibroids Type 0,i,ii.

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Background

To evaluate total operative and cutting time , fluid loss, complications and completion of excision of polyps and myomas (types O, I, II) with the Hologic Myosure Morcellator.

Methods

140 symptomatic women with endometrial polyps and myomas type 0,I,II were preoperatively evaluated with transvaginal ultrasound, sonohysterography and MRI (for types I and II submucus myomas. Three types of Myosure morcellators were used (XL,Stantard,Lite) for the hysteroscopic removal of the lesions.

Results

All polyps and myomas were completely removed with Myosure. The XL Myosure was superior for bigger myomas and its use was associated with decreased operative/cutting time and fluid loss. Operative time: for polyps (4,30-10.00min)Av. Time:7,00min,myomas (8,00-35,00min)Av time:17,16min. Cutting time: polyps (0,18-5,00min) Av time:1,56min,myomas (2,31-12min) Av time:7,73min.Fluid loss: polyps(0-600ml) Av. 290ml, myomas(400-2200ml)Av. 985ml. No complications were observed.

Conclusions

Myosure Morcellator proves to be totally efficient in removing completely even the most challenging endometrial polyps and myomas.

ES24-0155
Posters

Impact of Dienogest On Endometriomas Transvaginal Songraphic (TVS) Features and Symptoms

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Background

The purpose of this prospective study was to evaluate the changes of ultrasound features and volumes of ovarian endometriomas in patients treated with dienogest.

Methods

Twenty patients diagnosed with at least an ovarian endometriotic cyst with largest diameter between 2 and 5 cm diagnosed at TVS were included in this study. The TVS features and size of the endometriomas were assessed at the first scan. All the patients were treated with 2 mg dienogest/die continuously. After six months of treatment all the patients were reevaluated by TVS. Endometriomas diameters and echogenicity of the cystc fluid were recorded. Furthermore the symptoms related to the endometrioma were also assessed (VAS score) prior and during therapy.

Results

The symptoms associated with endometriosis were significantly reduced in the majority of patients. Mean diameter of the endometriomas showed no significant changes before and after six months of treatment (31.9±10.5 vs 23.4±8.7). The cystc fluid content showed changes in echogenicity, appearing more echogenic and with hyperechoic spot in 62% of the cases.

Conclusions

Although treatment with dienogest leads to a modifications in the ultrasound echogenicity of endometriomas, it does’nt show a significant change in the size of the endometriomas.

ES24-0161
Posters

Mullerian Ducts Anomalies and Endometriosis in a Patient with Chronic Pelvic Pain
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Background

Endometriosis can be found in 10% of the female in reproductive age while uterine malformation impact 4% of the female population. In some cases, both can be found in the same patient.

Methods

We report the case of a nineteen year-old patient referred to our gynaecological department for management of endometriosis and uterine malformation.
Her medical history is unremarkable. At anamnesis, she reported deep dyspareunia and chronic pelvic pain. Physical examination revealed a painful nodule in the Douglas pouch. After an ultrasound, deep endometriosis and a uterus malformation was suspected. Magnetic nuclear imaging confirmed the suspicion of endometriosis on both the torus uterinum and the anterior part of the recto-sigmoid with another lesion spotted on the middle third of the sigmoid. The uterine malformation was described as a uterus septus with a septum dividing the uterus and the cervix. A barium enema was performed to evaluate the bowel involvement. The nodule was localized about 30 cm away from the anus with moderate impact on the sigmoid lumen. A laparoscopy assisted with a CO2 laser was performed. The pelvic status was described as follows: a completed septate uterus, normal ovaries and tubes. Endometriosis was localized on the torus uterinum, the anterior wall of the rectosigmoid and the recto-vaginal septum. After a careful dissection, shaving of the rectovaginal lesion was performed. At the same time, we resected the septum between the upper third vagina and the cervix with electric coagulation and blunt section. The uterine septum will be taken care off in subsequent procedure. A general surgeon performed a partial recto-sigmoidectomy and recovery was unremarkable.

Results

Endometriosis is characterised by the presence of stromal and epithelial endometrial cells outside the uterine cavity. It is responsible for chronic pelvic pain, dysmenorrhea, dyspareunia and infertility and can be found in 10% of the female population of reproductive age. Its precise aetiology is unknown and several hypotheses have been suggested such as Sampson retrograde menstruation theory, metaplasia, embryonic residue and the stem cells theory. Medical treatment is palliative and surgery remains the only known curative treatment.
Mullerian duct anomalies impact 3 to 4 % of the population and are the result of a default in the embryogenesis of the female tract. They are categorized by the American Society of Reproductive Medicine by the major uterine anatomic defect and are usually asymptomatic and unrecognized at birth. Ovarian function is usually normal as ovarian development is not dependent on the Mullerian ducts. Symptoms, when present, can include dysmenorrhea and recurrent miscarriages. Surgical procedures, such as hysteroscopic resection, can be considered in some cases to improve fertility.

Conclusions

Endometriosis and mullerian ducts anomalies should not be forgotten in young patients with chronic pelvic pain. Both can be treated surgically.

ES24-0162
Posters

Simultaneous Administration of Acenocumarol and Ulipristal Acetate in Thrombophilic Fibroid Patients

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Background

Ulipristal acetate (UPA) is a Selective Progesterone Receptor Modulator (SPRM) approved for preoperative treatment of moderate to severe symptoms of uterine fibroids. In some patients in the perimenopausal period, treatment with UPA might avoid or facilitate surgery. Patients treated with anticoagulants due to genetic thrombophilia develop more frequently heavy menstrual bleeding. Simultaneously they are at high risk of post-operative bleeding and/or thromboembolism, and this risk is related to the complexity of the surgical procedure. Thus facilitating or avoiding surgery in these cases is of especial value and justify UPA administration.No publications have been found in medical literature on the effect of UPA on prothrombin time (INR) monitoring in acenocumarol (AC) users.

OBJECTIVES

To describe our clinical experience in women with thrombophilia and symptomatic uterine fibroids treated simultaneously with acenocoumarol and UPA.

Methods

We are presenting two cases.Case A: A 46 years-old woman with a factor V Leiden homozygous mutation, 20210A prothrombin gene heterozygous mutation, and XIIC46T factor heterozygous mutation, treated with acenocoumarol. Treatment with UPA was initiated in the setting of a profuse menstrual bleeding (PMB) and multiple fibroid uterus (28 cm uterine length).Case B: A menstruating 52 years-old woman with Type I protein S deficiency and factor V Leiden heterozygous mutation treated with AC. Treatment with UPA was initiated in the setting of chronic pelvic pain and multiple fibroid uterus.Both patients underwent 3-month cycles of UPA with washout periods of 2 months. Case A completed three cycles of therapy and case B completed 2 cycles. In case A, the patient had previously received treatment with gosereline acetate (aGnRH) for 6 months. Serial clinical, ultrasounds, and laboratory monitoring were performed, as well as INR self-monitoring.

Results

Recovery of normal hemoglobin levels (Hb) with aGnRH and subsequent maintenance after changing to UPA was observed in case A (Hb value at baseline: 105 g/L; Hb value post-aGnRH: 148 g/L; Hb after 2 UPA cycles: 148 g/L), while complete remission of pain was observed in case B. INR monitoring remained stable during the treatment with UPA, and no modifications in regular acenocoumarol dosing was required. INR values were maintained in a range of 2.04-4.36 in case A, and in a range of 2.40-4.60 in case B. Any of the patients experienced thromboembolic or abnormal bleeding episodes during therapy. After completing the cycles of UPA therapy, patients were asymptomatic and amenorrheic and, thus, it was decided not to submit these patients to any further medical or surgical treatment.

Conclusions

UPA appears to be a safe alternative in the management of symptomatic uterine fibroids in patients receiving concomitant therapy with acenocumarol and might be considered an option for long-term treatment of patients with high-risk for surgery.

ES24-0169
Posters

Office Hysteroscopy: A Report of 2402 Cases.

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Background

To report a large series of office hysteroscopies and assess the feasibility and acceptability of the procedure. Observational study including women who had had an office hysteroscopy for menorrhagia, metrorrhagia, postmenopausal bleeding, pain, amenorrhea, infertility evaluation, assessment of late and early pregnancy losses, and postoperative control between January 2010 and November 2013.

Methods

Observational study including women who had had an office hysteroscopy for menorrhagia, metrorrhagia, postmenopausal bleeding, pain, amenorrhea, infertility evaluation, assessment of late and early pregnancy losses, and postoperative control between January 2010 and November 2013.

Results

Two thousand four hundred two office hysteroscopies were carried out between January 2010 and November 2013. Of the patients included in the study, indication was menorrhagia in 32.2%, postoperative control in 20.8%, infertility evaluation in 15.8%, postmenopausal bleeding in 10.9%, post fetal loss of preterm delivery evaluation in 9.3% and other indications in 11.0%. Mean age was 39.4 years [39.0-39.8] and was significantly higher among patients for whom office hysteroscopy (47.3 versus 38.6 $p<0.01$) failed. The hysteroscopy failure rate was 9.5%. The failure rate was significantly higher in women with postmenopausal bleeding and significantly lower in cases of postoperative control. An abnormal uterine cavity was diagnosed in 56.0% of cases; those abnormalities included 28.7% myomas, 27.2% polyps, 17.7% synechiaes, 14.7% endometrial hypertrophies, 9.0% trophoblastic retentions and 7.7% uterine malformation. The complication rate of office hysteroscopy was 0.05%, with one case of hemorrhagic biopsy in a woman with postmenopausal bleeding. The mean pain score (from 0 to 10) during the examination was 3.57 [3.48-3.66] based on a simple verbal evaluation, and the mean pain score five minutes after the hysteroscopy was 0.89 [0.83-0.95].

Conclusions

Office hysteroscopy is a safe and feasible procedure with little pain. A failure rate of 9.5% is mainly reported for older women with postmenopausal bleeding.

ES24-0172
Posters

Predictors of Postoperative Hemoglobin Drop After Laparoscopic Intramural Myomectomy

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Background

Laparoscopic myomectomy is currently the gold standard for conservative treatment of uterine myomas. Intra-operative blood loss is an important issue in myomectomy. We studied factors influencing the postoperative hemoglobin (Hb) drop - as the most quantifiable parameter for perioperative blood loss - after laparoscopic removal of intramural myomas.

Methods

198 laparoscopic myomectomies were performed between 1.01.2010 and 3.05.2015 at our institution. In this retrospective study, we analyzed only intramural myomectomies (149/198; 75%). Seven (3.5%) cases were excluded because of conversion to laparotomy. In univariate and multivariate analyses, we investigated the impact of the following parameters on the postoperative Hb drop: patient's age, surgeon, duration of surgery, number of intramural myomas, diameter of the largest myoma, localisation of the largest myoma, cumulative weight of removed myomas, number of sutures, and one vs. two-layer closure.

Results

The median age of the patients was 37 (23-53) years. The mean weight of removed myomas was 95 g (median 53 g, range 4-656 g), the mean number of removed myomas was 1.4 (SD 0.84, range 1-5), and the mean diameter of the largest myoma was 5.7 cm (SD 2.2, range 1.5-12cm). The mean operation time was 81.5 min (SD 32.8, range 35-199 min). The median number of sutures was 3 (1-8). A one-layer interrupted suturing of the myometrium was performed in 124/142 (87.3%), and a two-layer closure (interrupted or continuous/interrupted sutures) in 18/142 (12.7%) surgeries. The mean postoperative Hb drop was 1.56 g/dl (SD 1.2, range 0-6 g/dl), and the mean estimated blood loss was 254 ml (SD 156, range 50-1700 ml). In the univariate analysis, the postoperative Hb drop correlated with the duration of surgery (p=0.000007), myoma weight (p=0.0005), diameter of the largest myoma (p=0.0006), and number of sutures (p=0.000007), but no with patient's age, number of intramural myomas or suture layers. Although the mean duration of surgery and the number of applied sutures differed between surgeons with the highest operative volume, the mean Hb drop did not. In the multivariate analysis, only the duration of surgery (beta=0.259, p=0.04) and patient's age (beta= -0.198, p=0.03) predicted the postoperative Hb drop.

Conclusions

In the present study, the postoperative Hb drop was most influenced by the duration of surgery, rather than by the weight, size or number of removed intramural myomas. If the inverse impact of patient's age on blood loss resulted from case selection (e.g. more extensive suturing in patients with pregnancy desire) or biological factors, requires further investigation.

ES24-0173
Posters

Outpatient Hysteroscopic Polypectomy

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Background

The aim of this study was to assess the feasibility of diagnostic and therapeutic outpatient hysteroscopy.

Methods

Retrospective study based on a 107 patients sample with endometrial polyp, within 225 diagnostic hysteroscopies done at Centro Hospitalar Baixo Vouga, from January 2014 to December 2014.

Results

The mean age (sd) was 56,17 (12.94) years and 7,48% of subjects were nuliparous. From 107 hysteroscopy identified endometrial polyps, 44 (41,12%) were in premenopausic and 63 (58,87%) in postmenopausal patients; 72 (67,29%) of them were unique, 35 (32,71%) < 1 cm in diameter, 71 (66,36%) with a diameter from 1 to 4 cm, and 1 (0,93%) > 4 cm in diameter. Diagnostic and therapeutic hysteroscopy, at the same time, was performed in 62 (57,94%) cases without major complications. Using the verbal analog scale of pain, the mean score of pain referred by patients during the procedure was 4,19 (2,11). Endometrial cancer was detected in 2 cases (1,87%), both in postmenopausal.

Conclusions

Hysteroscopic polypectomy performed in an outpatient setting under no anesthesia is a well-tolerated procedure and with less complications. As compared to conventional treatment, it displays the same efficacy, but the procedure is more cost-effective.

ES24-0177
Posters

Hysteroscopic Myometrial False Route - a False Case of Endometrial Cancer

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Background

Cervical canal stenosis may be a cause of hysteroscopy failure. Trying to overcome this stenosis may lead to false routes in the myometrium or a total uterine perforation. Post-menopausal women are at higher risk of hysteroscopy failure related to cervical canal stenosis due to lack of estrogen and atrophy. We report a case of hysteroscopy failure in a post-menopausal woman, leading to an imaging pitfall and a false suspicion of endometrial cancer.

Methods

A clinical case is described.

Results

A 65 year-old asymptomatic woman was submitted to a hysteroscopy after a sonographic suspicion of an endometrial polyp. The patient went for a pelvic MRI where a high signal intensity endometrial lesion extending to the fundal anterior wall of the myometrium was detected. A presumptive diagnosis of an advanced neoplastic endometrial lesion was placed and the patient was referred to our hospital. A gynecologic ultrasound was done and was normal. A second diagnostic hysteroscopy was performed with successful entrance in the uterine cavity. An atrophic endometrium was visualized. A second MRI was then performed showing total regression of the first MRI findings.

Conclusions

A false route in the myometrium is a hysteroscopic complication usually considered solved by interruption and postponement of the procedure. However, the possible inflammation caused by the myometrium disturbance may have consequences. In our case, it led to an imaging pitfall and therefore caution is recommended in interpreting radiological images after a false route.

ES24-0178
Posters

Effectiveness and Complications of Essure Hysteroscopic Sterilization

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Background

Essure is a permanent, non-surgical transcervical sterilization procedure for women. A confirmation test is performed 3 months after the procedure in order to evaluate micro-insert location or tubal occlusion. During this period, the tubal lumen is occluded by benign tissue ingrowth stimulated by the micro-insert. Since 2007, 292 procedures have been performed at the University Medical Centre Maribor. The objective of our study was to evaluate the effectiveness and complications of the procedure.

Methods

167 consecutive patients were included in a prospective study. All procedures were performed between August 2012 and February 2015 in an outpatient setting by the same experienced hysteroscopist. Transvaginal 2D ultrasound was performed 3 months after the procedure to asses the micro-insert position, which was defined as correct, indeterminate or incorrect. In cases with indeterminate or incorrect micro-insert position, tubal patency test was performed. Hysterosalpingo Foam Sonography (HyFoSy) was performed in the same setting in 14 cases with indeterminate or incorrect micro-insert position. Hysterosalpingography (HSG) was performed in 2 cases with indeterminate micro-insert position.

Results

167 patients with 332 Fallopian tubes were included. In 7 patients sterilization wasn't attempted due to pain or technical difficulties at hysteroscopy. Essure micro-inserts were successfully placed in 318 Fallopian tubes in 160 patients (318/332, 95,8%). Transvaginal ultrasound demonstrated a correct placement of 300 micro-inserts (300/318, 94,3%). Tubal occlusion was confirmed in 14 of 15 cases with indeterminate micro-insert position and in 1 case with incorrect micro-insert position. No complications were reported during HyFoSy or HSG. In a patient with patent Fallopian tube laparoscopy was performed due to suspicion of micro-insert migration; migration was not confirmed and laparoscopic salpingectomy was performed. Besides pain and technical difficulties at hysteroscopy no other complications of the procedure were reported. Almost all patients (159/160, 99,4%) could rely on Essure for pregnancy prevention.

Conclusions

Essure hysteroscopic sterilization is a method of permanent female contraception that is very effective and has a low rate of complications. In cases of indeterminate or incorrect position of micro-inserts on transvaginal ultrasound, HyFoSy could be an alternative to HSG.

ES24-0180
Posters

"Laparoscopic Treatment of Severe Bladder Endometriosis Facilitated by Simultaneous Cystoscopic Visualisation"

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Background

We present a safe technique of perfoming a laparoscopic partial cystectomy in order to excise deep infiltrating endometriotic lesions of the posterior bladder wall with helps of simultaneous cystoscopic visualisation.

Endometriosis, defined as the presence of endometrial-like tissue outside the uterus, affects up to 15% of women of reproductive age and causes a considerable economic burden for society. Endometriosis expanding and invading the urinary tract is fortunately a rare occurrence found in ~1–2% of all endometriotic patients. Bladder endometriosis may present with infertility and/or variable painful symptoms including suprapubic pain, dysuria, haematuria and repeated urinary infection. Women affected suffer a severe impact on their quality of life.

The laparoscopic approach of surgical treatment remains a challenging procedure and should only be performed be experienced laparoscopic surgeons.

Methods

We report on a patient with deep infiltrating endometriosis of the posterior bladder wall with reccurent heavy pain at menstruation and within the framework of 5 similar cases all treated from March 2012 to April 2015.

In all of these cases we performed a laparoscopic partial cystectomy in order to remove the endometriotic nodule reaching out to the mucosa of the bladder wall. Size of the nodule varied between 2 and 5cm, and patients age was between 30 and 43. In two cases we combined the procedure with a laparoscopic hysterectomy and in 3 out of 5 cases we performed a resection of the Douglas Peritoneum and removed parts of endometriotic uterosacral ligaments.

Operation time varied between 90 and 155 min.

The bladder wall resection was facilitated by a simultaneous cystoscopy. The use of a Picture in Picture System allowed us to have a split monitor of both the cystoscopic and the laparoscopic view. Using diaphanoscopy by bringing the camera into the bladder, we opened the bladder wall exactly in the boundaries of the endometriotic mucosal area. Another advantage of simultaneous cystoscopy is knowing the exact position of the vesicoureteric junction and keeping a safe distance when defining the limits of bladder wall dissection. The bladder defect was closed in two layers with vicryl sutures in all cases.

Results

There has been no intraoperative complications. Patients indicated the changes in their pain symptoms from satisfactory to excellent. No dysuria has been reported postoperative.

Conclusions

A simultaneous laparascopic and cystoscopic view during bladder endometriosis surgery allows a safe and complete resection of the nodule improving postoperative outcome and quality of life.

ES24-0181
Posters

Should All Suitable Women Be Offered Laparoscopic Hysterectomy over Abdominal Hysterectomy?

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Background

The Cochrane review 'Surgical approach to hysterectomy for benign gynaecological diseases' recommends vaginal hysterectomy (VH) over abdominal hysterectomy (AH). It acknowledges that laparoscopic hysterectomy (LH) may avoid the need for AH but stops short of recommending LH due to higher rates of urinary tract injuries and longer operating times. More recently, the Royal College of Obstetricians and Gynaecologists (United Kingdom) has recommended LH over AH as part of Enhanced Recovery (ER).Our aim was to retrospectively compare all types of hysterectomy for benign disease performed in Queen Alexandra Hospital (QAH), Portsmouth, UK over 12 months and appraise the hypothesis that with increasing use of minimal access surgery, LH is now superior to AH.

Methods

Retrospective analysis of all hysterectomies performed between 01/11/2013 – 31/10/2014. Exclusion criteria: malignancy, large fibroid uterus (≥12/40 size), large ovarian mass requiring abdominal approach, emergency procedures.

Results

553 hysterectomies were identified with 292 excluded and 40 case-notes inaccessible. Included were: AH 77/259(29.7%), LH 65/259(25.1%), VH 112/259(43.2%) and laparoscopic-assisted-vaginal-hysterectomy (LAVH) 5/259(1.9%). Patients undergoing VH tended to be older however the BMI distribution was similar between groups.
The average total theatre time (minutes) for each route was 151 AH, 148 LH, 101 VH and 139 LAVH. The overall risk of complication was 44/224(19.6%) with data unavailable in 35 cases. Complications were higher in AH (23/67, 34%) than LH (9/61, 14.8%) and VH (12/92, 13%), (0% LAVH). Average blood loss was 200ml less for LH, VH and LAVH than AH. Risk of haemorrhage >500mls was highest in AH (12/67, 17.9%) compared with LH (1/61, 1.64%) and VH (2/112, 2.2%). Transfusion rates were 3/67(4.5%) AH and 3/92(3.3%) VH compared with none in LH. Readmission rates were 8.2% LH, 4.5% AH, 3.3% VH and 0% LAVH. LH had lower rates of: return to theatre (3.3 % LH, 4.5% AH), haematoma (3.3% LH, 4.5% AH), and ileus (0% LH, 3% AH); with similar rates of urinary tract infection (1.5% AH, 1.64% LH), wound complications (infection, dehiscence, hernia) (3.3% LH, 3% AH) and sepsis (4.5% AH, 4.9% LH). Risk of organ injury was highest for LH (1.64% urinary tract, against 0% in AH, VH and LAVH). Average length of stay (LoS) in days was less for LH (1.6), VH (1.8) and LAVH (1.0) than AH (2.86).

Conclusions

The main advantages of LH against AH are a halved overall complication rate and a reduced length of stay. The operating time for AH and LH is equivalent. Whilst our findings support the view that VH is safest and quickest route of hysterectomy, it will not be suitable for all. In our unit with almost 30% AH rate, LH should now be considered as first line for all patients who are unsuitable for VH.

ES24-0183
Posters

Vaginal Mccalls Culdoplasty Versus Laparoscopic Uterosacral Plication to Prevent Subsequent Vaginal Vault Prolapse

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Background

Vaginal vault prolapse affects up to one third of women following hysterectomy performed for pelvic organ prolapse. The background of our study was to compare McCall's culdoplasty (when performed along side vaginal hysterectomy) with laparoscopic uterosacral plication (when performed along side total laparoscopic hysterectomy) for prevention of vaginal vault prolapse.

Methods

We performed a retrospective comparison study between two district general hospitals in Northern Ireland. Patients were selected who had undergone either 'vaginal hysterectomy with McCalls culdoplasty' or 'total laparoscopic hysterectomy with uterosacral plication' addressing middle compartment pelvic organ prolapse. Two consultant gynaecologists between 2008 and 2014 performed operations.
Both groups had their notes reviewed and were followed up on a regional electronic care record to see if they re-attended anywhere for subsequent pelvic organ prolapse repairs.

Results

A total of 134 patients were identified including 64 who had undergone total laparoscopic hysterectomy and uterosacral plication and 70 who had vaginal hysterectomy and McCalls culdoplasty. There was no significant difference between age, BMI or parity. Mean follow up was 37 months (range 5-84). Seven (10.9%) patients in the uterosacral plication group subsequently presented with vaginal vault prolapse five wishing this surgically addressed. Recurrence time was on average at 14 months following the initial operation. There were no patients in the McCalls group representing with vaginal vault prolapse (P=0.0045). Inpatient stay in the uterosacral plication group was significantly shorter mean 2.4 compared to 3.6 for McCall group (P-Value is < 0.00001). There were significantly fewer perioperative complications in the uterosacral plication group (P=0.040).

Conclusions

Both uterosacral plication and McCalls culdoplasty result in fewer subsequent vault prolapses than the predicated 30% incidence when hysterectomy is performed alone. The McCalls group had significantly fewer vault prolapses than the uterosacral plication group. The uterosacaral plication group is associated with statistically significant fewer perioperative complications and sorter inpatient stay.

ES24-0184
Posters

Essure?

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Background

Five years after introduction of Essure ® into our unit our objective is to review the reason for patients requiring or requesting further treatment following placement of Essure ®.

Methods

A retrospective review of 216 patients over a 60-month period in a district general hospital by two minimal access surgeons.
All patients who had undergone Essure ® hysteroscopic sterilisation were included.
Cases were identified from operative log complemented by chart review. Any patients who were not discharged after their 3 month imaging to confirm device placement were reviewed.

Results

Six out of 216 (2.8%) patients who had undergone Essure ® hysteroscopic sterilization requested or required further management. All six patients had the devices correctly placed. Two patients had post procedure pain. Both patients subsequently had bilateral salpingectomy and removal of Essure ® device. Endosalpingiosis was diagnosed on histology of the fallopian tubes of one patient. The second patient had histology revealing no allergic reaction and fibrosis of the fallopian tubes. Two patients underwent subsequent laparoscopic sterilisation with filshie clips. One patient for migration of one of the Essure devices the second for failure of the hysterosalpingogram to confirm tubal blockage. Two patients presented following media coverage of Erin Brokovich's concerns over Essure ®. Both patients had their Essure ® strerilisation performed several years earlier. One patient is awaiting hysterectomy and the other patient has been deemed not suitable for further surgical management due to raised BMI.

Conclusions

Essure ® provides a safe alternative to laparoscopy in the majority of cases. A minority of patients will require further treatment for pain and failure to confirm sterilisation. The importance of preoperative counseling has been highlighted in our review by the two patients who have changed their mind following events in the media.

ES24-0185
Posters

Office Hysteroscopic Laser Enucleation of Submucous Myomas over 30mm Without Mass Extraction: A Case Series Study

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Background

Background and Objectives. A new two-step hysteroscopic myomectomy carried out in the office setting and without anesthesia was feasible for the excision of submucous myomas. The objective of this study was to assess whether removal of submucous myomas from the uterine cavity after hysteroscopic laser enucleation is necessary.

Methods

Methods. Between June 2009 and April 2013, all outpatients with symptomatic myomatosis (bleeding, pelvic pain, and infertility) assessed ultrasonographically were eligible to participate in a prospective study. All patients underwent office hysteroscopic enucleation of submucous myomas with section of the pedicle for G0 tumors, resection of the base for G1 tumors, and enucleation by the two-step technique for G2 tumors and G1 tumors when necessary. Diode laser was used during the procedure. Enucleated myomas were left in the uterine cavity. Neither anesthesia nor antibiotic prophylaxis was used.

Results

Results. Ten women (mean age 45.8 years) were included. Regardless of hysteroscopic localization and grading (G0-G2), all myomas were enucleated. Bleeding was the most frequent symptom. The mean (standard deviation, SD) diameter of the myoma as measured by the ultrasound scan was 33.4 (8.5) mm. After a mean follow-up of 68.2 (16.5) days, none of the patients showed a residual myoma inside the uterine cavity.

Conclusions

Conclusions: The present results indicate that leaving laser-enucleated submucous myoma in the uterine cavity is a feasible and safe therapeutic option.

ES24-0190
Posters

NOTES Hysterectomy: A New Approach to Hysterectomy Via Natural Orifice Transluminal Endoscopic Surgery

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Background

Aiming to reduce surgical morbidity, we introduced pure transvaginal NOTES (vNOTES) hysterectomy in our practice in January 2015 as an alternative for a Total Laparoscopic Hysterectomy (TLH). In this study we present our initial experience with the first 50 hysterectomies by pure vNOTES.

Methods

50 Patients were operated by pure vNOTES hysterectomy for benign indications. Two different, new surgical techniques were used, namely Vaginally Assisted NOTES Hysterectomy (VANH) and Total Vaginal NOTES Hysterectomy (TVNH). VANH is a total hysterectomy where first the caudal part of the uterus is dissected vaginally under direct vision and afterwards the rest of the hysterectomy is performed via vNOTES using an endoscopic camera and endoscopic instruments. TVNH is a total hysterectomy where the entire uterus is dissected via vNOTES using an endoscopic camera and endoscopic instruments. All procedures were performed by pure vNOTES; no abdominal incisions were made. Patient and perioperative data were collected. The technique is demonstrated in a short video.

Results

VANH and TVNH were successfully performed in 50 patients. No major complications occurred and no conversions to standard laparoscopy or laparotomy were necessary.

Conclusions

A hysterectomy can be performed by vNOTES as an alternative for a TLH. Incorporating the advantages of endoscopic surgery it broadens the indications for vaginal hysterectomy and helps overcome its limitations. Simultaneously, the NOTES approach avoids abdominal wall wounds and trocar related complications. VANH and TVNH are feasible, even when performed with reusable, conventional laparoscopic instruments. This minimally invasive and frugally innovative technique also enables surgeons to perform hysterectomies by vNOTES in low resource settings.

ES24-0192
Posters

Plasma Energy and Rectal Shaving in Deep Endometriosis Infiltrating the Rectum: a New Energy Enabling a More Conservative Rectal Surgery

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Background

Objective: To report an original technique of rectal shaving using plasma energy in rectal endometriosis.

Methods

Methods: The procedure is based on specific properties of the plasma energy: the absence of lateral and deep thermal spread, the precise superficial ablation, and the kinetic energy enhancing the dissection of deep spaces. The nodule is detached from the rectum and residual rectal infiltration is progressively ablated by slowly penetrating the surface of shaved area with the plasma beam. Patients managed from December 2012 to December 2014 using this procedure were prospectively included in a database (NCT02294825).

Results

Results: There were 45 patients managed laparoscopically by rectal shaving using plasma energy. The diameter of the rectal area involved by the nodule was <=1cm in 8 cases (18%), 1-3 cm in 31 cases (69%) and >=3cm in 6 cases (13%). The height of the nodule from the anus varied between 5-10cm in 27 cases (60%) and 10-15 cm in 18 cases (40%). No intra-operative events were recorded. One patient (2%) with multiple previous surgical procedures presented with rectal fistulae the day 21. Two patients (4%) have had troubles of bladder voiding for respectively 10 and 12 weeks. The number of patients with Clavien I, II, IIIa, IIIb and IVa complications was respectively 2 (4%), 8 (18%), 1 (2%), 3 (7%) and 1 (2%) (one patient could present several complications). Conversely, 42 patients (93%) were free of severe complications.

Conclusions

Conclusion: Plasma energy allows conservative surgery in rectal endometriosis with overall favorable postoperative outcomes.

ES24-0203
Posters

Incidental Finding of Abdominal Sarcoidosis During a Laparoscopic Mesh Excision

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Background

To show that abdominal sarcoidosis can mimick carcinomatosis and that laparoscopy is a good method for the evaluation and treatment of patients with previous surgeries and multiple adhesions and the dissection of infected meshes.

Methods

Retrospective revision of the patient's clinical profile.

Results

The authors describe a clinical case of abdominal sarcoidosis and difficult mesh excision by laparoscopy in a patient that developed a pelvic abscess after a laparoscopic sacrocolpopexy. A 58-year old patient (para 2, gravida 2) presented with vaginal discharge. On physical examination, the patient had a brown vaginal discharge coming through the cervix. The patient had no other signs and symptoms. She had medical history of pulmonary sarcoidosis. Twenty four years before, she had an abdominal Burch colposuspention and promontofixation for pelvic organ prolapse correction. Six years before, she had a vaginal right sacrospinous fixation and correction of cystocele and rectocele for pelvic organ prolapse recurrence. Three years before, she had a laparoscopic sacrocolopexy, sub-total hysterectomy with bilateral adnexectomy, again for prolapse recurrence. Due to the persistence of the vaginal discharge, a magnetic resonance imaging was performed. It showed an image suggestive of pelvic abscess, just above the mesh, in the vesico-vaginal pouch and a fistula between the abscess and the remaining cervix. Multiple granulomatous nodules studding the peritoneum, rectum completely adherent to the right and left pelvic wall and to the vaginal apex were found during diagnostic laparoscopy. Adhesiolysis of the multiple adhesions, drainage of a 7cm abscess, mesh excision and vaginal suture were performed. The mesh was slowly dissected, leaving the abscess capsule intact, and sectioned 3cm from the promontory with allowed pulling the mesh and opening the abscess afterwards. The extemporaneous pathological examination of the nodules showed a sarcoidosis-like pattern. Definitive pathological examination confirmed sarcoidosis diagnosis. Postoperative recovery was uneventful. No minor or major complications occurred. The patient was discharged one day after surgery.

Conclusions

Sarcoidosis is a multisystemic inflammatory disease of unknown etiology. Abdominal sarcoidosis lesions may mimick neoplastic or infectious diseases. Sarcoidosis must be considered in the differential diagnosis of tumor-like lesions of the peritoneal cavity. Laparoscopy is a good method for the evaluation and treatment of patients with previous surgeries and multiple adhesions. It is effective for the removal of infected meshes used in the treatment of pelvic organ prolapse.

ES24-0211
Posters

Surgical Approach for the Benign Ovarian Cysts at York Teaching Hospital NHS Foundation Trust

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Background

Laparoscopic management of ovarian cysts is well established offering distinct advantages of quick postoperative recovery and reduced cost. Operative laparoscopy should be our primary surgical approach to treat majority of benign ovarian cysts.

Objective: To assess the surgical approach for the management of benign ovarian cyst at York Teaching Hospital Hospital.

Methods

Retrospective Cohort Study:

All consecutive women who were operated for ovarian cyst not suspected to be malignant from Sept 2013 to Sept 2014. Total 61 women were identified from the theatre computer record and pathology department. The data was collected from the hospital computer.

Results

Laparoscopic approach was used in 43 (71%) and 18 (29%) had laparotomy. The mean operation time in the laparoscopy group was 100 minutes (range 40 to 237min) compared to 96 minutes (range 51 to 270 minutes) in the laparotomy group. Mean cyst diameter was 10cm (2 to 31cm) with one 26cm cyst managed laparoscopically. 31 (51%) were managed by cystectomy and 30 (49%) had oophorectomy preferably in women over 45years. In the laparoscopy group, 43 women were discharged on the same day or following day compared to average 3.5 days in laparotomy group. Two women required second operation by oncologist to complete the operation as the histology suggested borderline and adenocarcinoma. There were no major complications in both groups.

Conclusions

Laparoscopy should replace laparotomy in the management of benign ovarian cyst. Further audit is needed in the department to assess the factors affecting the surgical approach. The authors have no conflict of interest.

ES24-0217
Posters

Laparoscopic Surgery for Deep Infiltrating Endometriosis in Romanian Environment

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Background

We intend to present our first 18 months experience in laparoscopic surgery for deep infiltrating endometriosis .We are the first Romanian endo surgery center,located in Timisoara,western Romania .

Methods

We evaluated 99 cases of deep infiltrating endometriosis of which we operated 59 cases.The rest of 40 cases were 13 asymptomatic patients ,25 patients were addressed to ART department prior surgery and 2 cases addressed to medicine treatment as they refused surgery. The mean age was 32yrs (22-39 yrs).Mean BMI was 22.5 (19.5-28.5).

As for the staging, 20 cases were mild (stage 2 R-AFS), 29 cases were classified as being moderate (stage 3 R-AFS) and 12 cases were severe (stage 4 R-AFS).

We performed total excision of deep infiltrating recto-vaginal septum, retro cervical or utero-sacral endometriotic nodules, we performed the rectal shaving for superficial bowel infiltrating endometriosis, 12 bowel resections for deep penetration of the bowell wall and one ureter resection(but we had 15 ureter dissections), we performed nerve sparing surgery.

Results

We had 2 bowel injuries that were laparoscopically sutured. We also had a severe complication that led to colostomy(rectovaginal fistula –a stage 4 with low colorectal resection and posterior colpectomy).

We evaluated our patients at 1,3,6,12 months postoperative . The first month evaluation showed a significant lowering of pain scores in all the patients(N= -4 (-2 to -6) P=47).

As for fertility ,from 57 patients operated , 37 had the wish to conceive immediately .CPR was 38 %(14 pregnancies) of which 21 % were spontaneous pregnancies (8 pregnancies)and 17 % were obtained after IVF (6 pregnancies).

We experienced two recurrences (3.5 %)

Conclusions

In our opinion we should treat surgically only the patients that accuse severe pelvic pain and/or impaired function of vital organs . Our results plead for an improvement of patient quality of life and pregnancy rates through a multidisciplinary approach (surgery and IVF) tailored on patient symptoms ,needs and wishes .

ES24-0221
Posters

Pregnancy Rates After Hysteroscopic Metroplasty - 1.5 Years of Experience.
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Background

Congenital malformations of the female genital tract are defined as deviations from normal anatomy resulting from embryological maldevelopment of the Müllerian or paramesonephric ducts. They represent a rather common benign condition with a prevalence of 4–7% in population. Nowadays These conditions are classified in a new system developed by ESHRE/ESGE in 2013. The negative Influence on the reproductive function of women is scientifically proven and various methods are provided to liquidate these congenital anomalies/defects, but it’s not clear how effective these methods enhance fecundity in infertile women with mullerian duct anomalies. We tried to analise the results of hysteroscopic metroplasty in our patients during 1.5 year.

Methods

We studied 382 women 20 to 39 years of age who underwent Hysteroscopy between May 2013 – December 2014 due to infertility, that ranged between 1-10 years and determined the percentage of existence of mullerian duct anomalies among these women. Our analyse was focused on Class U1-Dysmorphic Uterus according to the ESHRE/ESGE consensus on classification of female genital tract congenital anomalies. We perform hysteroscopic excision of defect (septa) in cases of septate uterus. In patients with dysmorphic uterus hysteroscopic fundal and lateral hysteroplasty was done. We observed the percentage of pregnancies during 5 - 24 months after hysteroscopic metroplasty among that women where no other proven reason of infertility except for MDA were found, the fallopian tubes and endometrium were functional and adequate to menstrual phase.

Results

During 1.5 year there were 382 hysteroscopies due to infertility. In 39 cases (10,2%) we found Dysmorphic Uterus. In all cases was performed hysteroscopical excision of the defect with monopolar electroloop. There were 9 cases accompanied with tubal occlusion and 2 cases with male factor infertility in partner. All of them were excluded from the observation group. Among the 28 women with Dysmorphic uterus, after hysteroscopic metroplasty, 8 (28.6%) became pregnant in natural cycles without ART during follow up period.

Conclusions

According to this retrospective analysis presense of Dysmorphic Uterus in infertile women reaches 10,2% Pregnancy rate after Hysteroscopic metroplasty during 5 - 24 month follow-up was 28.6% in infertile patients with Dysmorphic Uterus. Recevied results shows that the hysteroscopic metroplasty has a positive influence on the reproductive function of women with Dismorphic Uterus.

ES24-0227
Posters

Laparoscopic Surgery in Rare Uterine Congenital Anomalies

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Background

Objective: To report three different cases of patients with rare congenital uterine anomalies, who underwent laparoscopic surgery.

Methods

Three patients with the diagnosis of congenital uterine anomaly submitted to laparoscopic surgery in our Department, between June and September of 2014, were included. Data were obtained by clinical records review. We describe each case, surgical procedures, histological findings and follow-up.

Results

Case 1 – 12 year old female, menarche one year before, secondary sexual characters normally developed. She was previously diagnosed with Herlin-Werner-Wunderliche syndrome and presented intense pelvic pain. Diagnostic hysteroscopy revealed the presence of only one cervix in continuity with left hemi-uterus. This was followed by laparoscopic right hemi-hysterectomy and salpingectomy. No right hemi-vagina was identified. Histological exam showed an abnormal endometrium with only a basal layer and a normal fallopian tube.
Case 2 – 15 year old female with primary amenorrhea, normal development of secondary sexual characters and complaints of cyclical pelvic pain. She was diagnosed with agenesis of the upper 2/3 of the vagina and unilateral hematosalpinx. Vaginoscopy, laparoscopic bilateral salpingectomy, and rudimentary uterus hysterectomy were performed, after intraoperative finding of uterine hypoplasia and right fallopian tube triple torsion. Histological exam showed two rudimentary uterus, one with non-identifiable uterine cavity.
Case 3 – 21 year old female, with primary amenorrhea, normal development of secondary sexual characters and normal karyotype, diagnosed with Mayer-Rokitansky-Küster-Hauser syndrome. She was submitted to laparoscopic hysterectomy, bilateral salpingectomy and small bowel segmental resection followed by vaginal reconstruction by Wilflingseder technique. Histological exam confirmed a rudimentary uterus. No complications were registered during surgery or follow-up period in all cases.

Conclusions

Our positive results in these three cases showed that laparoscopic surgery is a safe and feasible method to treat and improve patient’s quality of life. The laparoscopic treatment of uterine congenital anomalies requires extensive experience in this area and may involve a multidisciplinary approach.

ES24-0230
Posters

Electrosurgery Knowledge, Do We Know Enough?

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Background

Effective application of electrosurgical techniques requires knowledge of energy sources to produce the desired tissue effect and ensure patient safety. Our objective was to assess the basic knowledge of electrosurgery concepts among Gynaecologists and other surgical specialities in order to ascertain the need for formal training on this subject.

Methods

We performed an observational study by sending an online questionnaire to Gynaecologists and Surgeons from various hospitals in the South Wales region. The questionnaire consisted of four demographic questions and six questions assessing knowledge of electrosurgery with a single true answer from five options. The questions were derived from a training module developed by the Medicines and Healthcare Products Regulatory Agency (MHRA) in the UK and covered various concepts of electrosurgery.

Results

Fifty three individuals completed the survey. Of the respondents 75.5% were Obstetricians and Gynaecologists, 17% were General Surgeons, 3.7 % were Orthopaedic surgeons and 3.7% were Ear Nose and Throat Surgeons. The grades included 35.8% consultants, 5.7% associate specialists, 17% speciality trainees in year 1 to 2 (senior house officers), 30.2% speciality trainees in year 3 to 5 (junior registrars), and 11.3% speciality trainees in year 6 to 7 (senior registrars). Of the respondents 20.7% operated laparoscopically every week, 24.5% every 2 weeks, 28.3% every month, 5.7% every 2 months and 20.8% rarely. The median test score was 33% among all participants. Consultants and senior registrars scored the highest (median score, 50%) followed by associate specialists, junior registrars and senior house officers (median score in all 3 groups, 33%).

Conclusions

Although electrosurgery has been widely used for many years it remains poorly understood by many gynaecologists and other surgeons. All grades show a general deficiency in electrosurgery knowledge and understanding. We recommend that a structured electrosurgery curriculum demonstrating clinically useful concepts be an essential part of training and ongoing professional development to ensure safe surgical practice. Electrosurgery training may be delivered in various ways including lectures, workshops or online modules with self assessments.

ES24-0233
Posters

The Introduction of an Outpatient Hysteroscopic Polyp Morcellation Clinic at a District General Hospital

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Background

Endometrial polyps are a common hysteroscopic finding when investigating women with abnormal uterine bleeding. They have been found in up to 40% of symptomatic pre- menopausal women and are associated with menorrhagia, metrorrhagia, intermenstrual bleeding and subfertility. They are also associated with post- menopausal bleeding and found in women with malignant tissue changes.(1)

In symptomatic women who undergo polypectomy, it is reported that there is 75%-100% improvement. For women who are asymptomatic ,a polypectomy is recommended for those with risk factors for endometrial cancer.(2)

The introduction of hysteroscopic polyp morcellation has allowed for a fast, safe and convenient procedure to remove polyps within an outpatient setting. The use of small scopes, minimal dilatation and little or no local anaesthetic has impoved the experience for patients and medical staff.(1)
At Arrowe Park Hospital we have introduced polyp morcellation using Hologic Myosure tissue removal system and Aquilex fluid control system

Methods

Aim

To review the implementation and outcomes of a Myosure hysteroscopic polypectomy clinic within our outpatient department performed by consultant and nurse practitioner

Method

A retrospective data collection of patients who attended the clinic between September 2014 and May 2015

Results

28 patients were referred to the clinic.
4 patients had not undergone previous hysteroscopy and were found not to have a polyp,
1 patient refused treatment and was listed for general anaesthetic.
22 patients had successful polypectomy and 1 patient had partial polypectomy due to loss of vision.
All patients tolerated procedure well and left clinic within 10 minutes of finishing. There were no complications during or following polypectomy.
1 histology was reported as atypical hyperplasia, 21 were benign polyps,1 was benign fibroid

Conclusions

Myosure polypectomy is proving to be a fast, efficient, safe and well tolerated procedure that is easily performed within an outpatient setting allowing fast recovery and minimal disruption for patients.

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ES24-0240
Posters

Initial Evaluation of Minitouch Endometrial Ablation in Our Outpatient Hysteroscopy Clinic

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Background

To study the patient acceptability, complications and long term outcome of the Minitouch endometrial ablation in an outpatient hysteroscopy clinic setting.

Methods

Design: Prospective data collection of 10 cases of Minitouch endometrial ablation procedure performed in the Ambulatory clinic in 2014.
Patients: 10 patients with menorrhagia who had failed medical management.
Intervention: Patients were given Paracetamol and Ibuprofen pre-medication 30 minutes prior to the procedure. Cervical dilatation was not required. Hysteroscopy was performed prior to the ablation procedure.
Outcome: Successful completion of procedure, duration of treatment, RT readings of Minitouch device, need for post procedure analgesia, complications. T
Telephone Follow up for post procedure bleeding pattern, patient satisfaction and need for further surgery.
FU period was between 6 months to 12 months.

Results

Minitouch was successfully completed in all the patients. The mean Visual analogue scale score was 5.9 (Std dev. 1.66)
None of the patients required post-procedure analgesia and no patients had any recorded complications.
One patient was lost to follow up. We exclude 2 patients who had uterine pathology resulting in failed procedure (poor patient selection). One patient had an 8 cm fibroid uterus and underwent hysterectomy and the other had adenomyosis.
The amenorrhoea rate was 57% (4/7) which is lower than reported before.
On further analysis of the patients who had unsuccessful treatment; all patients had a short procedure time of ≤ 30 seconds and hight RT reading.

Conclusions

Minitouch was well tolerated and successfully completed in all the patients in our Outpatient hysteroscopy clinic. It is a safe procedure.
The amenorrhoea rate in our study was lower than reported previously. 3 patients underwent further surgery (repeat endometrial ablation or hysterectomy)
All the patients who had unsuccessful treatment had a short procedure duration (≤ 30 seconds) and high RT reading.
Could this reflect insufficient energy being delivered to the endometrium resulting in Sub-optimal treatment results?
This result will help us to counsel patients post procedure about the likelihood of success of the procedure i.e. Patients with short procedure duration (and/or high RT reading) may not achieve the much desired hypo or amenorrhoea.

ES24-0247
Posters

The Present Situation and Prospects of Hysteroscopic Complications in Diagnosis and Therapy

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Background

Hysteroscopic diagnosis and treatment for intrauterine lesions is minimally invasive and effective. But serious complications such as uterine perforation, bleeding, fluid overload, hyponatremia, air embolism and rupture of pregnant uterus after hysteroscopic metroplasty occurs frequently. In order to improve the hysteroscopy operation safety hysteroscopic complications occurred in recent years was reviewed in this paper to investigate the cause and prevention method of complications for hysteroscopic surgeries.

Methods

Based on the CNKI and Wangfang Database 1978 ~ 2014, the incidence of complication in hysteroscopic surgery. was 0.64% (235/36832) which is similar to that reported by Kayatas. The most common complication is uterine perforation (0.27%, 98/36832). Other complications encountered during hysteroscopic surgery were bleeding (0.12%, 44/36832), fluid overload (0.09%, 33/36832), infection (0.05%, 19/36832), IUA (0.05%, 17/36832), VAE (0.02%, 8/36832) and others (0.02%, 6/36832).

Results

The most important factors contributing to complications is operator, anesthesiologist, and operating room staff. Surgical equipments is important too. The complications can be divided into immediate and delayed. Immediate complications are related to uterine perforation and uterine rupture, fluid overload, hemorrhage and venous air embolism. Delayed complications include infection, special complications in pregnancy which occurred following hysteroscopic surgery, uterine rupture during pregnancy or childbirth after septoplasty, adhesiolysis or myomectomy, intrauterine adhesion and symptomatic hematometra. For each type of complications, the etiology, predisposing and risk factors, recognition, prevention, and management of associated complications are described and discussed.

Conclusions

Hysteroscopic complications are rare, but they may be serious. Knowledge of these complications, as well as the instruments used and techniques employed, in conjunction with the experience acquired, are essential to reduce the incidence and severity of these complications.

ES24-0252
Posters

Laparoscopic Hysterectomy Among Obese Patients

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Background

In Russia, 24% of the population is obese moreover this amount continues to increase. Approximately 3% of adults suffer from morbid obesity (BMI ≥40kg/m^2). Obesity is a challenging surgical problem nowadays. The aim of the present study was to define place of laparoscopic hysterectomy (LH) in treatment of benign and malignant diseases of the genitals among morbidly obese patients.

Methods

In our clinic during 2013 and 2014, 65 patients underwent LH for a benign and malignant pathology among morbidly obese patients. Two (3,1%) of these patients had robotic-assisted laparoscopic hysterectomy, 2 (3,1%) had “open” laparoscopic hysterectomy, 1 (1,5%) had laparoscopy-assisted vaginal hysterectomy. The mean age was 57±8,4. The mean BMI 48,37 [range 35,64 - 64,98] kg/m^2, 24 patients had BMI exceeding 50 kg/m^2 and 6 had BMI more than 60 kg/m^2. Indications for surgery were: endometrial cancer (38,5%), myoma (35,4%), endometrial hyperplastic processes (12,3%), ovarian mass (30,8%), combination of uterine pathology and prolapse (4,6%) and Ð¸ stress urinary incontinence (1,5%). Following comorbid conditions were noted: hypertension (92,3%), diabetes 2 type (30,8%), pulmonary pathology (10,8%), thrombophlebitis (3,1%) etc. We combine hysterectomy with salpingo-oophorectomy in 80%, tubectomy in 13,5%, minilaparotomy in 6,2%, SCP in 1,5%, pelvic lymphadenectomy in 1,5%, TVT-O and posterior mesh-colporrhaphy in 1,5% cases.

Results

Operative time was 94,3±44,76 min, anesthesia time was 120±49,51 min. The blood loss was 128,55±60,78 ml, hospital stay was 4±0,94 day. The histological diagnosis was endometrial carcinoma for 32 (49,2%) women and 7 (21,9%) of these patients diagnosis was made after LH. Most frequent stages of endometrial carcinoma were: FIGO IÐ• (50%) and FIGO IÐ’ (34,4%). Less often FIGO IÐ¡ and FIGO IIÐ• reported in 6,3% cases, FIGO IIÐ’ –3,1% cases. According to histological studies in morbid obese woman most often occur high-grade (37,5%), moderate (18,75%) and non-differentiated (31,25%) adenocarcinoma. The overall rate of complications was 9,2% (n=6) including: 1 case of bowel injury without reoperation; 1 case of bilateral thermal ureteral injury, which required of nephrostomy; 2 cases of hydronephrosis, which required of ureteral stenting; 1 case of hematoma of vaginal cuff without reoperation; 1 case of surgical sight infection. All these cases resolved without any consequences.

Conclusions

Due to high prevalence of different types of gynecologic, including oncologic pathology among obese patients hysterectomy might be vital procedure. Extreme obesity was considered as a contraindication for laparoscopy in gynecology especially LH. However, according to our data, laparoscopic approach for hysterectomy is preferable due to low complication rate in experienced hands and in well equipped OR.

ES24-0255
Posters

Endometrial Biopsies Results After Hysteroscopy Assessment

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Background

The introduction of diagnostic hysteroscopy allows the direct assessment of the endometrial cavity. Pre and post-menopausal bleeding, infertility and abnormal ultrasound findings are common indications to perform this exam. The direct visualization of the uterine cavity, allows identification, guided biopsies and treatment of endometrial pathologies.

The objective of this study was evaluate the indications of hysteroscopies and the histological results after guided biopsies, in the Gynecological department of Hospital Divino Espírito Santo – Ponta Delgada, during 2013 and 2014.

Methods

It was performed a research based on reports and hystopathological results of all women proposed to hysteroscopy in our service during 2013 and 2014.

Results

During these two years, 233 hysteroscopies were performed. In 187 cases the cause for the exam was pre or post-menopausal abnormal uterine bleeding, in 35 cases endometrial thickness, in 9 cases primary infertility and in 2 cases the presence of ovular membranes. Intracavitary images were found during in 155 exams. Polyps were present in 124 cases; Leiomyomas in 11 cases; Endometrial hypertrophy in 13 cases and ovular membranes in 2 cases. Nine exams were performed to study primary infertility. The findings were 2 uterine septa, 1 left hipoplastic cavity, 1 polyp and 1 myoma. The other 4 exams were normal During the procedures 201 biopsies were performed and revealed 8 cases of endometrial cancer, 4 cases of complex atypical hyperplasia, 8 cases of simple hyperplasia, 1 case of a submucosal angiomyoma, 2 inconclusive cases and 178 cases without abnormalities.

Conclusions

Although this study was based in a small sample of cases, it was possible to identify an abnormal intra-uterine formation in 155 exams, corresponding to 66,5% of the cases. Even though the majority of biopsies did not reveal any abnormality, it was possible to diagnose eight cases of endometrial carcinoma and in twelve cases lesions that could evolve to malignancy. In the infertility group, 5 presented an abnormal intrauterine finding, providing some information about the possible cause of infertility.

ES24-0260
Posters

Creation of Neovagina by Davydov's Laparoscopic Modified Technique in Patient with Vaginal Agenesis

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Background

The laparoscopic Davydov's technique is one of methods to create neovagina for women with vaginal agenesis. It's rare operation and success rate depends on operation technique and surgeons experience.

Methods

The Davydov's modified laparoscopic operation was performed to 20 years old patient with history of no menstruation and no vagina and no uterus. Patient at this age wanted to begin sexual intercourse. Laparoscopy was performed to evaluate abdominal and pelvic cavity. Vaginally dissection of tissues between urethra/urine bladder and rectum was performed up to peritoneum. Peritoneum dissected, fixed and sutured to vulva mucosa. Apex of new vagina was sutured laparoscopically by 2 semicircular sutures involving urine bladder, lateral pelvic peritoneum and rectum.

Results

Duration of operation 120 min. Patient discharged from the hospital 2 days after the surgery. Patient began sexual intercourse 2 month after surgery with slight discomfort in first few days. On control visit 6 months after surgery patient was satisfied and mentioned normal sexual intercourse with great pleasure for her and her partner.

Conclusions

Laparoscopic Davydov's technique for creation of vagina is a good and safe option for patients with vaginal agenesis. It has many advantages such as short operating time, short hospitalstay, only small external scars and normal sexuality and sexual intercouse in postoperative period. But excellent laparoscopical and general surgery experience is required.

ES24-0261
Posters

Treatment Failure After Repeated High-intensity Focused Ultrasound (HIFU) for Management of Huge Uterine Leiomyoma

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Background

High-intensity focused ultrasound (HIFU) has been regarded as a non-surgical, minimally invasive therapeutic option for patients who wish to preserve uterus. Although many studies have shown that HIFU therapy is a safe and effective treatment of uterine fibroid, not all uterine fibroids are suitable for HIFU treatment. We experienced a huge myoma which was unresponsive to the repeated HIFU treatment.

Methods

We reported a case of treatment failure after repeated HIFU treatment for management huge uterine myoma. Twenty seven years old nulliparous unmarried woman was diagnosed with huge uterine myoma. She had 15cm of myoma in her uterus and she received 12 times of repeated HIFU treatment for management of myoma in the other hospital. After first and second times of HIFU procedure, the size of the myoma was reduced. But 7 months after, the size of the myoma was increased from 15cm to 17cm. She received additional 10 times of HIFU treatement. For two years, she received total 12 times of HIFU treatment. Despite of repeated treatment, huge myoma has been growing larger than even before treatment. Eventually, she had abdominal myomectomy 4 months after last HIFU treatment in our hospital.

Results

During the surgery, we observed the uterus was enlarged with the 20 cm myoma on fundus and the myoma was severely necrotized. Also, the right ovary and fallopian tube were distorted and dilated due to the severely enlarged uterus. Because the myoma was severely degenerated and the margin between myoma and normal tissue was unclear, endometrium was exposed during surgery. We removed the myoma and repaired the exposed endometrium and myometrium with layer-by-layer technique. We also repaired the distorted right side adnexa by suture. The final pathologic diagnosis revealed it a leiomyoma.

Conclusions

HIFU treatment was provided as an effective therapeutic option for women with symptomatic uterine fibroids who desire organ-preserving treatment. However, this case shows that HIFU treatment can make serious complication especially in women who have desire for future fertility and therefore an appropriate selection of patients is an important factor in successful outcome of HIFU treatment.

ES24-0264
Posters

Atypical Localisation of Volumionos Uterine Myoma During Total Laparoscopic Hysterectomy

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Background

Voluminous uterine fibroids represent a challenge requiring beside technical abilities from a surgeon with experience in laparoscopy some technical and tactical surgical details for restricting intraoperatory bleeding, decreasing the duration of intervention and facilitate the evacuation of the entire fibroid. This desiderates are acquired by associating the abdominal step with the enucleating, morcellating and the vaginal step to minimaise the uterine tumor before performing the hysterectomy.

Methods

Situations:

-cases with multiple intramural,subserous nodules with intraligamentary, isthmic and fundic localisation, and variable dimensions until 10 cm in which we used the technique of multiple myomectomy then extracting each nodule by morcelating and then performing TLH.

-cases with access to coagulation and sectionating the uterine artery and then performing an intermediary step by STLH.

-cases where we sectionate the uterine artery bilaterally and because we couldn't perform the intermediate step we used the technique of morcellating 'in situ'.

Results

TLH for voluminous uterine fibroids weighting 500 to 800 grams (our experience is above 100 cases of TLH) raised problems of surgical technique and we had to find individual intraoperatory solutions . The surgical techniques described in materials and method allowed us to reduce the operatory time also facilitating the extraction.

Conclusions

Reducing the volume of the tumor by laparoscopic technique directly raises the importance of this type of surgery eliminating the difficulties of performing the vaginal step. Reducing the volume of the tumor allows us to perform total laparoscopic hysterectomy in better anatomical conditions avoiding complications related to nearby lesions or hemorrhagic complications.

ES24-0265
Posters

Standartization of Surgical Procedure in Laparoscopic Treatment of Deep Infiltrating Endometriosis

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Background

Deep infiltrating endometriosis (DIE) in most cases needs surgical treatment due to chronic pelvic pain, pelvic organ dysfunction and infertility. The goal of surgery is excision of all visible disease to minimize risk of recurrence and repeated surgeries or improve fertility. However there is no standardized technique of surgical procedure in DIE.

Methods

During last 5 year (2010-2014) we performed 195 laparoscopic operations in patients with DIE with complains of resistant to medical treatment chronic pelvic pain and/or infertility. Our standardized procedure in laparoscopic surgical treatment of DIE include several steps: 1) laparoscopic revision of pelvic and abdominal cavity; 2) adhesiolysis and "second-look" laparoscopic revision, verification of DIE, its localization and stage, ureters visualization; 3) surgical treatment of endometriomas (using technique of enucleation and partially ablation); 4) ovarian fixation; 5) lateral peritoneal resection (total or partial) with ureters visualization; 6) central peritoneal dissection (Duglas dissection with or without vaginal opening and resection of vaginal fornix wall); 7) shaving or resection of endometriosis nodules on rectosigmoid colon, bladder, ureters, appendectomy if needed; 8) evacuation of resected tissues, inspection of validity of pelvic organs (bladder, rectum, colon); 9) haemostasis and 10) drainage.

Results

In our clinic we observed all favorable results of the operations. Rectal shaving was performed in 35 cases, bowel resection in 17, bladder resection – in 10, ureterolysis – in 6, appendectomy- in 11 cases, posterior vaginal fornix resection – in 40 cases. In 15 patients who did not received or withdrawn postoperative treatment or didn't conceive at 12-18 months of observation we detected recurrence of DIE symptoms.

Conclusions

Standardization should be used as a road map by the surgeons during laparoscopic surgical procedure in deep infiltrating endometriosis may improve short and long-term results of treatment.

ES24-0267
Posters

Searching for the Best Animal Model for Training On Laparoscopic Colposacropexy
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Background

In the last years, the implementation of laparoscopic colposacropexy has shown an exponential increase. This surgery has been associated with a long learning curve. The objective of this study is to select the best experimental model in order to reduce the learning curve. Box-trainers are considered to lead an improvement in suturing skills, however, dissection is more difficult to model.

Methods

A female sheep and swine were subjected to a laparoscopic colposacropexy. The surgery was performed by following these steps: Dissection of the promontory, the paracolic gutter and vagina, suturing of the mesh to the vault, stapling to the promontory, and peritonealisation.

Results

Among the former steps, the ones related to the dissection and suturing were the most similar to the real technique. On the other hand, due to the extraabdominal situation of the bladdler and the uterus, the total peritonealisation of the mesh was not possible (the mesh surrounding at the vault of the uterus was not able to be covered with peritoneum). In particular, the pelvic anatomy of the sheep was more similar to the woman than that of the swine.

Conclusions

The sheep would serve as an experimental model for colposacropexy training. However, further studies are needed in order to prove face validity and demonstrate a positive impact on the learning curve.

ES24-0269
Posters

Laparoscopic Hysterectomy Without the Use of Special Uterus Manipulator

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Background

There are many different techniques of laparoscopic hysterectomy procedure. We try to identify the principal steps of laparoscopic hysterectomy without the use of special uterus manipulator.

Methods

We analyzed 465 cases of laparoscopic hysterectomy performed due to benign uterus condition during a 3 year period (2013-2015) and tried to standardize the laparoscopic hysterectomy procedure technique without the use of special uterus manipulator.

Results

Laparoscopic hysterectomy technique was divided into several steps: 1) insertion of a “modified” uterus manipulator –single-toothed tenaculum with an uterus probe; 2) insertion of laparoscopic ports and adhesiolysis to restore normal anatomy; 3) identification of the ureter, resection of adnexal structures towards the round ligament; 4) transection of the round ligament and vesico-uterine ligament; 5) preparation and transection of the uterine vessels; 6) before lateralization of the uterine vessel we take out an uterus probe with single-toothed tenaculum and insert Maier dressing forceps with cotton-gauze tampon (3 cm in diameter) covered with sterile latex glove in a vaginal cuff for the facilitation of circular colpotomy; 7) circular colpotomy; 8) intravaginal morcellation of uterus; 9) laparoscopic vaginal cuff closure using absorbable interrupted or non-interrupted sutures; 10) careful inspection of pelvic and abdominal cavity, control of hemostasis and drainage.
Average operation time was (42,2+5,4) min, in cases of enlarged uterus it was (65,3+9,6) min, in giant fibroids – (168,5+12,3) min. There were no serious complications in our group. Vaginal stump infection was detected in 3 cases.

Conclusions

Laparoscopic hysterectomy without the use of special uterus manipulator is safe, economically viable and easy-to-learn with favorable learning curve.

ES24-0272
Posters

Acute Hydronephrosis Following an Uncomplicated Vaginal Hysterectomy

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Background

To improve awareness of the ease with which acute hydronephrosis can occur following an uncomplicated vaginal hysterectomy. We also discuss why such injury occurs despite its rarity and how could these be prevented and managed.

Methods

A 37-year-old woman underwent vaginal hysterectomy for significant menorrhagia. Although, there was no descent of the uterus the procedure was uncomplicated. For supporting the vault, mass closure technique was used for the vaginal angles. This involved insertion of a polysorb 1 suture incorporating the uterosacral-cardinal ligament complex, parietal peritoneum and the vaginal angle on either side. Her immediate post-operative observations were normal. About 24 hours following the surgery, she complained of significant loin pain. Blood urea and serum creatinine were noted to be have increased compared to the preoperative sample. A CT scan showed left hydronephrosis.

Results

The attending urologist advised a percutaneous nephrostomy. While awaiting transfer for the nephrostomy, the patient was offered removal of the left vaginal angle mass closure stitch. This was performed in the ward setting. There was immediate resolution of the left flank and pelvic pain following the stitch removal. The renal function parameters quickly returned to normal. Follow-up ultrasound and CT scans showed complete resolution of left hydronephrosis.

Conclusions

Ureter is injured less often during vaginal than abdominal hysterectomies. As our case demonstrates, it can happen even after a straight forward vaginal hysterectomy. Simple deligation of the offending suture in the ward setting resolved the ureteric obstruction in this patient. However, there was a potential for delayed diagnosis and significant interventions. Understandably, close postoperative vigilance and prompt liaison with radiology and urology colleagues are essential for diagnosis and management of ureteric injury after a vaginal hysterectomy.

ES24-0275
Posters

Incidence and Characteristics of Endometrial Carcinoma in Polyps Resected by Hysteroscopy

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Background

Endometrial polyps are benign lesions with a high prevalence. Their power of malignization is low. The aim of this study is to analyse the factors that modify the polyp´s characteristics and determine the need of resection

Methods

This is a descriptive retrospective study of 3034 hysteroscopic polypectomies performed in Hospital Universitario Ramón y Cajal (Madrid, Spain) from January 2004 to May 2015. The database of performed hysteroscopies and histological records of our hospital were searched for cases in which polyps resected by hysteroscopy corresponded to endometrial cancer. 9 cases of endometrial carcinoma were diagnosed by histological examination of the polyps that were resected. Demographic data, clinical presentation, histological examination, adjuvant treatment, grade and extension of the tumor were analysed, as well as the findings of the staging surgeries that were later performed.

Results

The mean age of the patients diagnosed of endometrial cancer after hysteroscopy polypectomy was 67.4 years-old. All of these patients were postmenopausal.Most of them (66%) had risk factors for endometrial cancer, including obesity (33%), Diabetes Mellitus (10%) and previous breast cancer (22%), one of which was being treated with Tamoxifen.

The most common clinical presentation at diagnosis was postmenopausal bleeding (55%). However, 30% of the patients were asymptomatic. In these cases, diagnosis of polyp was suspected by sonography.

Histological examination of all the resected polyps was performed. Endometrioid carcinoma was found in 6 out of the 9 cases of cancer. The other 3 cases were adenocarcinomas. In 66% carcinoma foci infiltrated a benign polyp, whereas in the other 33% it had a polypoid appearance.

The finding of endometrial cancer was followed by staging surgery in all cases: 8 underwent hysterectomy and bilateral oophorectomy and in one case bilateral pelvic lymphadenectomy also took place.

Results of histological examination of the surgical specimens were consistent with the polyps. Final staging was: 1 in situ carcinoma (only present on the polyp), 7 stage IA and one stage IB. Tumour grade was 55% G1, 22% G2 and 10% G3. All lymph nodes were negative to metastasis in the case that underwent lymphadenectomy.

Only one patient received radiotherapy and brachitherapy as adjuvant treatment, due to the low stage of most tumours.

Conclusions

Although it is uncommon, endometrial polyps in postmenopausal women can be associated to endometrial cancer, especially if they present postmenopausal bleeding. This is why we strongly recommend hysteroscopic polypectomy of all polyps after menopause. If the tumor is limited to the polyp, it is usually low grade.

ES24-0279
Posters

Interstitial Pregnancy Treated by Conservative Laparoscopic Cornual Incision - A Case Presentation

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Background

Interstitial (cornual) pregnancy is a rare form of ectopic gestation. Although located in a dangerou s area, that could lead to hemorrhagic complications, more and more article present a conservativ e laparoscopic management of such cases. We also used this approach in a recent case.

Methods

Case presentation

Results

It was a G3P1 36 year old women that presented with a gestational sack corresponding to 7 week s. Because of the lateral location, the patient was closely monitored by clinical, ultrasound and lab oratory hCG dynamics. The evolution was: 1090 at 5weeks, 3649 at 6 weeks, and 4700 at 7 wee ks. The ultrasound scan suggested the gestation was ectopic, so we proceeded to a laparoscopy. The image found was suggestive for an interstitial pregnancy located in the left cornual area. We decided to have a conservative approach, performing cornuostomy, evacuating the pregnancy by aspiration and forceps. The line of incision was about 1 cm, and hemostasis was good, so one s uture was considered enough. The left tube was also obliterated respecting the patient desire to p revent further events of ectopic pregnancy. The evolution was favorable, with hCG decreasing fro m the next day of surgery to 587, one week to 100 and two weeks to <10. The 3 months follow-up was also good.

Conclusions

We conclude that this case advocates for laparoscopic management of interstitial gestation, and t hat the limited cornuostomy is enough to evacuate the pregnancy. Simple follow up consists of cli nical ultrasound and hCG, and future pregnancy should be cautiously recommended and followed , as risk for complications and recurrence still persists.

ES24-0280
Posters

Office Hysteroscopic Polypectomy with Diode Laser

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Background

Currently, endometrial polyps may be successfully treated in an outpatient setting with 5 Fr mechanical and bipolar instruments. Our aim is to evaluate the benefits of minimally invasive techniques in hysteroscopy, focusing on the use of the diode laser in the treatment of endometrial polyps in an outpatient setting.

Methods

In the last 18 months we performed 648 Office hysteroscopic polypectomies. In 126 cases we used a diode laser fiber (Biolitec, Ceralas BFF603; 15-40 Watts) with a 4 mm operative hysteroscope (Karl Storz) to remove endometrial polyps with diameter ≤ 2.5 cm at ultrasound scan.

Results

We successfully performed 120 out of 126 laser polypectomies (95.2%) in a single step (See & Treat). The histological examination showed correlation with the hysteroscopic diagnosis in all cases. Concerning patient compliance, 6 women of childbearing age requested the suspension of the procedure and therefore they were referred to a second hysteroscopy (second step) with analgesia. One hundred and eleven (92.5%) accepted the procedure without discomfort, 6 (5%) reported discomfort and only 3 women (2.5%) reported moderate pain (VAS). The follow-up ultrasound at 6 months showed no case of persistence of the pathology.

Conclusions

The combination of a 4 mm continuous flow operative hysteroscope and a diode laser fiber enables the endoscopic gynaecologist to perform Office hysteroscopy for the treatment of endometrial polyps with significant results in terms of persistence of the pathology and patient compliance.

ES24-0289
Posters

Out Patient Hysteroscopy-a Safe, Comparable and Cost Effective Alternative to Conventional Hysteroscopy

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Background

Hysteroscopy and endometrial sampling remain the gold standard in assessing endometrial pathology. With Outpatient hysteroscopy, the need for general anaesthetic is obviated without compromising outcomes.

Methods

Aim:

To assess the efficacy, safety and patient satisfaction rates following outpatient hysteroscopy .

Materials and methods:

Retrospective review of data collected on all patients who attended the outpatient hysteroscopy clinic between 5th November 2013 and 15th December 2014. A separate survey was conducted for assessing patients' satisfaction with their clinic experience**Results**

Results:
One hundred and Twenty four patients attended the clinic during this period. The commonest indication for referral to the clinic was menorrhagia(37%), followed by postmenopausal bleeding(32%) and abnormal uterine bleeding in the form of metrorrhagia(15%). Other indications included glandular smears, secondary amenorrhoea, incidental finding of increased endometrial thickness in postmenopausal women and retrieval of missing IUCD. Hysteroscopy revealed normal endometrial cavity in over eighty percent (37/46) of cases of menorrhagia. Thirty percent of the women referred with postmenopausal bleeding had normal endometrial cavity, while in eighteen percent the cavity was atrophic and a polyp was seen in another eighteen percent. Outpatient hysteroscopy was unsuccessful in twenty three percent (9/40) of women presenting with postmenopausal bleeding. There were no reported post operative complications. High rates (92%) of patient satisfaction were reported with the overall experience in the unit with respect to pain scores, professionalism and involvement in decision making.

Conclusions

Conclusion:
Outpatient hysteroscopy is an efficient and satisfying method of assessing uterine cavity in patients presenting with symptoms pertaining to endometrial pathology.

ES24-0291
Posters

Three Dimensional Transvaginal Ultrasonography and Hysterosalpingo-sonography with Gel Foam (HyFoSy): One Single Examination in the Assessment of Tubal Sterilization Occlusion by Essure Device.

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Background

The objective of our study was to evaluate the position of tubal sterilization devices (Essure) and tubal occlusion by 3D hysterosalpingo-contrast -sonography (3D-HyCoSy) using a new dedicated contrast-enhanced gel foam (3D-HyFoSy).

Methods

This prospective study includes 50 women undergone hysteroscopic Essure microinsert placement between June 2012 and January 2014, for a total of 95 tubes. Insertion of the microinserts was performed in outpatient setting following standard procedure recommendations at University "Federico II" of Naples, and Palagy hospital of Florence (Italy).

All patients underwent, 3D-TVS and 3D-HyFoSy at least 3 months after the procedure. The device position was evaluated on 3D-TVS coronal section and classified as perfect, proximal and very distal according the classification proposed by Legendre (2010). 3D and 2D real-time HyFoSy was performed to confirm tubal occlusion by the absence of contrast agent in the tubes and around the ovaries. After sonographic evaluation all women underwent hysterosalpingography (HSG) to assess as standard metholofology the success of sterilization. We also evaluated side effects and pain during and after the two different procedures, using a visual analog scale (VAS) score.

Results

On coronal view, the position of 10 (10.5%) devices was satisfactory, 61 (64.2%) devices had a suboptimal position and in 24 (25.2%) cases the position was inadequate. During the 3D and 2D real time HyFoSy we observed tubal occlusion in 89 cases. In the 6 cases in which the passage of the contrast was observed, 5 devices had adequate positon and 1 had inadequate position. The devices' position and tubal occlusion were confirmed by HSG with 100% concordance. Comparing the pain during and after the two procedures, we observed a pain score less for the 3D HyFoSy.

Conclusions

3D-TVS-HyFoSy provides the visualization of Essure microinserts' tubal position and at the same time an accurate assessment of tubal occlusion. It should be considered a reliable tool for evaluating tubal obliteration status after hysteroscopic sterilization with Essure device.

ES24-0299
Posters

Ovarian Cysts in Premenopausal Women What is the Appropriate Surgical Modality of Treatment?

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Background

Joint RCOG/BSGE guidance on Management premenopausal women with suspected ovarian masses was published in November 2011. We aimed to assess our surgical management of premenopausal women with Ovarian cysts and how this compared with the current guidance.

Methods

This is a retrospective study. We identified all women who underwent surgery for ovarian cysts from our surgical database during the period of August 2014 to July 2014. A total of 100 women case notes were reviewed.

Results

Cysts were managed by laparoscopic surgery in 86% and laparotomy in 14% (4 at caesarean section). Method of surgery was ovarian cystectomy in 52% (45 laparoscopic and 7 open), aspiration in 10%, oophorectomy in 36% and oophorectomy with hysterectomy in 2%.With laparoscopic approach the cyst was removed intact 63%, spill of cystic contents were noted in 37%. However in all the cases the specimen was removed in a contained bag. During open surgery this was 57% and 43% respectively. 50% of the women had midline and lower transverse laparotomies each. There were no significant complications noted. In this cohort 4% women had borderline malignant tumours.
Among the 10 open surgery for ovarian cyst/mass 7 benign and 3 were malignant tumours. Histology in the laparotomy group showed 3 dermoid, 2 endometrioma, 1 benign serous cystadenoma, a mucinous cystadenoma, a cyst of indeterminate origin, a paratubal cyst, a corpus leuteal cyst, salivary gland adenocarcinoma from a mermaid, serious cystadenocarcinoma and a borderline mucinous cyst. The size of the cyst at the time of booking for surgery was <5cm in 36%, 5-7cm in 29% and >7cm in 31%. In 4% this was not available. In our study group only 8 women (13%) <40 years had all the recommended tumour markers 32 women (52%) had atleast 1 other tumour marker

Conclusions

This study has identified a need for a standardised surgical approach in managing premenopausal women with ovarian cysts within our unit. Following this we have produced a departmental guidance that recommends, in asymptomatic women with cyst <5cm conservative management should be offered. In women <40years with suspected ovarian cysts CA125, LDH, AFP & BHCG tumour markers should be performed.
In our study 70% of the cysts in the laparotomy group for suspected malignant mass were benign, considering this laparoscopy should be the primary surgical approach in premenopausal women with ovarian cysts. Aspiration of ovarian cysts should be avoided as this increases recurrence.

ES24-0300
Posters

Ovarian Cysts in Premenopausal Women What is the Appropriate Surgical Modality of Treatment?

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Background

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ES24-0302
Posters

Ovarian Xanthogranuloma

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Background

To present a case of a posteoperative diagnosis of ovarian xanthogranuloma in a woman underwent a laparoscopic oophorectomy.

Methods

Xanthogranulomatous inflammation is a rare form of chronic inflammation that is destructive to the involved organs. It affects chiefly the kidney and gallbladder. Until now, only a few cases of xanthogranulomatous inflammation involving the ovary have been reported. Most of those presented with tubo-ovarian masses, with or without some menstrual complaints and with a history of pelvic inflammatory disease in the past. Malignancy was a frequent considered differential diagnosis.

The exact etiology of the disease is unknown but various factors, such as chronic bacterial infection, inadequate antibiotic therapy, endometriosis and intrauterine contraceptive device are believed to be implicated.

Results

A 38-year-old woman, married and mother of one child, presented in our consultation with a right anexial mass. She had an intrauterine device (IUD) and an otherwise unremarkable medical background. Her physical examination revealed tenderness in right vaginal fornix. Ultrasound revealed a large complex mass measuring 68x82x59mm on the right ovary, multilocular with homogeneous hypoechoic fluid and some papillary projections. Left ovary was normal. Serum CA-125 level was 6,3U/ml. A laparoscopic right oophorectomy was planned. Intraâ€‘operatively, there was a mass on the right side of the uterine fundus with about 8 cm, adherent to bowel. Yellowish purulent material and necrotic tissue was seen due to cyst rupture during surgical manipulation. The lesion was released all around and the ovarian mass was sent for frozen section, which was inconclusive. A diagnosis of xanthogranulomatous oophoritis was made on permanent sections, which showed chronic inflammation involving adjacent ovary and fallopian tube.

Conclusions

Xanthogranulomatous inflammation of ovary is an unusual lesion that forms mass-like lesions in the pelvic cavity invading the surrounding tissues, which may mimic malignancy clinically and by imaging.

ES24-0306
Posters

Robotic-assisted Approach for Vaginal Vault Prolapse: Initial Single-Center Results.

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Background

Background: Pelvic organ prolapse(POP) represents a major health problem in gynaecological practice. Vaginal vault prolapse is current indication for a sacrocolpopexy, also in the case of POP recurrence after vaginal POP procedures. Robotic systems have been introduced in attempt to reduce the difficulty of performing complex laparoscopic procedures, as in the cases of pelvic floor defects. Specifically, 3D imaging systems, magnification up to 12- fold and the specific technology, which provides 7 degrees of freedom of…, increasing the dexterity of the surgeon's forearm and wrist at the operative site; all these advantages of the Da Vinci platform (Intuitive Surgical, CA, USA) make robotic technology suitable for pelvic floor reconstructive surgery.

Methods

Methods: All patients affected by post-hysterectomy vaginal vault prolapse (III-IV stage POP-Q) and undergone to robotic sacrocolpopexy at our Urogynecological Unit from September 2014 till November 2014, were enrolled. We recorded the demographic (age, BMI, parity, smoking) and clinical data of all the patients. All of them were preoperative evaluated through physical examination, including POP –Q evaluation, stress test and urodynamic investigation. In all cases, we performed robotic assisted sacrocolpopexy using a sigle polypropylene mesh.We used a standard port settings: a 12 mm para-umbilical camera port, three 8 mm port for the robotic arms and one 12 mm port for the assistant, 1 cm inferior to subcostal margin on the left mid clavicular line. Our primary outcome was rate of surgical success and the resolution of vaginal bulge symptoms. Secondary outcomes were: operative time, operative blood loss, intra- and post-operative complications, hospital stay. Finally, we evaluated the post-operative pain using the Visual Analogue Scale - VAS (1th post-operative day and at the discharge).

Results

Results: Fifteen women were included in the study. All surgeries were completed robotically with no conversion to laparotomy. Four patients presented a concomitant diagnosis of stress urinary incontinence (SUI) and were submitted to sling procedure, during the same surgical session. The average operative time for the robotic-assisted sacrocolpopexy was 182 ±36 min, including robot docking time. The mean blood loss was calculated as 40.3 ±21 ml. There were no intraoperative complications and only one case of post-operative complication. The mean length of hospitalization was 3.8 ± 0.7 days. There were no recurrences during the follow-up period (6 months). Post-operative pain had a significant improvement comparing 1th post-operative day and the time of discharge.

Conclusions

Conclusion: The use of the robotic system during vaginal vault prolapse repair is feasible, safe and associated to satisfying short term results.

ES24-0307
Posters

Laparoscopic Excision and Morcellation of a Failed Rudimentary Uterine Horn Pregnancy at 9 Weeks Gestation and Review of Literature

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Background

Rudimentary horn pregnancies are rare with an estimated incidence of 1 in 76 000 to 150 000 pregnancies. 70-80% of cases will result in uterine rupture and present as acute collapse and intra-abdominal haemorrhage. Diagnosis is often difficult unless a high index of suspicion is already held. Management traditionally involves laparotomy and excision of uterine horn with the pregnancy in situ. However there have been increasing number of cases managed laparoscopically and this appears to be safe.

Methods

We present a case of a failed rudimentary horn pregnancy at 9 weeks gestation managed by interval laparoscopic excision and morcellation. Initial ultrasound images and magnetic resonance imaging demonstrating the uterine anomaly and failed pregnancy is shown. Edited video of laparoscopic excision of rudimentary horn, superior and inferior hypogastric block and morcellation of uterine horn demonstrates the technique of the procedure. Literature search is conducted with EMBASE, PUBMED and Cochrane Databases for published case series and report on rudimentary horn pregnancies.

Results

A 34 year old Para 1 lady initially presented with a delayed miscarriage diagnosed on ultrasound scan outside of NHS services. Images on repeat ultrasound scan were suggestive of an ectopic pregnancy but at laparoscopy a rudimentary uterine horn pregnancy was diagnosed. A single dose of methotrexate was given in this case to reduce vascularity of the rudimentary horn before an interval procedure four weeks later to complete excision. Magnetic Resonance Imaging(MRI) was used to assess pelvic anatomy and demonstrated communication between both uterine horns. At surgery an advanced energy source was used for tissue dissection and intra-corporeal suture ligation was used to achieve haemostasis. The excised rudimentary horn was removed by morcellation and the fetus was retrieved separately intact. Our literature search found 209 cases of rudimentary horn pregnancies with 13 cases successfully managed laparoscopically.

Conclusions

This case demonstrates how laparoscopic management of rudimentary horn pregnancies can be achieved using techniques in common with those used in laparoscopic hysterectomy, including identification of the ureter, use of bipolar diathermy, suturing and intra-corporeal knot tying . Our literature search found that although most rudimentary horn pregnancies have been managed by laparotomy in the past there is an increasing number of cases managed laparoscopically and this appears to be as safe and effective .

http://player.vimeo.com/video/129938076?autoplay=1

ES24-0310
Posters

Diagnosis of Endometriosis by the Detection of Nerve Fibers in the Functional Layer of the Endometrium.

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Background

Objectives. Our aim was to explore the clinical applicability of the semi-invasive diagnosis method of minimal and mild endometriosis based in the detection of nerve fibers in the functional layer of the eutopic endometrium.

Methods

Endometrial tissue was collected from 12 women with laparoscopic confirmed minimal and mild endometriosis. None of the patients were receiving hormonal treatments. Tissue samples of 8 women were obtained by histeroscopy in the office and without anesthesia. In the remaining 4 patients, tissues were obtained by diagnostic curettage during laparoscopy. Biopsies were fixed in 4% paraformaldehyde, cryoprotected in 12% sucrose and embedded in Tissue freezing medium (Shandon, USA®). Serial cryostat tissue sections (12mm) were immunostained with the pan-neuronal marker protein gene product 9.5 (PGP9.5, Abcam, USA®) followed by fluorescein isothiocyanate (FICT) goat anti-rabbit IGG (Millipore, USA®) and examined under a Nikon® Eclipse 800 equipied with epifluorescence. The density of innervation was scored as: 1, Low; 2, Medium and 3, High.

Results

Positive immunostaining was observed in the functional layer of all patients. However, the density of innervation showed a considerable degree of variability. 50% of patients presented a low innervation density (Score 1); 25% a Medium density (Score 2) and the remaining 25% were included in the Score 3. In patients scored as 3, the functional layer presented nerve bundles and a well-developed plexus of isolated varicose fibers distributed in the stroma and in close proximity to the endometrial glands and lining epithelium. The innervation of patients scored as 2, was mainly composed of isolated varicose nerve fibers which distributed in the same tissue locations. In both Scores 1 and 2, nerve fibers were unevenly distributed in different tissue sections. Finally, in patient scored as 1, only a punctuated staining was detected. This staining was not observed after omission of the primary antibody suggesting their neuronal origin. In view of the reduced number of patients, no obvious relationship between the phase of the estrous cycle and the density of innervation was detected.

Conclusions

The diagnosis method of minimal and mild endometriosis based in the detection of nerve fibers in the functional layer of the endometrium continue being promising. However, further studies including a larger number of patients and powerful quantitative methods will be required to confirm the specificity and selectivity of this method.

ES24-0312
Posters

Novel Technique of Neovagina Creation with Uterine Serosa in the Treatment of Vaginal Agenesis Associated with Mullerian Agenesis

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Background

Our aim was to create a neovagina with the least surgical morbidity and the best functional outcome.

Methods

We hereby describe a new technique (Lee's neovaginoplasty) using a combined laparoscopic and vaginal approach in the creation of a neovagina using the uterine serosa layer from the rudimentary uterus and the peritoneum as a graft to line the vagina. This procedure was performed in three patients who were followed-up for a duration of 4 months to 2 years. Vaginal dilation was maintained with a vaginal mold daily for 3 months and three to four times a week thereafter.

Results

Adequate vaginal length of 6-7 cm and width of 2.5 cm was achieved postoperatively. There were no surgical complications and postoperative recovery was fast. Vaginal examination 1 month later showed healthy vaginal tissue with no necrosis or infection. Long-term follow-up did not show any shortening or stenosis of the vagina. Patients were able to have satisfactory sexual intercourse with no pain.

Conclusions

The laparoscopic-vaginal approach of using a uterine serosa and peritoneal graft for creation of a neovagina is a simple and effective approach with minimal surgical morbidity that can create a passageway for satisfactory intercourse.

ES24-0325
Posters

Vaginal Myomectomy for Symptomatic Prolapsed Pedunculated Submucous Myoma in the Outpatient Setting.

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Background

To assess the feasibility of Vaginal Myomectomy for prolapsed pedunculated submucous myoma in the Gynaecology Outpatient setting.

Methods

We report 5 cases of women presenting with pedunculated myoma prolapsing through the cervix with significant menorrhagia at our University Hospital over a period of 6 months.

All the patients were between 45-48 years old. 4 of them were seen in the primary care for the symptoms of heavy menstrual bleeding and were referred to the secondary care when conservative medical management failed. Two of the patients presented to the emergency gynaecological setting before their scheduled outpatient appointment with bleeding, anaemia due to menorrhagia and significant abdominal pain. One patient presented with prolapsed myoma after Uterine Artery Embolisation treatment for fibroids.

All 5 patients were found to have a prolapsed myoma at the cervix. The treatment was carried out in the outpatient setting. They were provided with entonox for pain relief and did not need any other local anaesthesia. They had a nurse talking through out and supporting them during the procedure.

Vaginal and speculum examination was carried out and the myoma was identified. The Endoloop was placed at the stalk above the cervical os and was secured ligating the myoma at the stalk. The prolapsed myoma then was excised. All specimens were sent for histological diagnosis.

The procedures were carried out within 30 minutes. The patients experienced no blood loss from the procedure and did not complain of discomfort or pain.

Results

All 5 patients were discharged the same day without any complications. They did not require readmissions. 4 patients did not require any further gynaecological procedures and their symptoms of menorrhagia and dymenorrhoea settled with myomectomy. One patient underwent an elective hysterectomy for further symptomatic fibroids. The histological dimensions of the prolapsed myoma ranged from 30mm to 120mm, as shown below:
specimen 1: 55 x 40 x 33 mm benign Leiomyoma
specimen 2: 120mm x 75mm Infarcted spindle cell Leiomyoma
specimen 3: 45mm diameter submucous Leiomyoma
specimen 4: 45 x 35 x 30mm submucosal Leiomyoma
specimen 5: 40 x 30 x 30mm submucosal Leiomyoma

Conclusions

Our experience of these 5 cases show that fibroids which are prolapsing into the vagina can be easily removed in a short and painless procedure in the outpatient setting using the Endoloop. The procedure is cost effective, reduces hospital stay and the need for anaesthesia. It can also avoid the need for hysterectomy and the risks of a major operation. In conclusion, vaginal myomectomy is the treatment of choice for prolapsed pedunculated submucosal myoma, and even a large uterine myoma can be successfully removed vaginally in the outpatient setting. It is a safe, easy, definitive method causing minimal discomfort to patients.

ES24-0327
Posters

Tips and Tricks for Robotic Excision of Very Big Myomas (Max Diam.>13 Cm)
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Background

Childbearing delay has increased the need for minimally invasive surgery, even in cases of very big myomas. Robotically assisted myomectomy is the only alternative to transabdominal open procedure.

STUDY OBJECTIVES: To describe tips and tricks used for successful robotic excision of big myomas (13-17 max diameter) in 5 patients.

Methods

PATIENT SELECTION/ PREPARATION: Tips for patient selection included: 1) MRI and US, illustrating the number and position of myomas and the absence of signs suspicious of malignancy, 2) the upper end of the uterine fundus and/or myoma was not higher than 1 cm above the umbilicus, 3) the trocar insertion site was at least 3 cm above the upper end of the uterine fundus 4) the width of the abdomen and the lower rib brim, allowed adequate manoeuvres, 5) three units of blood, were available 6) the laparotomy set was ready for use 7) many sutures already cut at 25cm 8) patient was informed and consented to open surgery if needed

SET UP: The patient was placed in a slight Trendeleburg position (minimizing risks from a prolonged procedure), in Allen stirrups, with arms padded and tucked. A uterine manipulator was placed only to facilitated post myomectomy suturing. Four trocars were inserted, two of 12mm, allowing different placement of camera and operation field view from two different angles, as well as rapid provision of sutures. Side parallel docking was performed. The legs were asymmetrically positioned, that is the one adjacent to the robot was slightly opened, while the other was higher and outward bound, for uterine manipulation.

Results

OPERATIVE PROCEDURE: To reduce bleeding, 1cc of Pitressin diluted in 100cc of normal saline, was injected in the myometrium. In case of big subserosal myomas, 3-4 figure of 8 sutures were placed near the base of the myoma, prior to the excision, in an attempt to minimize blood loss,although at times, temporarily, increases blood loss, but tension and rapid knot tying, allowed for the successful control of the bleeding. Alternating the site of tenacculum placement and myoma traction allowed for accurate visualization throughout the procedure. Surgical team synchronization at the time of completion of myoma excision has been of utmost importance. The anesthesiologist is warned to anticipate and is prepared to address a possible massive blood loss. The nurses prepare multiple Number 0 or 1 sutures to accommodate rapid suturing. The surgeon places preferably figure of 8 sutures at the myoma bed as quickly as possible. Bleeding is more diffuse at the myoma bed, but not at the outer layer.

Conclusions

CONCLUSION: Robotic excision of very big myomas can be feasible and has been successfully completed without conversion to laparotomy in 5 cases

ES24-0328
Posters

How Are We Managing Premenopausal Ovarian Cysts in a University Hospital in United Kingdom

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Background

Benign ovarian cysts in premenopausal women are frequently managed in gynaecology service. As per RCOG guideline, 1 in 10 women have some surgery for ovarian cyst in premenopausal age group.
It is important that we mange these cases in an appropriate way.If surgery is needed, laparoscopic approach is the preferred wayWe are reporting an outcome of how benign ovarian cysts were surgically managed in a tertiary care unit.
This evaluates our current practice and highlights scope for improvement in managing these cases in future.

Methods

A retrospective study was performed in our department.
Borderline tumours and ovarian cysts in pregnancy were excluded from the study.
30 cases of premenopausal benign ovarian cysts were followed from first clinic appointment till surgery.Each case was reviewed from history, clinical examination to biochemical and ultrasound markers to detect their suitability for surgical management.Outcome of surgery and follow up with histology report completed the procedure.

Results

Adequate history and clinical examination are essential components in deciding management of ovarian cysts.
Investigations including ultrasound and blood tumour markers are important in helping the plan of care. Where surgical management were performed following outcome measures were noted

27 out of 30 patients had laparoscopic surgery
16 of them had laparoscopic cystectomies and 11 had oophorectomy
All the laparoscopic procedure had an in-patient stay of around 24 hers
3 procedures that had laparotomy started as a laparoscopy
One had bleeding from pedicle Two were too large to be removed through ports and both turned out to be dermoid cysts

Conclusions

Laparoscopic approach is the preferred way for surgery of benign ovarian cysts
Preoperative assessment including RMI can determine the success of laparoscopic surgery
Bigger and solid complex cysts, suggestive of dermoid, has a less success of being removed laparoscopically
All women should be informed about a small but important risk of oophorectomy
These factors should be added in when counselling patients preoperatively
Continued training in laparoscopic surgery amongst junior trainees will improve the outcome in laparoscopic benign ovarian cyst surgery

ES24-0330
Posters

Laparoscopic Severe Endometriosis

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Background

Proctalgia and dyschezia symptoms are usually seen in severe endometriosis. Up to 16,7% of patients with severe endometriosis has a rectouterine pouch affected with nodules. In 73% of these patients, the rectum is involved and during surgery, a partial resection of the rectum may be needed. Such a surgery may cause serious complications like rectovesical fistulas, hemoor uroperitoneum or pelvine abscesses.

Methods

Herein, we present a video of a 46-years old woman complaining of a pain in the anus and during defecation who was treated with laparoscopic hysterectomy.

Results

No intra-operative or postoperative complications have occured and the patient was discharged with a complete relief of pain and no further complaints.

Conclusions

Patients with a rectouterine pouch affected with severe endometriosis may benefit from a laparoscopic approach facilitating the prevention of related serious complications.

http://player.vimeo.com/video/130226197?autoplay=1

ES24-0336
Posters

Incidence of Port-site Adhesion in Patients After Laparoscopic Myomectomy Used Radially Expanding Trocar

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Background

Radially expanding trocar (RET) has been reported low incidence of port-site hernia, when the facial defect of the incision after decannulation of the trocar was not closed. However, port-site adhesions under the wound made by the RET was unclear. The aim of the study was to access incidence of the port-site adhesion by the RET after laparoscopic myomectomy (LM) by observing via second-look laparoscopy (SLL).

Methods

Five hundred forty-four patients who underwent SLL after LM at our hospital between January 2007 and June 2012 were retrospectively accessed the incidence of port-site adhesion below 2176 previous incisional scars which had been used RET, and which facial and peritoneal defect had been not closed. Factors associated with port-site adhesion formation were evaluated by multiple regression analysis from the surgical outcomes of LM.

Results

Fifteen patients (2.8%) were detected adhesion, and the incidence of port-site adhesion was 0.7% of 2176 scars. Among 15 patients, locations of the wound with adhesion were as follows; 6 (1.1%) under umbilical scar, 5 (0.9%) under right lower abdominal scar, 2 (0.4%) under left upper abdominal scar, and 2 (0.4%) under left lower abdominal scar. Adherent organs of 15 patients including omentum (n = 11), intestine (n = 2), sigmoid colon (n = 1), and ascending colon (n = 1), were not herniated but adhered to scars. The signiï¬• cant factor positively associated with port-site adhesion according to multiple regression analysis was total duration of LM (p=0.02, Odds ratio; 1.01, 95% confidence interval; 1.001-1.018).

Conclusions

Our data suggest that not only incidence of port-site hernia but also of adhesion under incisional scar made by RET is low even though the facial and peritoneal defects are not closed.

ES24-0339
Posters

Hysteroscopic Resection of Endometrial Polyps Using the Duckbill Polyp Snare in an Outpatient Setting

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Background

Endometrial polyps are associated with abnormal bleeding in both pre- and postmenopausal women. Hysteroscopic resection of endometrial polyps is the first choice treatment in most cases. Several possibilities are available to remove a polyp in an outpatient setting; one of these is the Duckbill Polyp Snare. Based on the little literature available the snare appears to be effective in the removal of polyps and well tolerated by patients. The objective of this study is to ascertain the therapeutic efficacy and safety of the snare polypectomy in comparison with mechanical resection by collecting data on the completeness of polyp removal, complications and recurrence rate of polyps.

Methods

We performed a retrospective multicentre data analysis involving women (both pre- and postmenopausal) undergoing an outpatient hysteroscopic polyp resection with either the polyp snare or mechanical resection covering the period from January 2012 to December 2014. Patient data were collected from the electronic patient record, including: patient characteristics; method of resection; indication; polyp type, location, size; completeness of polyp removal; reasons for failure to complete the procedure; need for cervical dilatation and anesthesia; complications and recurrence.

Results

A total of 364 women who were treated in two Dutch hospitals namely Máxima Medical Centre, Veldhoven and St. Antonius Hospital, Nieuwegein have been included in the study. In 134 cases the Duckbill Polyp snare has been used, in 204 cases mechanical resection has been used and in 26 cases both methods were used during the procedure. Removing endometrial polyps by the Duckbill Polyp Snare is effective in 81.3% of the cases versus 86.3% in the mechanical resection group. Furthermore we found no significant differences between both methods regarding safety and complication rate. The reintervention rate within a year in the snare group was 17.2% compared with 5.9% in the mechanical resection group.

Conclusions

Based upon this retrospective study we conclude hysteroscopic polypectomy with the polyp snare is a successful and safe method to remove endometrial polyps in an outpatient setting. The cause of the relatively high reintervention rate needs to be further explored before conclusions can be made. Advantages of the snare are the relative low costs and the acceptable learning curve. However cost effective studies are lacking as well as randomized trials comparing the Duckbill polyp snare to other techniques like hysteroscopic morcellation of the polyp. These studies should be performed in near future.

ES24-0342
Posters

Hysteroscopy and the Risk of Peritoneal Dissemination of Tumor Cells in Early-stage Endometrial Cancer

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Background

Hysteroscopy is the gold-standard exam for endometrial cavity evaluation, with a high sensitivity and specificity for endometrial cancer diagnosis. However, it is not clear whether its performance leads to dissemination of endometrial tumor cell to the abdominal cavity in early stages of endometrial cancer, and if that dissemination is more frequent compared to other forms of endometrial biopsy. The aim of our study was to determine if, in stage I-II endometrial cancer, preoperative hysteroscopy increases the frequency of positive peritoneal cytology, thus worsening the prognosis of these women.

Methods

Retrospective analysis of stage I-II endometrial cancer cases (FIGO staging 2009) who had surgical treatment with peritoneal washing for cytological analysis followed by total hysterectomy and bilateral salpingo-oophorectomy, with or without pelvic and para-aortic lymph node dissection, at the Department of Gynecology of Hospital Beatriz Ângelo, between January/2012 and November/2014. Study population was divided into two groups: patients who underwent hysteroscopy assessment prior to surgery (Group A – GA) and patients who did not (Group B – GB). Hysteroscopies were performed using saline solution as the distention medium, administered via manual pumping; instillation pressure was not registered.

Results

39 cases were included: 28 in GA and 11 in GB. In GA 2 patients had 2 hysteroscopies performed each, but the rest underwent only 1 hysteroscopy. In GB diagnosis was made by endometrial curettage in 5 patients; the other 6 had variable diagnostic methods. We found no statistically significant differences between the two groups regarding patient age at diagnosis, body mass index, prevalence of hypertension, diabetes and abnormal uterine bleeding. None of the patients had previous tubal ligation and two had a prior salpingectomy: 1 unilateral in GA and 1 bilateral in GB. Histologic grade 3 was significantly more frequent in GB (36,3% versus 7,2% in GA), but there were no other statistically significant differences between the two groups regarding tumoral characteristics: histologic type -endometrioid in 82,1% of the cases in GA vs 72,7% in GB; outer half myometrial invasion-25,0% vs 27,3%; and cervical involvement -10,7% vs 36,4%. Positive peritoneal cytology was not statistically different: 7 cases in GA (25%) and 2 cases in GB (18,2%); the later had an additional case of suspicious peritoneal cytology. Average time interval from diagnostic exam to surgery and mean follow-up duration were, in both groups, 51 days and 15 months, respectively. Recurrence rate was similar between the groups: 7,4% in GA (n=2) versus 9,1% in GB (n=1). There were no cases of endometrial cancer related mortality.

Conclusions

In our study hysteroscopy assessment for the diagnosis of endometrial cancer was not associated with a significantly higher rate of positive peritoneal cytology in early-stages of the disease, nor did it have any impact in the prognosis.

ES24-0349
Posters

Essure Sterilization - Placement Success, Safety and Patient Acceptability

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Background

Analysis of 296 women with Essure sterilization done in General Hospital Slovenj Gradec in Slovenia since November 2010 to December 2014, including Essure confirmation test, was performed. During that period 51,7% of all tubal sterilizations done in our hospital were Essure sterilizations. The objective of the study was to assess the safety, placement efficacy, women′s tolerance and satisfaction.

Methods

296 women with Essure sterilization done were treated in line with own clinical pathway, including assessment of pain and satisfaction. 0-10 Numeric Pain Rating Scale as visual analogue scale (VAS) was used for assessment of pain. The vaginoscopy approach under premedication with oral analgetics was performed. In 29 women the procedure was done in the presence of intrauterine device (IUD).

Results

Bilateral placement success was achieved in 287 out of 296 women (97 %) and unilateral in 7 women , including one woman with a hystory of unilateral salpingectomy. Transvaginal ultrasound (TVU) after 3 months confirmed both implants in good cornual position in 225 women (75,3%). In these women TVU was the only confirmation test. In 71 patients also X-RAY and/or HSG were done. 2 cases of perforation happened (0,68%) and one case of unilateral expulsion of microinsert. The average assessment of pain during the procedure was 3,15 (VAS). The satisfaction of patients was high. In the group of women with IUD the probability of bilateral placement success with two procedures is perhaps higher , but the satisfaction was also high because there was no need for alternative method of contraception untill confurmation test was done.

Conclusions

Essure sterilization is safe and very well accepted and tolerated method of permanent sterilization, including in women with IUD. Education , practical skills and strict following the Essure confirmation test protocol are the most important factors for successful procedure.

ES24-0353
Posters

Outcome of Colorectal Resection in Laparoscopically Treated Deep Infiltrating Endometriosis of the Bowel Wall.

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Background

Objective is to evaluate the reasons for attendance, clinical findings, histological reports, rate of complications and outcomes in colorectal resections for the treatment of deep infiltrating endometriosis (DIE) of the bowel wall.

Methods

Retrospective review of medical charts for 42 patients who underwent laparoscopical colorectal resections for DIE performed by an experienced gynaecological surgeon and an colorectal surgeon between May 2011 and March 2015 at the gynecological department in Riga, Latvia.

Results

Reasons for attendance for these patients, with whom 18 patients (43%) had a wish to be pregnant, twenty-seven (65%) women had bowel symptoms, twelve (29%) had rectal bleeding, in 31 case (74%) previous operative therapy with confirmed DIE diagnosis was done, and 36 women (86%) had a severe pain with dyspareunia as the most frequent complaint. In one patient, apart from symptoms mentioned before, there were hydronephrosis and obstruction of the ureter due to DIE. Median age of the patient was 35 (24-45), mean operating time in minutes was 219 (115-540) and mean hospital stay was 6,55 (4-20) days. Hystologically bowel endometriosis was confirmed in 41 patient (98%). Transmural defect was reported in 1 case (2,5%), intramural in 39 cases (95%) and 1 (2,5%) case with endometroid tissue in the serosa layer of the rectum. Additional affected gastrointestinal locations apart from genitourinary tract organs were sigmoid colon (17%), iliocoecum (5%) and appendix (5%). The rate of major complications was 17%, but there was no association with operative time, hospital stay, blood loss, additional resections or level of anastomosis. During the follow up period until now, 3 patients (7%) have needed re-operation due to a recurrence of ovary endometriosis in one case and complications that are not associated with endometriosis in two patients, like obstruction of small bowel and metrorrhagia of unknown etiology. In 2 patients (5%) colostomy was applied due to bowel insufficiency. Two patients (5%) still have endometriosis related pain and dyspareunia after surgical treatment. Five patients (28%) of those women who preoperatively desired pregnancy, subsequently achieved it.

Conclusions

An experienced team can perform the DIE treatment laparoscopically with a low incidence of major complications. Colorectal resections seem not to interact with fertility and it seem to result in good pain relief.

ES24-0354
Posters

Hysterectomies in Tartu University Women's Clinic From 2005 to 2014

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Background

Hysterectomy is one of the most common surgical procedure in gynecological surgery. Laparoscopic surgery is related with some benefits for patients, such as shorter hospital stay and quicker return to work.

Methods

To describe hysterectomy types over time. Hysterectomies for benign indications from 2005 to 2014 were studied. For each hysterectomy case, the diagnoses according to the International Statistical Classification of Diseases and Related Health Problems (ICD-10) and the surgery type according to Nordic Medico-Statistical Committee was retrieved from the hospital database.

Results

The total number of hysterectomies was 2104. The proportion of abdominal hysterectomies decreased from 31% to 15%. The proportion of laparoscopic hysterectomies increased from 43% to 82%. The proportion of vaginal hysterectomies decreased from 26% to 3%. The main indications for hysterectomies were uterine fibroids and related problems.

Conclusions

In Tartu University Women's Clinic, the proportion of laparoscopic hysterectomies has significantly increased during the last decade.

ES24-0360
Posters

Complications of Laparoscopic Colpo(Histero)Sacropexy: The Initial Experience of a Portuguese Terciary Hospital Center

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Background

Genital prolapse is a highly prevalent disorder in women with a lifetime risk of surgical repair of 11.1% and it is associated with stress urinary incontinence in 38%. Different approaches may be used to treat pelvic organ prolapse but laparoscopic colpopexy is now considered to be the goldstandard for the treatment of apical defects, with excellent short- to medium- term outcomes for patients. The objective of this work was to report the intra- and post-operative complications associated with the use of the laparoscopic approach for the treatment of pelvic organ prolapse in our institution (a terciary hospital).

Methods

From March 2012 to March 2015, 18 women with genital prolapse were submitted to laparoscopic sacral colpopexy with placement of a mesh. The follow up assessment was done at one, six and twelve months with clinical evaluation of complaints and physical exam. The primary outcome was the occurrence of an intra-operative complication and the secondary outcomes were the recurrence of the genital prolapse, mesh complications, complaints of pelvic pain or urinary/ intestinal symptoms.

Results

The mean age of the women included was 57.7 years-old; surgical indications were recurrent vaginal vault prolapse in 5 cases and uterine prolapse grade II in 3 cases. The 3 women with uterine prolapse wanted to preserve the uterus so colpopexy was performed with uterine preservation. The operative time ranged from 210 – 295 minutes and the length of the hospital stay varied from 3 to 7 days. There were three peroperative complications (16,67%): 2 vesical lacerations and a rectal lesion, all with immediate surgical correction followed the prolapse correction; one of the patients had an acute urinary retention after the surgery. For all the remaining women, the postoperative period was uneventful. At the follow-up visits, all patients referred significant improvement of vaginal bulge sensation and none complained of dyspareunia. No mesh complications (erosions and/or infection) were detected and there were no relapsing genital prolapses. One of our patients complained of constipation and difficult defecation; in two cases women complained of urge incontinence, with no stress incontinence associated.

Conclusions

Despite our short experience, laparoscopic colpopexy is a feasible technique with very good reconstructive results. There was a low rate of intra operative complications and even less complications reported in the follow-up visits. There was a good overall satisfaction with the procedure among these women.

ES24-0362
Posters

Deep Endometriosis - Symptoms and Gynecological Examination Confronted with Sonovaginography

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Background

Deep endometriosis (DE) represents an important clinical problem in women of child-bearing age, having a great impact in their quality of life. Frequently, it has a late diagnose despite how long the symptoms may be present. Physical examination may identify e visualize some lesions and sonovaginography may complement it and help to better characterize those lesions.

The objective of this study was to evaluate and compare clinical data and physical examination with sonovaginography results, in women with suspicion of deep endometriosis.

Methods

Retrospective analysis of clinical data, gynecological examination and sonovaginography scan of women with suspicion of deep endometriosis, from January/2014 to February/2015.

Results

We included a total of 22 women. Mean age was 35 years. Most report symptoms were: dysmenorrhea (18/22) and dyspareunia (9/22). Other mentioned complains were: intestinal symptoms (8) such as rectal bleeding (4), urinary symptoms (2) like dysuria and frequency and also abnormal uterine bleeding (4). Infertility was described in 10 cases. Ca 125, a tumoral marker associated with advanced cases of DE, was determined in 12 cases and appeared elevated in four. As previous treatment, four women had been submitted to surgery, including cystectomy of endometriomas (three patients) and segmental ressection of colon due to the presence of a node of endometriosis (one patient). Of the other eighteen, 15 were under hormonal pills. Physical examination with speculum revealed lesions suggestive of endometriosis at the level of the posterior cul-de-sac in 5 patients and in the right lateral cul-de-sac in two patients. Gynecological manual examination felt the presence of nodular lesions in the anterior cul-de-sac (2), posterior cul-de-sac (7), right lateral cul-de-sac (1) and left lateral cul-de-sac (1). Sonovaginography detected lesions suggestive of DP in 15 women, four of which had concomitant ovarian lesion (endometrioma); and negative uterine sliding signal in two women. Tridimensional ultrasound evaluation showed an augmented junctional zone (>8mm) in three women. Of these 22 women, 9 were submitted to laparoscopic surgery which confirmed the presence of lesions of DE in all of them.

Conclusions

Despite the reduced number of women with suspicion of DE who performed sonovaginography during this period, this type of ultrasound scan was an important complement to the clinical evaluation as it revealed lesions that had not been detected on physical examination, making it possible to better characterize its location and extension, which is most valuable for managing and planning a treatment.

ES24-0366
Posters

"To Close or Not to Close?"; The Debate Revisited

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Background

Over the past 10 years there has been increasing debate over the closure versus non-closure of peritoneal layers at the time of caesarean section. Historically closure of both layers was advised as this was thought to correctly restore anatomy and reduce the risk of adhesion formation. Current NICE guidance advises against the closure of the peritoneal layers and this now appears to be common practice amongst obstetricians nationwide. Uterine to abdominal wall adhesions are not a well documented long term complication associated with CS, however with this change in practice, we have increasingly encountered extensive uterine adhesions at the time of laparoscopy in women presenting with pelvic pain with approximately 20 cases in the past 10 years. We present one such case, resulting in chronic pelvic pain, and also review the literature regarding closure versus non-closure of the peritoneal layers and explore possible long-term surgical implications.

Methods

Case report

Results

NA

Conclusions

Non closure of the peritoneum at the time of caesarean section now appears to be a well established practice amongst obstetricians in the UK. Although it is impossible to definitively link this practice to the increasing prevalence of uterine to abdominal wall adhesions, it certainly appears to be a significant causative factor. These type of adhesions not only attribute to chronic pelvic pain, but they also have technical implications especially at the time of laparoscopic adhesiolysis and hysterectomy. Further studies are therefore essential to assess the long term effects on non-closure of the peritoneum.

ES24-0368
Posters

Double Trouble; Vesicovaginal Fistula and Ureteric Injury Following Laparoscopic Assisted Vaginal Hysterectomy.

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Background

The purpose of this case study is to increase awareness of delayed presentation and complex nature of urinary tract injuries following gynaecological surgery.

Urogenital fistulae are uncommon in the developed countries and most cases in the UK are sequelae of hysterectomy for benign disease. The different types of urogenital fistulae are defined by the anatomical communications in the connecting tract. Vesicovaginal fistulae (VVF) are the most common type. The majority of urogenital fistulae are due to urinary tract injuries that are not recognised during surgery however, fistulae may also form despite recognition and repair of injuries intraoperatively.

Methods

A case report of a complication arising from laparoscopic assisted vaginal hysterectomy (LAVH). The 41 year old patient had a past medical history of pelvic infections and endometrial ablation following which she developed persistent intractable vaginal discharge. She had multiple admissions with significant vaginal discharge and pelvic pain and requested a hysterectomy for definitive management. At the LAVH she was found to have adhesions making dissection of the plane between the cervix and bladder challenging. A 4cm linear bladder injury was identified and an open repair was completed. A urinary catheter was left in place for 14 days and then a cystogram showed no extravasation.

Results

Following removal of the catheter the patient had continuous urinary vaginal leakage and a methylene blue test confirmed a fistula. A cystoscopy and retrograde study revealed a VVF and the left ureteric orifice was not clearly seen, suggesting involvement of the left distal ureter. A subsequent CT intravenous urogram also did not visualise the distal left ureter, further strengthening suspicion of ureteric injury. A multidisciplinary team review confirmed a complex vesico-ureteric-vaginal fistula. The patient had an abdominal repair of the VVF and reimplantation of the left ureter several months later. The patient made a good recovery however complains of some urinary storage symptoms.

Conclusions

Iatrogenic injuries are feared complications of gynaecological surgery. Previous endometrial ablation and infections may have contributed to the challenging surgery and bladder injury that this patient sustained. Most cases of ureteric injury are not recognised at the primary surgery requiring further secondary surgery. Informed consent and appropriate counselling should not be underestimated in its value in complications such as these.

ES24-0371
Posters

Intraoperative Diagnosis of Gastrointestinal Endometriosis: 2 Unusual Clinical Cases

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Background

The exact prevalence of gastrointestinal involvement of endometriosis in the general population is unknown, although it is estimated that it affects between 3.8% and 37% of women with endometriosis, most commonly in the sigmoid colon, rectum, and terminal ileum. Although bowel endometriosis may cause severe gastrointestinal symptoms, these disturbances are not often adequately investigated at the time of gynecologic evaluation. As a result, bowel endometriosis may be an unexpected finding at the time of surgery.

Methods

Case 1: 41 years old, 1G 1P 18 years earlier, reports some difficulty to get pregnant and long time dysmenorrhea. No other medical or surgical relevant history.

History of pelvic pain on the lower right abdominal quadrant for 7-8 months. Complementary investigation revealed: no analytical changes, namely of tumor markers; colonoscopy unable to exceed sigmoid; abdominopelvic TC revealed “centered in the terminal ileum, involving ileocecal valve, there is a thickening suggestive of tumoral etiology, without dilatation of the loops upstream, raising the diagnostic hypothesis of adenocarcinoma, lymphoma and neuroendocrine tumor.”

Case 2: 28 years old, 1G 1P 7 years earlier; Combined oral contraception since then. No surgical or medical history reported, referring only dysmenorrhea since the delivery.

Refers colichy abdominal pain and diarrhea with about 8 months of evolution, with an inicial weight loss of 11kg.

The complementary diagnostic investigation was inconclusive (no progression of colonoscopy due to external compression, negative tumor markers other than a slight elevation of CA125, Abdominal tomography also not conclusive).

Results

Case 1:Underwent a laparoscopic surgery for suspected appendicular tumor. Multiple lesions compatible with pelvic endometriosis were found: pelvic wall, uterus, rectum and ileum, as well as multiple adhesions especially between colon and terminal ileum to right adnexal area. A right ileocolectomy with latero-lateral ileocolic anastomosis was performed. The histological examination confirmed the presence of ileo-colic and peritoneal endometriosis.

Case2:In the presence of an intestinal occlusion of undetermined etiology underwent an exploratory laparotomy which revealed rectosigmoid occlusion by a nodule of endometriosis (histological examination: "diffuse transmural lesions of endometriosis"), being performed an Hartmann surgery, extended to the proximal retum and left anexectomy (endometriosis of left ovary, also), been left with ostomy for subsequent closure

Conclusions

Both cases reflect the diagnostic challenge of gastrointestinal endometriosis, as well as the potential significant morbidity that it may implicate, reinforcing the importance of maintaining a high index of diagnostic suspicion, once preoperative diagnosis may help guide management, allowing for less invasive surgical approaches and better patient outcomes.

ES24-0375
Posters

Can the Risk of Subsequent Hysterectomy Following Endometrial Ablation Be Predicted?
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Background

To identify clinical factors that predict the risk of subsequent hysterectomy in women who had endometrial ablation.

Methods

Retrospective study of case notes of patients who underwent endometrial ablation over a five year period and required further hysterectomy within next 5 years. The surgical coding search with the codes for endometrial ablations and hysterectomy between January 2004 and December 2009 yielded the results of patients who underwent endometrial ablation and subsequent hysterectomy over a period of five years.

Results

A total of 39 patients were identified to have hysterectomy in the subsequent five years following endometrial ablation. The cohort consisted of women between 28-52years (mean 38). 21/39 had Novasure endometrial ablation and the remaining 18 had Thermal balloon ablation. The mean time interval between endometrial ablation and hysterectomy was 2 years. Factors predictive of subsequent hysterectomy were presence of fibroids(10/39), adenomyosis(12/39), length of the uterine cavity(>9cm). There was no correlation between age, parity, BMI, previous sterilisation or previous caesarean section and the risk of subsequent hysterectomy. Interestingly not all patients with adenomyosis or fibroids had significant pain prior to endometrial ablation. Only 9/39 patients had dysmenorrhoea before endometrial ablation. When the indications for hysterectomy were analysed all these 9 patients had hysterectomy for persisting pain rather than heavy menstrual bleeding.

Conclusions

Endometrial ablation is an excellent minimal invasive technique for the treatment of heavy menstrual bleeding as an alternative to hysterectomy. But careful selection of patients and more importantly counselling of the patients regarding the expected outcomes is essential. These findings should help the clinician in decision making when considering treatment options for heavy menstrual bleeding. Thorough history taking for presence of dysmenorrhoea and preoperative ultrasound scan for size of the uterus and presence of fibroids or adenomyosis helps in appropriate patient selection.

ES24-0377
Posters

Extra Peritoneal Laparoscopic Colposuspension for Sui: Short Term Follow Up

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Background

Laparoscopic colposuspension has been shown to be equivalent to the open procedure in Cochrane reviews (July 2006), however, it did not catch momentum due to the technical demand of the procedure the emergence of tension-free vaginal tapes (BJOG.2006).

Methods

Prospective study the first cohort of patients who underwent extraperitoneal laparoscopic colposuspension as primary operation for SUI in 2013-2014. Data was collected from BSUG database. Veress needle was used to insufflate 1 litre of CO2 into the retropubic space (RS). A 10 mm trocar introduced at the umbilicus then pierces the rectus sheath midway between the umbilicus and the symphysis pubis to access the retropubic space without opeing the peritoneal sac. Two 5 mm suprapubic trocars are introduced and, using perineo-abdominal approach, the vagina at the level of the bladder neck is dissected and attached to Cooper's ilio-pectineal ligaments with 2 non-absorbable sutures on each side as usual. Catheter was removed the following day. Follow up time was 9-18 month. We compared pre and postoperative ICIQ-UI questionnaire and PGI-I.

Results

Fourteen patients underwent EP-LC in a period of 24 months. The mean age is 46 years and mean BMI is 31.7 kg/m2. All patients had PFMT and urodynamics showed 14.2% mixed UI and 85.7% USI. No concomitant procedures were performed and there were no intraoperative complications. Average blood loss is <50 mls. The length of hospital stay 1-3 days. 2 patients had temporary urinary retention that resolved. One patient had persistent haematuria but negative cystoscopy. One patient was readmitted with UTI that responded well to antibiotics. Global impression of improvement after surgery 6 patients answered very much improved, 2 patients much improved and 6 patients didn’t answer. Mean postoperative IEF is 2.5, amount is 3.3, QoL is 6.3 and pads 1.3. 2 patients had urgency postoperative. Vaginal symptom is 3.4 and sexual matters 13.7.

Conclusions

Our intial experience confirms that extraperitoneal laparoscopic colposuspension is safe, easy to learn and effective procedure on the short term, that could be offered to women with SUI as a minimally invasive alternative to vaginal mesh tapes.

ES24-0378
Posters

Shortcomings in the Application of the Cognitive Apprenticeship Model in Clinical Training and the Lessons We Can Extrapolate for Successful Laparoscopic Training.

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Background

Traditional teaching, especially in technical fields, used the apprenticeship model. Collins et al. in 1991 described the instructional teaching model of Cognitive Apprenticeship , which is a situated teaching model where the expert is required not just to demonstrate the technical (or clinical) procedure, but also to vocalize their thinking, so that the students can learn from their thought process and the various points experience that informed the teacher's decision-making. Thus, Cognitive Apprenticeship can be an extremely effective means of training in Gynaecological endoscopy.

Cognitive Apprenticeship encompasses 6 key teaching methods:
Modelling: the expert shows the students how the task is done, while vocalizing "their thought process"
Coaching: the students perform the task under expert supervision
Scaffolding: the expert "fades" as per student needs
Articulation: the students articulate their thoughts during performing the task
Reflection: the students reflect on the tasks they performed and compare their performance to expert performance
Exploration: the students perform tasks independently

Methods

I present a review of the methods of Cognitive Apprenticeship and the shortcomings in the application of its methods in medical training.

Results

Studies have demonstrated that Cognitive Apprenticeship is not being used to its full potential in clinical medicine due to shortage of time available to clinical teachers, short placements of students, clinicians while modelling not describing why they were doing what they were doing, clinicians being unaware of the exact stage of student's learning and more emphasis on assessment than feedback. Also, reflection and exploration, though deemed as the two most useful components of â€¨cognitive apprenticeship, remained largely unused.

Conclusions

Successful application of the Cognitive Apprenticeship model can enhance medical training. Cognitive Apprenticeship has value in laparoscopic training as trainees can benefit not only by learning expert's skills but also his way of thinking and approaching complex surgical cases.

ES24-0380
Posters

Proposing a Curriculum for the Structured Training of Endometriosis Specialist Nurses

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Background

Â†Endometriosis specialist nurses act as an interface between the endometriosis team and the patient. They Â†play the key role of supporting patients through their journey. However, the role of an endometriosis specialist nurse is not clearly defined and is still evolving.

Methods

I propose a structured curriculum for the training of endometriosis specialist nurses based on the principles of higher education. The aim is to provide a succinct summary of the expectations from an endometriosis specialist nurse and to structure their training accordingly.

Results

I discuss the key aspects of the curriculum and the intended learning outcomes for an endometriosis specialist nurse under the 4 subheadings:

1. Clinical
2. Administrative
3. Audit and Teaching
4. Patient Support

I also propose learning tools and assessments for endometriosis specialist nurses which are aligned to the intended learning outcomes.

Conclusions

I believe that such a structured training provided to the endometriosis specialist nurses will have a positive influence on the quality of care received by the endometriosis patients.

ES24-0386
Posters

Diagnostic Outcomes After Hysteroscopy in Postmenopausal Patients Regarding the Presence or Absence of Abnormal Uterine Bleeding

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Background

Endometrial carcinoma is the most common malignancy of the female genital tract in the developed world and presents with postmenopausal bleeding in more than 95% of the cases. The aim of this study was to evaluate the diagnostic outcomes of postmenopausal patients submitted to hysteroscopy for abnormal uterine bleeding or sonographic endometrial thickness, comparing the symptomatic with asymptomatic patients.

Methods

A retrospective descriptive study of 150 postmenopausal patients submitted to hysteroscopy in our institution, between July 2012 and March 2014, was carried out. The patients were randomly assigned and were evaluated for age, hysteroscopic findings, complications and histological diagnosis. Patients with abnormal uterine bleeding were compared with the asymptomatic ones.

Results

The mean age was 61 years (minimum 46 and maximum 89). Endometrial polyps were the most frequent hysteroscopic and histological findings and the neoplasia rate was 2%. Surgical ressetoscopy was performed in 79,3% of the patients (n=119). There were no significant statistical differences regarding age and frequency of endometrial polyps between the symptomatic (n=68) and the asymptomatic (n=82) groups. All the 3 cases of endometrial carcinoma occurred in the symptomatic group. There were no complications reported.

Conclusions

Regarding our results, that are consistent with the literature, we conclude that the postmenopausal patients with abnormal uterine bleeding have a higher risk of malignancy that the asymptomatic patients with endometrial thickness.

ES24-0389
Posters

Urinary Dysfunction Following Laparoscopic Excision of Deep Infiltrating Endometriosis of the Pelvis

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Background

Many studies have been published with recommendations for the approach to deep infiltrating endometriosis (DIE) involving urinary and/or gastrointestinal systems, but only few data report on the risk factors for and the management of urinary dysfunction (UD) following DIE surgery. The primary endpoints of the present series were to evaluate postoperative UD in patients who underwent surgical excision of DIE (>5mm depth) laparoscopically and to conduct a review of the literature for understanding the pathophysiologic mechanisms, with assessment of the available evidence regarding the role of nerve sparing surgical techniques intraoperatively and the contribution of emerging treatment modalities postoperatively for persistent voiding dysfunction.

Methods

A retrospective analysis of all patients who underwent DIE surgery in the last 54 months and presented with UD postoperatively, at the Department of Obstetrics and Gynaecology of Ziekenhuis Oost-Limburg. The severity of UD was evaluated by categorizing the reported symptoms according to the short form version of the Urogenital Distress Inventory.

Results

Around 1/5 of the patients experienced some form of transient voiding dysfunction, requiring intermittent self-catheterization. Persistent voiding dysfunction (PVD) was seen in 3-4% of the patients. Among the other postoperative urologic morbidity was urinary infection the most common (25%) while hydronephrosis was the least common. All included patients had pathology confirmed diagnosis of DIE. Overall time to resume voiding was 2 days. No specific nerve sparing technique was systematically performed.

Conclusions

Dissection at the uterosacral ligaments and the paracolorectal spaces in DIE surgery is a potential risk factor for the development of UD. Mostly this comprises of voiding difficulties and/or sensory disturbances, but UD can also be a hazard for recurrent urinary tract infections. Whereas measuring postvoid residual volumes is useful in diagnosing UD, there is a need for systematization of validated questionnaires to detect mild chronic UD giving rise to complications on long term. Intermittent self-catheterization is still the gold standard in managing PVD. Currently, there is no evidence for medical treatments. Sacral neuromodulation for PVD is appearing to be useful in some patients but further confirmative studies are required. The true impact of nerve sparing surgical techniques on postoperative outcome is difficult to assess.

ES24-0391
Posters

Robotic Da Vinci Xi System in the Management of Recurrent Pelvic Cancer

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Background

The aim of this study is to establish the feasibility of the management of recurrent pelvic cancers by robotic Da Vinci Xi system, and particularly the feasibility of robotic pelvic Exenteration (RPE) in a single institutional series.

Methods

From October 2014 to April 2015, 7 women received robotic Da Vinci Xi assisted RPE for recurrent cervical (5 patients) and endometrial cancer (2 patients). In 5 cases (71.4%) anterior RPE was attempted, while in the remaining 2 women a total RPE was required. As part of surgical debulking, 5 patients (71.4%) received total colpectomy. In all cases a Bricker ileal conduit urinary diversion was performed. When total RPE was needed Miles' procedure was carried out. Prioperative details, and complications were recorded and graded according with Dindo Classification.

Results

Seven patients at the Gynecologic Oncologic Unit, Catholic University of the Sacred Heart, Rome, Italy, were treated for recurrent pelvic cancer, and received Da Vinci Xi RPE. The median age was 69 years (61–74). The median BMI was 24 (18-31). The median operative time was 470 min (360 - 600). The median estimated blood loss was 390 ml (100-1500). One conversion to laparotomy was required due to external iliac vein injury managed without sequelae. One G2 early postoperative complication was observed, and the median hospital stay was 8 days (5-13). No late postoperative complications were documented.

Conclusions

The surgical management of recurrent pelvic cancer by robotic Da Vinci Xi system is feasible for selected indications, and a reliable alternative to laparotomy. Further prospective studies enrolling higher number of patients are needed to confirm our results.

ES24-0393
Posters

Hysteroscopic Resection of Submucous Myomas: is It Always Useful?

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Background

The study is designed to assess postoperative outcomes of patients undergoing hysteroscopic myomectomy, with special regard on the correlation between indication, preoperative assessment and treatment and the need of a two-stage procedure and postoperative symptoms persistence.

Methods

A retrospective study was performed reviewing clinical and surgical data of 336 patients who underwent diagnostic hysteroscopy under sonographic or clinical suspicion of submucous myoma in our institution between January 2011 and December 2014.

Results

Median age of our patients was 44 years (range 23- 78 years), and mean BMI was 25.6 (range 17.9-46.9). Most frequent symptom was uterine bleeding, in 79.5% of cases (n=267). Medical treatment previous to hysteroscopy wasn't considered in 74,1% (n=249) of cases, 13.7% (n=46) of patients received GnRH analogues, and 2.1% (n=7) Ulipristal acetate. Sonographic exam informed multiple myomas in 47% of patients. Of a total of 537 myomas diagnosed in sonographic exam, 262 were informed as submucous: 3.5% (n=19) type 0, 13.2% (n=71) type 1, and 38.1% (n=205) type 2. A 64% (n=169) of submucous myomas (type 1, 2 or 3) suspected by sonographic exam, were confirmed in diagnostic hysteroscopy, being patients who initially consulted for abnormal uterine bleeding more likely to have a submucous myoma in diagnostic hysteroscopy (67%, p = 0.003). Hysteroscopic myomectomy was performed in 165 (49.1%) patients. The most common procedure was resectoscopic myomectomy, performed in 156 patients (94.5% of all myomectomies), followed by scissor resection of small myomas in 10 patients (3%), and laser vaporization in 7 patients (2.1%). In 35 patients (21% of myomectomies) a two-stage procedure was needed. Significant differences in the size of myomas in patients who needed a two-stage procedure (mean 26.4 mm vs 35.3mm, p = 0.001) were found. Myomas smaller than 30mm were significantly less likely to need a two-stage procedure than those measuring 30mm or more (12% vs 31%, p = 0.005). 31.8% of patients (n=107) needed additional treatment after hysteroscopy due to persistence of symptoms: 10.4% of them (n=35) received treatment with levonorgestrel releasing intrauterine device; 11.6% of patients (n=39) needed further surgical treatment (abdominal myomectomy or hysterectomy). Patients who needed preoperative treatment with GnRH analogues or Ulipristal acetate based on severity of symptoms were more likely to need postoperative medical or surgical treatment (28% vs 44%, p = 0.006).

Conclusions

Based in our series, sonographic exam hasn't proved to be useful in the diagnostic of submucous myoma or for the assessment of resecability. Presence of uterine bleeding and severity of symptoms should be considered and it might be necessary to previously perform a diagnostic hysteroscopy in order to assess resecability based on presence, type and size of myoma.

ES24-0396
Posters

What Laparoscopic General Surgeons and Gynaecologists Want From Integrated Theatres: A Discrete Choice Experiment to Compare the Individual Features.

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Background

Technological advancements have resulted in improvements in theatre design. The integrated theatre is a state-of-the-art system where the laparoscopic equipment is installed in columns attached to a ceiling-mounted suspension system that facilitates positioning, with multiple permanently installed screens. There are many features (attributes) on offer but there is very little available research on which of these features are valued by the different groups of surgeons using these theatres.

The aim of this study was to compare the preferences of general surgeons and gynaecologists when choosing the features of integrated theatres using a discrete choice experiment.

Methods

A questionnaire incorporating a discrete choice experiment was used to obtain participants' stated preference for seven attributes of integrated theatres: screens and stack position (mounted on the floor or ceiling), adjustability of screens and stacks (fixed or fully adjustable), CO2 gas supply (piped or in canisters), control of lap light, gas on off, and room lights (non scrubbed nurse control or sterile surgeon control), routing of wires (across the floor or wire free floor) and ability to externally transmit video images. Participants were recruited from the British Society of Gynaecological Endoscopy and the Association of Laparoscopic Surgeons of Great Britain and Ireland.

Results

165 laparoscopic surgeons responded (102 gynaecologists and 63 general surgeons). 121 (73%) were consultants, 20 (12%) were senior trainees with the remainders being doctors at other grades. 122 (73.9%) were male and 43 (26.1%) were female. 120 (72%) respondents performed major laparoscopic surgery at least every fortnight. The key attribute for both gynaecologists and general surgeons was: screens and stacks fully adjustable for height, position and angle. There were very similar preferences between gynaecologists and general surgeons for the other attributes.

Conclusions

Gynaecologists and general surgeons want similar attributes in laparoscopic integrated theatres. As these two groups of surgeons are likely to share these facilities these findings are reassuring that one system is likely to be optimal for both groups. This information will enable purchasers to choose systems which are fit for purpose without the cost involved in purchasing attributes which are not preferred. It will also help manufactures to offer theatres which are fit for purpose but at reduced cost. This should help facilitate the wider adoption of integrated theatres.

ES24-0404
Posters

A Comparison of Laparoscopic Myomectomy: Transumbilical Single-port, Two-port and Conventional Three-port Laparoscopic Surgery

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Background

The aim of this study is to compare surgical outcomes between laparoscopic single-port, two-port, and conventional three-port myomectomy for the surgical treatment of uterine myoma.

Methods

Retrospective study was conducted on 191 consecutive women who underwent single-port, two-port myomectomy with conventional three-port myomectomy for the management of uterine myomas between January 2009 and December 2014 by review of medical records.

Results

The three study groups did not differ in terms of patient demographics or surgical outcome except operative time. The single-port myomectomy group had statistically significantly longer operative time ($p<0.05$) compared with two-port and multi-port surgery, but the latter half case showed no difference with conventional multi-port surgery and showed comparable operative outcomes.

Conclusions

Single-port and two-port myomectomy with transumbilical contained manual morcellation of myoma were feasible and safe compared with conventional three-port myomectomy. These procedures suggest an alternative for minimally invasive management of symptomatic uterine myoma without use of the power morcellator.

ES24-0409
Posters

Mini-laparoscopic Single-port Hysterectomy Vs. Vaginal Hysterectomy: Surgical Outcomes and Post-operative Pain Comparison

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Background

During the last years, a significant part of the innovations in minimally invasive surgery have focused on reducing both the caliber (mini- and micro-laparoscopy) and the number of the instruments used. Minilaparoscopic single-port hysterectomy (mLSPH) is an innovative technique, which tries to combine the advantages of these two strategies of surgical trauma reduction. The entire procedure is accomplished using only two 3-mm-diameter trocars, inserted one next to the other through the umbilicus, with the aid of a uterine manipulator and no other skin incision: one trocar is for a 3-mm scope, while in the other trocar, 3-mm bipolar forceps and electrified scissors are alternatively inserted to perform the intervention.
Aim of this study is to compare mLSPH to traditional vaginal hysterectomy (VH), paying particular attention to surgical outcomes and post-operative pain.

Methods

Data about all hysterectomies performed at the Obstetrics & Gynecology Department of the University of Insubria (Varese, Italy) in the period between 1st January and 30th June 2014 have been collected. We compared surgical outcomes and post-operative pain of all patients who underwent mLSPH and VH (with or without concomitant salpingo-oophorectomy) during the study period. Inclusion criteria were: uterine size ≤ 16 gestational weeks; ASA (American Society of Anesthesiologists) score ≤2; post-operative clinical follow-up ≥30 days; non-prolapsed uterus (Baden-Walker ≤1); benign disease. All procedures have been performed by the same surgical team, with high experience both in laparoscopic and vaginal surgery. Demographic and intra-operative characteristics were compared between the two groups. Postoperative pain was measured using the visual analogic scale (VAS) at 1, 3, 8, and 24 hours postoperatively. Intra- and post-operative outcomes were carefully recorded, including the need for post-operative rescue doses of analgesics.

Results

A total of 15 and 17 patients were included in the mLSPH and VH groups, respectively. No differences were observed between the groups in terms of demographic characteristics. Operative time was not significantly different (mLSPH 50 vs. VH 60 minutes, p=0.07), while estimated blood loss was lower in mLSPH group (30 vs 100 mL, p=0,02). One (6.7%) conversion to conventional mini-laparoscopic hysterectomy occurred in the mLSPH arm. No conversion to open surgery was needed. Post-operative pain was significantly lower in the mLSPH at 1, 3, 8 (p<0.001) and 24 (p=0.02) hours after the procedure. Five patients (33.3%) in the mLPSH and 11 (64.7%) in the VH group needed post-operative rescue doses of analgesics (p=0.08).

Conclusions

This preliminary series shows that, in selected cases and in the hands of experienced minimally-invasive surgeons, mLSPH represents an attractive alternative to VH, with benefits in term post-operative pain and comparable surgical outcomes.

http://player.vimeo.com/video/130016879?autoplay=1

ES24-0412
Posters

Use of Ulipristal Acetate Prior to Surgery for Uterine Fibroids

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Background

To evaluate efficacy and safety of a 3-months- cycle of ulipristal acetate (UA) as previous treatment of uterine fibroids before surgery.

Methods

Retrospective study from January 2013 to May 2015 of 61 patients treated with UA. Haemoglobin levels and fibroid size were evaluated previously and after AU administration.

Results

Mean age was 44 years (range 21-56). The indications of AU administration were to reach a more minimally invasive surgery in 15/60 patients (25%), to increase haemoglobin levels in 22/60 (36.7%), to reduce fibroid size in 18/60 (30%) and sterility issues in 5/60 (8.3%).The location of fibroid was intramural in 43% (25/58), subserosal in 17% (10/58), submucosal in 26% (15/58) and panmural in 14% (8/58). Adverse effects proportion was 6.7% (4/60) being the most frequent headache in 2/4 patients (50%), which caused withdrawal of treatment in one case, followed by hot flashes in 1/4 patients (25%) and fluid retention in 1/4 patients (25%). After 3 months of UA a median increase of haemoglobin levels of 2.23 g/dl ($p<0.001$) was observed. Median fibroid size decreased form 55.73mm to 51.63mm ($p= 0.041$) which corresponds to a reduction of 20.48% of the initial fibroid volume. No differences in fibroid reduction were observed between different locations. Size variations were -4.77mm for intramural fibroids, 0.14mm for submucosal , -10.17mm for subserosal fibroids and -3mm for panmural ($p=0.37$). Surgery was declined in 20/60 patients (33.3%) as consequence of symptoms remission.

Conclusions

UA has scarce and light adverse effects which leads to optimal treatment adherence. Size fibroid reduction and increase in haemoglobin levels makes of UA an interesting option before fibroid surgery.

ES24-0420
Posters

Management of Postoperative Bleeding After Operative Hysteroscopy.

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Background

To assess the management of postoperative bleeding after operative hysteroscopy with the use of a balloon intrauterine catheter.

Methods

23 women that were submitted to operative hysteroscopy for resection of myoma with resectoscope or septotomy using scissors and had significant postoperative intrauterine bleeding have been included. These patients were managed with placement of an intrauterine balloon catheter. The tip of the catheter after the balloon was cut in order to facilitate better access of the balloon to the fundal part of uterine cavity. The balloon was filled with normal saline up to the point that there was not bleeding seen from the external cervical os. If there was still bleeding and the balloon could not be inflated more to control bleeding the catheter was replaced with a larger catheter. The rationale was that a bigger catheter would have a bigger balloon with larger capacity and therefore it could be inflated with more normal saline, applying more tension to the uterine cavity. Therefore, the size of balloon could be ''tailored'' to the needs of uterine cavity, providing better application of balloon to the uterine cavity walls and maximizing the applied tension. Women were either discharged home the same day with the catheter in place or the next day.

Results

Out of the 23 women managed for significant postoperative bleeding 9 had operative hysteroscopy for submucous intrauterine myoma and 14 for dissection of a uterine septum(septotomy). The normal saline volume used varied between 8 mls (folley catheter Fr no 14) to 90 mls (folley catheter Fr no 22). No patient required blood transfusion. All cases were managed successfully in respect of bleeding control.

Conclusions

Management of postoperative intrauterine bleeding following operative hysteroscopy could be effective by adapting the size of intrauterine balloon catheter which is going to be inflated and subsequently the amount of fluid used to the requirement of individual uterine cavity. It could provide adequate intrauterine pressure for bleeding control.

ES24-0421
Posters

Total Laparoscopic Hysterectomy (TLH): A Holy Grail or a Harbinger of Trouble?

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Background

The Introduction of Total Laparoscopic Hysterectomy (TLH) in recent years has lead to an increased number of hysterectomies performed laparoscopically. Vaginal route is considered preferable for hysterectomy, however abdominal hysterectomy (TAH) has been a standard approach for benign pathology when vaginal hysterectomy is not possible. It was proven to be safe and effective, however carries the disadvantages such as prolonged hospital stay, morbidity, delayed recovery and costs. Despite these, abdominal hysterectomy is still a very common procedure.

Objective. To analyze indications, complications associated with TLH and TAH, duration of hospital stay, correlation of pre-and postoperative histopathology, and to analyze how we achieved a shift towards laparoscopic approach in a large DGH (NHS Lanarkshire).

Methods

Retrospective analysis of 250 cases: 166 cases of total abdominal and 84 cases of total laparoscopic hysterectomies.

Results

Over a period of 16 months we performed 250 total hysterectomies. 2/3 of them (n=166, 66.4%) were TAH and remaining 1/3 (n=84, 33.6%) TLH. To compare, only 21 TLH were performed over a period of 12 months after introduction of TLH in our department in 2012. There were total 3 cases of bowel injury: 1 case during TLH, which required conversion to laparotomy and 2 cases during TAH. There were 2 cases of bladder injury in patients who underwent TAH; none of the TLH was complicated by bladder or ureteric injury. There was only 1 re-admission to the hospital after TLH versus 19 re-admissions post TAH. Majority of the pre-operative histopathology reports were confirmed postoperatively. However, there were nine cases of undiagnosed cancer.

Conclusions

TLH can be safely done with a low and reasonable complication rate, and a shorter hospital stay. As experience is gained the operation time, complication rate and hospital stay are decreased. TLH appears to offer benefits to women requiring total hysterectomy compared to TAH, particularly regarding minor complications, blood loss and hospital stay. With surgical and managerial teamwork, supportive team including anaesthetists, experienced theatre nurses and first assistant we have observed a successful trend towards minimally invasive surgery in a busy district general hospital settings. Although the laparoscopic technique itself requires expertise, the quality of the implementation of the laparoscopic intervention depends not only on the surgeon but also on the surgical environment, including the operating team, and the preoperative and postoperative care. Review of our practice related to TLH shows that it is possible to change the trend towards laparoscopic approach, however it requires dedicated gynaecologists with special interest in laparoscopic surgery, anaesthetist, nursing staff that want to change their practice and further develop their skills. The role of supportive management should not be over empathized. This change has been proven to be more beneficial both to our patients and to our trust.

ES24-0428
Posters

Laparoscopic Cannula Break During Laparoscopic Total Hysterectomy, a Complication Too Far?

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Background

Failure or breakage of laparoscopic equipment is frequently reported to the US Food and Drug Administration (FDA).
However this is not matched by reports in the surgical literature.
Breakage of endoscopic equipment during a procedure defies the purpose of laparoscopy.

Methods

We present a case of laparoscopic umbilical cannula breakage during a major laparoscopic procedure.
A 77 year old woman presented for elective laparoscopic total hysterectomy and bilateral salpingo-oophorectomy. A 10mm umbilical port was placed using a a primary optical trocar system, this followed insufflation with a veress needle.
The procedure itself was uneventful.

Results

At the end of the procedure the umbilical cannula was removed and noted to be broken. A piece of approximately 9mm by 4mm was noted to be missing from the intra-abdominal end of the cannula.
The lost fragment was searched for laparoscopically thus extending the procedure time. An intra-operative x-ray was also performed. The efficacy of this was limited due to the patient habitus, positioning on the operating table and the radio-opacity of the cannula material.
The broken fragment was not located.
The patient was discharged after routine post operative care and was well at her follow up appointment. To date the patient has not suffered any adverse consquences resulting from the broken cannula.

Conclusions

This case demonstrates equipment failure and retained surgical. We assume the cannula material is inert given the absence of sequelae in the patient.

Failure of an essential part of laparoscopic equipment, such as in this case, should be seen the anti-thesis of endoscopic surgery.
It is thus surprising to find that the manufacturers of this equipment do not provide any information on the cannula material and no instruction regarding intra-operative breakage. In addition to this is an absence of reports in the literature.

We present this case to highlight a under-reported laparoscopic complication.
We hope that laparoscopic surgeons and manufacturers of endoscopic equipment can work together to develop some guidance in these circumstances.

ES24-0429
Posters

Impact with Morcellator Hysteroscopic Polypectomy .

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Background

Our goal is to know the impact that has had the introduction of hiteroscopic morcellator in walking regime in our country.

Methods

This is a longitudinal retrospective study of 901 patients diagnosed with endometrial polyp in gynecology area 3 of the Community of Madrid. We analyzed two groups : Group 1 (prior to the introduction of morcellator hysteroscopic polypectomy) and group 2 (with availability ofhysteroscopic polypectomy morcellator) . In both groups we will analyze the differenthysteroscopic procedures performed, the costs assigned to diagnostic and surgical techniques used in each patient and the impact that has led to the incorporation of this new technique in our population
The surgical instruments used for the procedure were a Karl-Storz ® double-way 3.5mmhysteroscope with 0.9% saline solution irrigation and Karl- Storz® scissors, Versapoint®Twizzle 5Fr electrode or Smith & Nephew ® Truclear System morcellator for polypectomy.

Test statistics and p values have been estimated using SPSS 15.0.

Results

We found a significant decrease in operative hysteroscopy in our population from July 2013,time when we began using morcellator in our hysteroscopy unit . This incorporation has solved 21% of cases of hysteroscopic polypectomy outpatient basis , reducing to only 6% the number of patients who will require surgical hysteroscopy to resolve their condition compared to 15%that required it before The costs per patient and procedure turn, have been reduced by nearly 2 %, thus not only saving money on surgical outlay and hospital stay but a significant reduction of time in surgery waiting list.
Hysteroscopic polipectomy with mocellator has meant reducing the number of surgical hysteroscopy performed in our area .While the rest of procedures for performing hysteroscopic polypectomy (scissors , VersaPoint...) maintained similar percentages unchanged for both indications thereof, diagnostic hysteroscopy with morcellator have been able to solve a 9% more cases in which previously the patient should undergo a surgical hysteroscopy with the consequences of joining ASC , surgical expense, waiting list and medical leave that they entail, and therefore a large increase in direct and indirect health costs in these patients.
The impact on our patients is even more beneficial if we think we can solve this pathology in a single diagnostic procedure on an outpatient basis.

Conclusions

The introduction of diagnostic hysteroscopy with morcellator in our population has not only reduced health care costs per patient but the resolution of a gynecological condition in a single diagnostic procedure.

ES24-0430
Posters

Recurrent Parasitic Leiomyoma in a Patient After Total Abdominal Hysterectomy

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Background

The number of "iatrogenic" parasitic leiomyomas is increasing with the use of power morcellators, but "spontaneous" parasitic leiomyomas are still a rare entity. We present a case of recurrent parasitic leiomyoma thirteen years after total abdominal hysterectomy.

Methods

A 34-year-old woman underwent total abdominal hysterectomy for uterine leiomyoma in 2002. The operative record described spontaneous parasitic leiomyoma which seemed to lose their uterine blood supply and parasitize to abdominal wall. The immediate postoperative course was uneventful. She was advised to visit our hospital periodically, but did not show up. Thirteen years later, she presented our hospital with 2-month history of back pain. Transvaginal ultrasonography and CT scan incidentally showed 28mm sized nodular lesion in the Pouch of Douglas. T1-weighed MRI showed multiple nodules with low intensity in the abdominal cavity. Gd enhancement was seen in all of those nodules. Diagnostic laparoscopy was finally performed.

Results

Diagnostic laparoscopy confirmed the presence of three parasitic leiomyomas which attached to the omentum, and one parasitic leiomyoma firmly attached to the Pouch of Douglas. A nodule resection by laparoscopy was performed, and postoperative course was uncomplicated. The final pathology report described benign cellular leiomyoma.

Conclusions

We experienced recurrent parasitic leiomyoma after total abdominal hysterectomy. The exact cause of the recurrence is not know, but at the time of the first operation we should have checked the abdominal cavity more carefully to reduce the risk of recurrent parasitic leiomyoma. The use of laparoscopy might be more helpful when examining the abdominal cavity.

ES24-0433
Posters

Value of Magnetic Resonance Imaging in the Diagnosis of Deep Infiltrating Endometriosis

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Background

The objective is to estimate the accuracy of pelvic magnetic resonance imaging (MRI) in the diagnosis of deeply infiltrating endometriosis (DIE).

Methods

We included all women with clinically suspected DIE, submitted to the Unit of Endometriosis, Service of Obstetrics and Gynecology, Hospital 12 de Octubre, Madrid (Spain), from January 2012 to December 2014. A MRI was performed previous to surgery, where definitive diagnosis was obtained (confirmed by histology).

Results

62 women with clinically suspected DIE were submitted to perform a MRI previous to surgery. In 29 patients DIE was diagnosed by MRI and confirmed by surgical and histological findings. Sensitivity and Specificity of MRI for diagnosis of all sites DIE was 80,8% and 88,5%, respectively. Positive Likelihood ratio was 90,6% and Negative Likelihood ratio 88,5%. Accuracy was 83,9%. False negative cases (7) were all women with a uterosacral nodule less than 2cm, only diagnosed during surgery.

Conclusions

MRI appears good tool for the preoperative staging of DIE, with very satisfactory accuracy. Patients with symptoms and vaginal or rectal exam suggestive of DIE with a surgical indication should be evaluated by pelvic MRI for all possible sites of DIE, in order to correctly plan the proper surgery.

ES24-0434
Posters

Prevention of Adhesions Post (Spontaneous) Abortion (PPAPA Study); A Randomised Controlled Trial Evaluating Hyaluronic Acid.

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Background

Approximately 15-20 % of all clinically recognized pregnancies will end in a miscarriage; a pregnancy that fails to progress before 20-24 weeks of gestation, resulting in the death and expulsion of the embryo or fetus. Only 5 % of all women trying to conceive will experience two miscarriages and only 1% three or more miscarriages. According to the only systematic review and meta-analysis on this topic, women with more than one D&C had significant more IUAs compared to women with only one D&C.

Methods

From December 2012 through April 2015, a multicenter, open-label, randomized controlled trail was performed at one university and seven university-affiliated teaching hospitals in the Netherlands. We aim to study whether application of Hyalobarrier ® Gel Endo after D&C for miscarriage in women with one or more previous miscarriage, reduces the incidence and severity of IUAs. Secondary, we compared short term complications related to the surgical procedure, application of Hyalobarrier ® Gel Endo and hysteroscopic procedure.

All consented women who fulfil all inclusion criteria and did not meet the exclusion criteria were randomized preoperatively. A diagnostic hysteroscopy for the evaluation of the uterine cavity was scheduled 8-12 weeks after the surgical intervention

Results

As the study is still pending , we aim to present the latest preleminary results at the congress.
We aimed to enrol 150 women, considering a drop-out rate of 10-15%.

Conclusions

The latest preleminary results and conclusions will presented at the congress

ES24-0435
Posters

Prophylactic Salpingectomy in Women Undergoing Hysterectomy for Benign Gynaecological Disease - a New Danish Recommendation

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Background

In May 2015 we published a national clinical guideline on hysterectomy for benign gynaecological conditions in cooperation with the Danish Health and Medicines Authority. One of nine investigated areas of interest was whether or not to remove the fallopian tubes in women undergoing hysterectomy for benign gynaecological disease.

Methods

A guideline panel of gynaecologists predefined critical and important outcomes for the assessment. The critical outcomes were defined as *reoperation*, *operations on salpinx*, *fallopian tube cancer*, *ovarian cancer* and *post-operative levels of Anti-Müllerian Hormone (AMH)*. The important outcomes were defined as *post-operative infections*. A search specialist conducted a systematic literature search for publications from 2004 to 2014 in English, Danish, Norwegian and Swedish. In our first search we looked for existing guidelines in the Guidelines International Network, the National Institute for Health and Care Excellence, the National Guideline Clearinghouse, the Scottish Intercollegiate Guidelines Network, the Health Technology Assessment Database, the Cochrane Library, MEDLINE, EMBASE, CINAHL and Danish, Swedish and Norwegian national directorates of health and societies for gynaecology and obstetrics. In our second and third search we looked for systematic reviews and primary literature in MEDLINE and EMBASE. Two independent experts screened the search results. The guideline panel reviewed the literature. The quality of evidence was rated according to the Grading of Recommendations Assessment, Development and Evaluation (GRADE).

Results

The systematic literature search produced 269 hits for existing guidelines, 407 hits for systematic literature and 476 hits for primary literature. One randomized controlled trial (RCT, n = 30) and three observational studies (OS, n = 540, 282, 158) met the inclusion criteria. The quality of evidence for all critical and important outcomes was rated very low. For the critical outcomes evidence from one OS showed fewer *reoperations* (RR 0.33 95% CI 0.1 to 1.06) and *operations on salpinx* (RR 0.15 95% CI 0.01 to 2.46) after hysterectomy with concomitant bilateral salpingectomy compared to hysterectomy without salpingectomy. Evidence from one RCT and one OS showed no differences in the *post-operative levels of AMH* when comparing the two surgical procedures. There were no reports of *fallopian tube cancer* and *ovarian cancer* in the included studies. For the important outcomes evidence from one OS showed fewer *post-operative infections* (RR 0.23 95% CI 0.07 to 0.77) after hysterectomy with concomitant bilateral salpingectomy.

Conclusions

The overall quality of evidence was very low. The evidence showed better outcomes for women undergoing hysterectomy with concomitant bilateral salpingectomy compared to women undergoing hysterectomy without bilateral salpingectomy. Based on the available evidence, the balance between benefits and harms and patient values and preferences, the guideline panel gave a weak recommendation for concomitant bilateral salpingectomy in women undergoing hysterectomy for benign gynaecological disease.

ES24-0437
Posters

Outcomes of Intestinal Resection for Deep Infiltrating Endometriosis

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Background

OBJECTIVE: To describe and analyze results of bowel resection in deep infiltrating endometriosis patients in a tertiary referral center.

Methods

Descriptive retrospective study of 18 patients undergoing bowel resection for deep infiltrating endometriosis at the Endometriosis Multidisciplinary Unit. Hospital 12 de Octubre. Madrid. Spain.

Results

18 patients underwent intestinal resection and anastomosis for bowel endometriosis during the study period. Mean age was 33 years (22-45). Most of patients were nulliparous (66.7%) and had a prior surgery for endometriosis (77.8%). All of them had symptoms related to their condition being dysmenorrhea the most frequent (88.2%) followed by dyspareunia (82.4%) and dyschezia (76.5%). Laparsocopy was performed in 17/18 patients. Preoperatory and intraoperatory approach was carried out both by a gynecologist and a general surgeon. During surgery we found rectovaginal disease in 83.3% of cases. None of the patients had anterior compartment endometriosis. Most of women underwent fertility sparing surgery, but 4/18 required at least hysterectomy. Mean operative time was 373.24 minutes (240-600 minutes). Average of hospital stay was 13.76 days (6-49). No complications were detected in 38.9% of patients and 27.8% had fever. Major complications were anastomosis leakage (1/18), ureteral fistula (1/18) and rectovaginal fistula (1/18).

Conclusions

Intestinal resection and anastomosis for deep infiltrating endometriosis is a feasible laparoscopic technique with none or minor complications in most of cases. Patients should be advice about major complications prior to surgery.

ES24-0441
Posters

Which Radicality is Radical Enough in Patients with Early Cervical Cancer and the Desire to Have Children?

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Background

The mean age of patients diagnosed with cervical cancer decreased within the last years. At the same time women in Germany postpone childbearing in later years. Therefore, fertility-preserving strategies for patients with early cervical cancer have found their way into German guidelines.

The radical trachelectomy (RVT) is a method removing the cervix and surrounding parametrium offered to women with cervical cancer of a tumour size of less than 2cm. RVT is difficult to perform technically and only few centers throughout Europe carry out the operation. Furthermore, the rate of preterm delivery is 50% after RVT. Alternatively patients are treated by tumour removal only (simple conisation (SC)) in many countries in Europe. After conization only 11% of patients will suffer from preterm delivery.

So far, there is no prospective, randomized trial comparing the fertility-preserving strategies.

Methods

SIMRA is prospective randomized controlled trial to compare two fertility preserving operative methods of simple conization and radical trachelectomy in patients with early cervical cancer and the desire to have children.

Patients with early cervical cancer and the desire to have children are included. At first sentinel or pelvic lymphonodectomy by laparoscopy followed by frozen section analysis of the nodes are performed. The patients with negatives nodes will undergo a SC randomized in arm A and a RVT in arm B.

Results

The recurrence rates within the two groups after 5 years observation time and the disease-free survival will be investigated, as well as the rate of preterm delivery, which is allegedly reduced after SC.

Conclusions

We would like to present this trial, which is allready started, but still open for the new participating centers.

ES24-0443
Posters

A Comparative Study of a Novel Approach to Laparoscopic Myomectomy

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Background

To compare the outcome of laparoscopic myomectomy using a novel approach which combined the Modified Palmer's Point, Modified Dillon's Method, The Harmonic Scalpel and Perclot Haemostat. The Modified Palmer's Point was used as the initial entry point as it safer and allows better visualisation of the pelvis, uterus and fibroids. Intra-operative bleeding was reduced by the use of Pitressin. Modified Dillon's method where 20IU of Pitressin was diluted with 200ml instead of 100ml of Normal Saline was employed to reduce the risk of cardiovascular compromise. The Harmonic Scalpel was used to dissect the fibroid out. Lastly, Perclot Haemostatic powder was applied to further enhance haemostasis following closure of the uterus.

Methods

This is a single centre review of pre-menopausal women undergoing laparoscopic myomectomy under one minimal access gynaecological surgeon in a district general hospital using the novel approach described above. A total of 19 cases were performed between November 2013 and May 2015. The data required for comparison was available for 16 cases. The outcomes of 8 cases performed between November 2013 and November 2014 (Group 1) was compared to the outcomes of 8 cases performed between December 2014 and May 2015 (Group 2).

Results

The demographics of the two groups did not differ significantly with the average age of patients in Group 1 being 37.5 years and the average age of patients in Group 2 being 39.0 years. The duration of surgery 180 minutes on average in Group 1 and 151 minutes on average in Group 2. Average Haemoglobin drop was 1.09g/dl in Group 1 and 1.23g/dl in Group 2. No patients in either group required blood transfusion. No intra-abdominal drains were used and there was no vascular or visceral injury.

Conclusions

This novel approach to laparoscopic myomectomy is safe and is associated with lower blood loss. The duration of surgery is shortening as the surgical team improve their skills and execute this novel approach to laparoscopic myomectomy more efficiently.

ES24-0452
Posters

Symptoms That Appear During Childhood and Adolescence That May Suggest Further Occurrence of Endometriosis in Adult Women Should Not Be Ignored.

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Background

- To assess the need of structuring the assistance regarding endometriosis prevention directed to child and teenager girls.
– To highlight the importance of providing clinical assistance for young patients with signs indicating the possibility of endometriosis development.
- To compare the local economic impact caused by elective and urgent hospitalization due to endometriosis.

Methods

– The data here presented were obtained from January 2013 to August 2014; through the System of Hospitalization – Unique System of Health created by the Ministry of Health of Brazil – a record kept concerning all hospitalizations that took place due to numerous conditions.

Results

– In the period comprehended between January 2013 to August 2014, 24.154 hospitalizations of women diagnosed with endometriosis were recorded in Brazil. 237 were girls aging less than 19 years old, and within this group, the largest prevalence was between 15 and 19 years old (201 hospitalizations).17.963 of the total number of hospitalizations were elective and 6.191 were urgent. For girls aging up to 19 years old, 106 were elective and 131 were urgent. The total amount spent for all hospitalizations was one of US$ 6,904,620.84. The largest amount spent due to this condition was related to women aging between 30 and 39 years old, with US$ 1,603,226.10 and 40 to 49 years old, with US$ 3,092,619.11. The total amount spent due to elective hospitalizations was one of US$ 5,280,393.08, and US$ 1,624,227.78 for urgent cases.

Conclusions

– The clinical treatment must aim on minimizing dismenorrhea and pelvic discomfort in a longterm basis. Symptoms that appear during childhood and adolescence that may suggest further occurrence of endometriosis in adult women should not be ignored, but screened and treated. When clinical treatment fails to improve the patient's condition, further investigation becomes necessary, as well as other options of treatment, including surgery, when endometriosis is diagnosed.

ES24-0458
Posters

Laparoscopic Management of an Unrecognized Spontaneous Bilateral Tubal Pregnancy

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Background

Background: In the absence of preceding induction of ovulation, bilateral tubal pregnancies is an extremely unusual occurrence, with a reported incidence of 1 in 725 to 1 in 1580 ectopic pregnancies (which correspond to an occurrence of one per every 200 000 live births). More common are twin pregnancies in the same tube and heterotopic pregnancies. Preoperative diagnosis of bilateral ectopic pregnancy remains a challenge. Serum βhCG estimation is not reliable as the values will be elevated more than that of a single ectopic. Detection with ultrasound scan is almost difficult and commonly failed in achieving a correct preoperative diagnosis. Therefore, the real condition is usually diagnosed at the time of surgery.

Methods

Methods: A 34 year-old nulliparous woman was referred to our Department referring an approximate gestational age of 8 weeks. She complained vaginal bleeding and intermittent abdominal pain. Her past gynecologic history was unremarkable and she used no form of contraception. A physical examination revealed stable vital signs. Her serum level of β-hCG was 4954 IU/L. A transvaginal ultrasound examination revealed no gestational sac in the uterine cavity and a right adnexal mass measuring 23mm x 28mm; poor free fluid was present in the pelvis. The presumptive diagnosis of ectopic pregnancy was made. Having discussed the treatment options, patient preferred the surgical treatment, stating that she would like to preserve the integrity of the tube.

Results

Results: A laparoscopy was performed. At surgery, a small amount of bleeding was noted in both the anterior and posterior cul-de-sacs. At inspection, both tubes contained a mass consistent with ectopic pregnancy. Considering the explicit patient's requests, we performed bilateral linear salpingostomy and a small conceptus was retrieved from both fallopian tube. Pathology confirmed the presumptive diagnosis. To reduce the risk of ectopic residual persistence, a single-dose methotrexate injection (50mg/m2) was administered, with resolution of symptoms and normalization of β-hCG levels.

Conclusions

Conclusions: Spontaneous bilateral ectopic pregnancy is rare and the diagnosis is usually made intra-operatively. Surgeons should always keep in mind the possibility of this phenomenon, and consequently, always identify and closely examine both tubes at the time of surgery. Where future fertility is desired conservation of one or both tubes should be the main objective of the management.

ES24-0459
Posters

"Illuminated Ureteric Stents in Advanced Laparoscopic Surgery Are for Surgeons Who Can't Operate!"; Myth or Reality?

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Background

Ureteric injury is one of the main safety concerns in advanced laparoscopic surgery. The incidence of ureteric injury ranges from 0.8% to 8% depending on the complexity of the case. One of the technicalities of advanced laparoscopic surgery is pelvic side wall dissection and ureterolysis. These skills enable the surgeon to identify and protect the ureter and excise abnormal tissue, such endometriosis, over its course. So, is there a need for an expensive equipment to help the surgeon identify the ureter or are illuminated stents only needed by the surgeons with no advanced laparoscopic skills?!

Methods

There are a number of illuminated stents on the market. We are using the Rocket Uriglow^{R} illuminated stents. They are 1.9 mm in diameter and allow free flow of urine through the ureters and as a result can be used throughout the operation. They are connected to a special light-guide coupler that absorbs more than 90% of the infrared radiation protecting the urothelium from thermal damage. They cost 104£/pair.

Results

We have been using the illuminated ureteric stents 'Rocket UriglowR' in complex laparoscopic cases for 17 years. Our main indications for the use of illuminated stents are: a) to aid safe ureteric dissection from the pelvic side wall and b) to minimise the need of ureteric dissection in some cases. Cases in which we have used the stents include stage-4 endometriosis, excision of ureteric endometriotic nodules and big fibroid uteri where it is not possible to visualise the ureters on the pelvic side wall adequately. On average we use the stents in 45 complex cases a year. From the surgeons recollection we have never had a ureteric injury in the cases where illuminated stents have been used. Our audit data from the last 2 years, indicates we have used the illuminated stents in 96 cases and again have had no ureteric injury and no post-operative urinary tract infections. The majority of patients experience transient haematuria but this is short-lived and has no detrimental consequence.

Conclusions

We conclude that illuminated ureteric stents do have a role in advanced laparoscopic surgery even for the most highly skilled of surgeons. They add an extra dimension to patients' safety by delineating clearly the course of the ureter allowing the surgeon, no matter how experienced, to confidently and safely proceed with ureteric dissection or with the dissection of the tissues overlying the ureters. In addition, they can shorten operating time and therefore make their use more cost-effective. Their insertion through routine cystoscopy takes an average of 3-5 minutes and it is a skill that it is easily learnt. There use, only by those "who can't operate" is a myth.

ES24-0460
Posters

Laparoscopic Suturing with a New 5 Mm Motorized Reusable Needle Holder

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Background

Laparoscopic suturing has a long learning curve for some residents and fellows, and can also be. challenging in some procedures such as laparoscopic myomectomy, laparoscopic vaginal suturing after hysterectomy or pelvic floor repair.

Methods

We present JAIMY, a new 5 mm reusable motorized articulated laparoscopic needle holder, with seven degrees of freedom, which is grasping, retracting, mobilizing, dissecting, and suturing tissues and vessels under endoscopic visualization during surgical procedures.

Results

We present the results of a survey on residents and fellows using for the first time JAIMY, compared to classical needle holders, with different exercises of suturing including single knots and running. Three suturing tasks were performed with both Jaimy_ and a classic needle holder (NH): task 1: Peg-Board; task 2: hexagonal suture; task 3: frontal suture. We also present our results comparing the time needed for suturing a myomectomy scar and laparoscopic vaginal suturing . In both laparoscopic lab and the OR JAIMY shortened the learning curve of laparoscopic suturing and duration of operations.

Conclusions

Using JAIMY a new motorized reusable needle holder the surgeon activates 3 movements simultaneously, total flexion of the shaft, 360° unlimited rotation of the end effector, opening/closing of the jaws shortening the learning curve of laparoscopic suturing and the duration of laparoscopic myomectomy and total laparoscopic hysterectomy.

ES24-0461
Posters

Conversion of Abdominal Hysterectomy to Laparoscopic Hysterectomy - the Reverse Paradigm. 5 Year Experience of a Large UK District Teaching Hospital Between 2010/11 and 2014/15.

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Background

The EVALUATE study previously reported that for benign conditions and small moderatety enlarged uteri that vaginal hysterectomy was preferable to abdominal or laparoscopic hysterectomy. And that laparoscopic hysterectomy is preferable to abdominal.
We have previously reported (RCOG World Congress 2015) that <8% of hysterectomies performed in our unit in a sample size of 327 of 1258 hysterectomies performed in our unit between 1/1/2010 and 31/12/14 would have been eligible for the EVALUATE study. We postulate that this is as a consequence of less invasive treatments such as endometrial ablation and the Mirena IUS.
In the UK, despite evidence, the majority of hysterectomies are still performed abdominally.
We describe the difference that a cultural attitude to laparoscopic surgery has had in reducing our abdominal hysterctomy rates to under 10% .

Methods

Review of all hysterectomies performed at Wirral University Teaching Hospital 1/1/2010 - 31/12/2010 and 1/1/2014 - 31/12/2014 by type. There were no exclusions .
Hysterectomies performed for ovarian cancer, cervical cancer and high grade endometrial cancer are performed in the Regional Cancer Centre.

Results

Results will show an extremely low abdominal hysterectomy rate which has further fallen within this 5 year period as a consequence of training and education within the unit.
The unit has an inclusive approach towards safe laparoscopic surgery with an ethos not to perform abdominal procedures wherever possible.
With retirements, new appointments, and education and traing we present results which we believe are unparalleled in any other UK large hospital but demonstrate that with commitment support and education we believe this is possible anywhere.

Conclusions

Abdominal hysterectomy is in many cases an unnecessary major operation which can be succesfully and safely achieved through minimal access surgery in almost all cases .

ES24-0462
Posters

The Effect of Seniority of Surgeon On Operating Time for Emergency Laparoscopic Salpingectomy.

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Background

A central benchmark of laparoscopic training in the UK is competence in laparoscopic salpingectomy for ectopic pregnancy. We assessed this training by analysis of surgical performance as determined by operating time.

Methods

We analysed the medical records of patients diagnosed with ectopic pregnancy. We referenced these with early pregnancy unit data and records in the operating department.
We included those women who had a diagnosis of suspected ectopic pregnancy on ultrasound scan and subsequently underwent emergency laparoscopic salpingectomy. We collected data on grade of leading surgeon, time of surgery and surgical length in time.

Results

There were 68 cases with data for analysis, of these there was no information on length of surgery for 10 cases.
The lead surgeon was consultant level in just over half the cases and a consultant grade surgeon performed out of hours surgery on 85% of occasions. Of trainee grades just 11 cases were performed by a junior trainee and in all of these cases the assistant was a consultant.
Average consultant grade operating time was 63 minutes. Average operating time for trainee grades was 72 minutes.
Surgical time was divided into two categories, less than or more than 60 minutes.
In the "less than 60 minutes" time category, the range of times were 35 minutes - 60 minutes. A consultant was lead surgeon in 60% of cases in this category.
In the "more than 60 minutes" category the range of times were 65 - 137 minutes. A trainee was lead surgeon in 64% of cases in this category.

Conclusions

The findings of this study suggest that the more senior the grade of lead surgeon the shorter the operating time. This would be expected in terms of time in the specialty conferring increased experience.

Given the average operating times between consultant as lead surgeon and trainee differ by just nine minutes this may suggest that training in this procedure is conducive to improving operating time.

ES24-0466
Posters

Total Laparoscopic Hysterectomy - Starting From Zero

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Background

Hysterectomy is one of the most commonly performed surgical procedures. Total Laparoscopic hysterectomy (TLH) may offer a minimal blood loss, short hospital stay, and be practicable in most women with minimal risk of complications. The aim of this work was to evaluate the progress in an new-growing Gynecologic Unit on what concerns TLH.

Methods

Retrospective study of all TLH performed in the first three-years of activity of a Gynecological Unit (Jan 2012 – Dec 2014). Demographic, clinical and surgical variables were studied including age, race, body mass index (BMI), parity, previous abdominal surgery, indication for TLH and associated procedures, time of surgery, estimated blood loss, uterine weight, intra and post-operative complications and reintervention.The sample was splited in half and two groups were formed: A – first half; B – last half. The upnamed variables were compared between the two goups. Statistical analysis used *SPSS 22.0* ($p<0.05$).

Results

Two hundred TLH were perfomed. Group A and group B included one hundred procedures each. Overall mean age was 50±9 years, BMI 27±5; 88.6% of the women were caucasian, 8% nuliparous and 26.5% in menopause; 60.5% had no previous abdominal surgery. Symptomatic leiomyoma was the most frequent indication for TLH (40.5%), followed by adenomiosis (12%) and endometrial hyperplasia (10%). Mean operative time was 151±40 minutes with estimated blood loss of 169±116ml. Five cases had to be converted to laparotomy(2.5%). Thirteen procedures were complicated either intra (5;2.5%) or post-surgery (8;4%). Five cases of hemorrhage from the vaginal cuff were recorded. Two women had to be reoperated. The most frequent intra-operative complication was bladder laceration(n=3). Comparing group A (TLH 1-100) with group B (TLH 101-200) no differences were found in age, BMI, gynecologic or obstetric history. The indications for TLH were similar thoughout the years. However associated interventions, namely bilateral salpingectomy/anexectomy, ere more frequent in group B (62% Vs 95%;p=0.001). Although post-operatory complications were more frequent in group A it did not reach statistical significance (5% Vs 3%;p=0.47). Operative time, uterine weight, lengh of hospitalization and readmition were similar between the two grops. Blood loss was smaller in group B (p= 0.02) as well as the convertion to laparotomy (no convertions in the last one hundred procedures;p=0.024).

Conclusions

In our study grownning experience was associated with lower blood loss and less need to convert to laparotomy; There seams to be a tendency towards less post-operative complications – a larger sample is needed. The recent indication for prophilatic salpingectomy may explain the higher rate of associated procedures in group B.To improve results and shorten the learning curve we consider experience is cornerstone. Thus, we defend a high volume of surgeries as well as the presence of senior surgeons as a way to improve technical skills and achieve better outcomes.

ES24-0469
Posters

Literature Review of Outcomes and Prevalence and Case Report of Leiomyosarcomas and Non-typical Uterine Smooth Muscle Leiomyoma Tumors Treated with Uterine Artery Embolization

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Background

To describe the early and late outcomes of uterine smooth muscle tumors that are either malignant or have the potential for recurrence (MRUSMTs) after uterine artery embolization (UAE). .

Methods

Literature review of MRUSMTs in case reports and in studies on patient outcome after UAE and reports of one case of leiomyosarcoma (LMS) and 2 cases of bizarre leiomyoma (BL) after UAE. Setting at University hospital Skejby.
Measure(s) and clinical outcome of UAE and prevalence of MRUSMT

Results

In the review of clinical trials, six cases of sarcomas were reported after UAE treatment in 8084 procedures. One of the six sarcoma cases and one case of intravenous leiomyomatosis occurred more than two years after the UAE. Thirteen cases of LMS, two cases of BL and no cases of MRUSMTs after UAE were identified in the published case reports. Six of the thirteen patients with sarcomas exhibited a good initial clinical response, but their symptoms relapsed after six months. UAE had a failed outcome in the two BL cases.

Conclusions

MRUSMTs are rarely treated using UAE; late malignant transformation is infrequent but may be underreported. UAE treatment of leiomyosarcomas does not seem to spread the disease, but this approach may impair prognosis by delaying diagnosis. Tumors with low malignant potential may initially exhibit volume reduction and a good clinical response, but these tumors may exhibit persistent enhancement with contrast-enhanced magnetic resonance imaging (MRI). Special attention is required in cases with or without a limited response to UAE.

ES24-0482
Posters

Laparoscopic Approach to Gynaecological Emergencies

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Background

The management of women presenting with acute gynaecologic complaints is an everyday occurence in most emergency departments. Laparoscopy is increasingly being used in the diagnosis and treatment of the gynaecologic surgical emergencies.

The authors present three illustrative case reports of some of the most frequent gynaecological emergencies, referring to clinical features, diagnosis and focusing on the use of minimally invasive surgery, as the efficient and feasible tool that lead to full resolution in every case.

Methods

Presentation of three case reports who underwent laparoscopic surgery in the Department in 2014. Data collected includes demographic information, clinical history and examination, laboratory and imaging workup, besides pre-operative, surgical and post-operative information.

Results

One of the cases was an adnexal torsion, one was a pelvic abcess, and the other was an ectopic pregnancy. Careful clinical assessment and complementary investigation were performed in all cases. The clinical features were mainly abdominal pain and vaginal bleeding. Pelvic exam consistenly revealed abdominal tenderness. In all patients the diagnosis was suspected in the initial approach and intervention depended mainly on clinical grounds. Timely surgical treatment was performed for all cases. The most common non-gynaecological differential diagnosis in these cases was acute appendicitis. In two of the cases the gynaecological exam and ultrasound study were not fully disclosing and laparoscopical approach was decided. In the other case the ultrasound showed a right adnexal mass and an haemoperitoneum. In all case reports the laparoscopic treatment was successful, without any complications per-operatively.

Conclusions

The case reports reviewed here demonstrate that laparoscopic surgery for nearly all surgical gynaecological emergencies is not only feasible, but safe and effective. Minimally invasive approach appears to be the most appropriate route, particularly for women of childbaring age, because of the associated high rate of simulated appendicitis, reduced blood loss and improved fertility preservation. Its added value in reduced morbidity, shorter hospital stay and cosmesis has helped to estabilish its place in contemporary and future gynaecologic practice. Widespread use of minimally invasive surgery for surgical gynaecology emergencies is warranted.

ES24-0484
Posters

Laparoscopic Removal of Cervical Cerclage with Isthmocele Repair and Repeat Cerclage. Should the Caesarean Section Incision Be Made Higher in These Patients?

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Background

We present a complex case of a caesarean section (CS) isthmocele in a patient who had undergone a previous laparoscopic cervical cerclage.
KW is a 35 year old female with a poor obstetric history who was referred to Birmingham Women's Hospital for consideration of laparoscopic cervical cerclage for management of cervical incompetence. Following counselling she opted to have the procedure which was conducted without complication. She successfully conceived and In view of her cerclage was planning to have a CS delivery.
Her CS was scheduled at 39 weeks at her local hospital however, she sadly experienced an intra-uterine death at 38 weeks. In view of the cerclage she was counselled and a CS performed. Subsequently she experienced difficulty conceiving and opted to undergo assisted reproduction. Sadly these attempts were unsuccessful and investigations revealed a CS isthmocele. A hysteroscopy was also performed at which the suture material used to perform the cerclage was visible at the lateral margins of the isthmocele.
KW was again counselled regarding the options and opted to undergo laparoscopic removal of the suture with isthmocele repair and insertion of a new cervical cerclage.

Methods

A four port laparoscopy was performed with a 10mm umbilical port, two 5mm flank ports and one 5mm suprapubic port. The patient was in the Trendelenburg position and a hysteroscopy was performed concurrently. Bipolar forceps and monopolar forceps were used to perform the dissection and removal of the existing cerclage. The isthmocele was then delineated and excised before being repaired in layers. MERSILENE® tape was used to perform the cerclage with nn Endo Close™ device being used to draw the MERSILENE® tape through the parametrial region (at the level of the internal Os) and the suture tied anteriorly. Whilst the knot was being tied a Spackman cannula is place within the uterine cavity. A urinary catheter was left in situ until the following morning and the patient discharged home.

Results

The patient had no immediate complications and we are awaiting news of her success with conceiving.

Conclusions

Laparoscopic cerclage and laparoscopic isthmocele repair are both challenging procedures but with the correct training can be conducted safely affording the patient the obvious benefits of laparoscopic surgery. The need to combine these procedures is likely to be rare but given that patients that have undergone a cerclage are usually delivered by CS, it may become more common. Although the exact cause of isthmocele formation is the subject of much debate, the authors feel that in cases where patients have undergone a cervical cerclage the subsequent CS may be better performed by a high transverse lower segment incision. Doing so may improve the vascularity at the site of the incision and subsequent healing.

ES24-0494
Posters

None or Minimal Anesthesia in Hysteroscopy : Possible for Every Transcervical Surgery?

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Background

The use of local anesthetic techniques in hysteroscopy are well known for decades. In the diagnostic procedures exist an evidence of a good toleration without any anesthesia in more than 90% of cases.

Methods
Results

A major advance in terms of the hysteroscopic procedures is the ¨see and treat¨ approach - it is now possible to treat ¨small¨ pathology concurrently. The use of latest hysteroscopic techniques with a mini-resectoscope and minimal anesthesia, allowing safe diagnostic-operative office hysteroscopic procedures. However large diamater resectoscopy seems to be more complicated in the technique, pain management and patient's compliance, many described experiences has proven the fesability of the intrauterine surgery under minimal and multimodal anesthesia.

Conclusions

The last years experiences proves that management and logistics of whole procedure is essential. It starts from the pre operative announce to the post operative care, and involves all the medical and paramedical staff.

ES24-0497
Posters

The Impact of the Presence of a Colorectal Surgeon On the Management and Outcomes of Surgery for Rectal Endometriosis.

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Background

For women with extensive endometriosis involving the bowel, multidisciplinary management including a colorectal surgical opinion has become the standard of care. This study examines how the presence of a colorectal surgeon influences the surgical management and post-operative colorectal symptomatology of rectal endometriosis.

Methods

The BSGE Endometriosis Centre Database was examined for patients with rectal endometriosis. Patients were divided into two groups: 1) those who had received involvement from a colorectal surgeon in their management 2) those that had not. Within each group, the following data was examined:
The involvement of any surgery to the bowel
Use of specific intra-operative tools/techniques (monopolar diathermy, bipolar diathermy, ultrasound scalpel, scissors, ligasure and dissection)
The patient's self-assessment of their symptoms, quality of life and effect on daily activities post treatment.
Fisher's Exact Test was used to compare outcomes with and without a colorectal surgeon present.

Results

426 patients were present in the database, of which 106 (24.9%) had rectal involvement and were therefore included in this study. Our analysis revealed that teams involving a colorectal surgeon were significantly more likely to perform surgery to the bowel (39/40 (97.5%) vs. 45/54 (83.3%) $p<0.05$). Teams involving a colorectal surgeon were significantly less likely to use bipolar diathermy (2/42 (4.8%) vs. 12/62 (19.5%), $p<0.05$). Despite these findings, there was no significant difference between the two groups in patients' self-assessment of their symptoms and quality of life after treatment.

Conclusions

The presence of a colorectal surgeon in rectal endometriosis surgery significantly alters surgical treatment, however the ultimate impact of these differences on a patient's overall outcomes remains unclear. It is probable that colorectal surgical involvement is reserved for more extensive cases of rectal endometriosis, and lack of use of bipolar diathermy may represent a need to avoid administration of electrosurgical energy in proximity to the bowel.

ES24-0499
Posters

Taking into Agenda Primary Dysmenorrhea in Patients with Deep Infiltrating Endometriosis

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Background

Knowledge of adolescent period history can identify markers associated with deep infiltrating endometriosis (DIE). Recently, perimenarcheal primary dysmenorrhea (DM) - defined as menstrual pain in absence of detectable underlying pathology, is getting increasingly into the focus of research. However, its impact on endometriosis related painful symptomatology is poorly understood. Within the framework of an exploratory clinical research we sought to investigate the relationship, in any, between perimenarcheal primary DM and later symptomatic manifestations in patients with rectosigmoid DIE.

Methods

A case-control study was conducted on a number of 80 patients undergoing laparoscopic surgery due to severe DM by rectosigmoid DIE from 2012 to 2014. General demographic data, DM history, pelvic pain scores (VAS) and aspects of therapeutic management (in particular combined oral contraceptives/COC) from cases with chronic primary DM (n=36) at perimenarche were compared to those without painful menstruation in adolescence (n=54), referred as controls. Data was collected using questionnaire survey and hospital record analysis. Statistical analysis was performed using Student'*t* and Mann-Whitney U test comparing the distributions of two unmatched groups, while survival analysis was fulfilled by Gehan-Breslow-Wilcoxon test. All calculations were made with GraphPad Prism 6.0 Software.

Results

The overall patient population suffered from complex endometriosis cases with multiple DIE lesions (number of DIE nodules/woman 2.14±1.3; average size of rectosigmoid DIE nodules 2.45±1.27cm) accompanied by associating endometriomas (number of endometriomas/woman 1.11±0.07) and peritoneal endometriosis. Both groups were comparable in terms of general demographic parameters, clinical stage of disease (rAFS) and age at menarche. 66.66% of case group experienced moderate intensity functional DM at perimenarche, while other patients in this group were affected by severe or mild pain (both 17.14%), -the average DM severity(VAS)/group was 4.95±1.8, being in sharp contrast with the control group (p=0.0002). In turn, DM severity at tissue harvesting (average DM severity(VAS) 9.5±0.5, p=0.98) was similar between groups, serving as main operative indication. Interestingly, women with painful menarche experienced the onset of severe DM significantly sooner compared to controls (p=0.02). On one hand, a 3 years shorter time span between the first period and the beginning of severe pain (cases 12.55±1.22 years, controls 15.9±2.3 years) translated into a comparably younger age at tissue harvesting in the case group (p=0.04). On the other hand, DM in this group seemed to be refractory (p=0.099) for continuous COC administration (>5 years) while women in control group benefited by significant pain alleviation (p=0.022). The age of COC initiation (20.3±3.4 years), duration (8.5±2.00 years) and free intervals from last COC use did not differ between groups.

Conclusions

Our results suggest that considering functional DM at perimenarche might be important in the shaping of optimal therapeutic management. The exact mechanism underlying urging symptom worsening and therapeutic ineffectiveness needs further investigation.

ES24-0508
Posters

Laparoscopic Hysterectomy - Four Year Experience of a Tertiary Portuguese Center

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Background

Hysterectomy is the most common gynecological operation after Caesarean section and the laparoscopic access to uterus removal is one of the contemporary methods showing slow but steady growth in time. We present a study were we critically review the indications, operative time, outcomes,complications, and sequelae of laparoscopic hysterectomy procedures in a Portuguese Tertiary Center.

Methods

Descriptive retrospective study of 292 cases of total laparoscopic hysterectomy performed in our center between January 2010 and April 2015. Information on patient characteristics, surgical indications, clinicopathological factors, operative time, surgical complications and sequelae were obtained and analysed.

Results

The study included 292 patients with an average age of 49.2 years (28- 76 years). The median body mass index was 24.56 kg/m2 (±2,85 kg/m2). The most common indication for hysterectomy was abnormal uterine bleeding (46.5%) followed by symptomatic leiomyomas (38.2%) and pelvic organ prolapses (6,4%). The mean operative time was 65 minutes (±19 minutes). The need to convert to laparotomy or vaginal hysterectomy was registered in 1,4% of surgeries and post-operative complications occurred in 2,0% of patients. The average length of hospital stay was 3 days (2-10 days). None of the patients who completed surgery and follow up had long term sequelae.

Conclusions

Laparoscopic hysterectomy is a reasonable substitute for abdominal hysterectomy. It is a safe procedure, even when performed by a variety of gynecologists with different skill levels, and its adoption can reduce the hospitalization duration, complication rates, postoperative pain and patient recuperation with great long term outcomes. With the adoption of the laparoscopic hysterectomy technique by our center, an increasing number of patients are benefitting from the advantages of laparoscopy.

ES24-0510
Posters

Laparoscopic Subtotal Hysterectomy (LASH): Safe, Reproducible and Effective

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Background

Majority of hysterectomies are performed for benign conditions ***(Einarsson JI, et al, 2009).***

Methods

Data was collected retrospectively from 143 of women who underwent LASH from August 2008 - November 2014 for various benign indications with normal cervical smears and endometruim .

Initially one consultant gynecologist performed the procedure and training others and improved learning curve, 4 consultants are now independently performing the procedure.

We introduced disposable morcellation and 2 patients towards the end of the study had morecellation in bag in a way to comply with the recent FDA safety advice and it seems that operating time is getting better with learning curve and better bags.

Results

Majority (78%) of LASH were performed for abnormal uterine bleeding where 88.3% had failed medical treatment, 17% were performed for c*hronic pelvic pain.* The *mean operating time was 90 min and the mean blood loss was 136 ml. For LASH 3.4% had wound , only one pelvic hematoma, one ureteric oedema, one utrovaginal fistula, one hernia from lateral port site and one had scar pain at morcellator port. No conversion to laparotomy, no blood transfusion, no DVT and no return to theatre which appears to be comparable to hysterectomies complication rate.*
Average theatre time was 70 minutes for open subtotal hysterectomy and 90 min for LASH. The average running theatre per minute is £3.08 . Instruments for LASH cost £1156 versus £200 for hysterectomy. The average hospital stay for LASH was 1.7 nights versus 3.7 nights for open. Average cost for one night stay in hospital is £486. Overall cost of LASH was £2259.2 versus £2213.8 for hysterectomy which obviously comparable with quick recovery and better patient satisfaction for LASH.

Conclusions

LASH appears to be safe, reproducible, cost effective with better recovery and less complication rates.

ES24-0513
Posters

A Patient Information Leaflet for Outpatient Hysteroscopic Examination: a Proposed Generic Leaflet.

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Background

There is good evidence that patients who receive written information about a procedure prior to attending a hospital appointment experience less anxiety. However, the content of the patient information leaflet (PIL) is important, as well as how the information is presented, and considerable effort is required when writing such leaflets to ensure that they are comprehensive and can be understood.

Our outpatient hysteroscopy leaflet was due for revision and a new version was produced. However, following review by patient representatives it was clear that it was still inadequate. For example, it was insufficiently clear that patients have a choice between outpatient and inpatient examination and investigation, and some of details about the stages in the outpatient investigation lacked clarity. It was also recognised that including accurate information about possible adverse events, especially the severity of pain that may occur, was important.

Our aim was to produce a generic leaflet that was both comprehensive and clear and available to all units in the UK as a template on the BSGE website

Methods

With the assistance of patient representatives, and by comparison of our leaflet with those from other units, we developed a PIL that was more patient-friendly. We also ensured that it met the ‘Crystal Mark’ plain English criteria.

A draft version of the PIL was piloted with patients in Sheffield and 30 patients were asked to complete a short questionnaire to investigate their response and to add any other comments.

Results

The patients were asked about the clarity of the PIL, whether it was of an appropriate length, and whether it provided them with the information that they wished to know and if it was helpful in reducing any anxiety they may have felt about attending the clinic. Free text comments were collected and analysed and the PIL modified in the light of the responses. The results of the questionnaire will be presented, along with a final version of the PIL.

Conclusions

Patient information leaflets are important, particularly for outpatient procedures. It is important to involve patients in their development and to ensure that they are sufficiently comprehensive and clear.

ES24-0514
Posters

Bowel Resection for Small Bowel Obstruction in a Pregnant Woman with Alcoholic Pancreatitis

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Background

To present a case of small intestinal obstruction in pregnancy which was complicated by alcoholic chronic pancreatitis. Intestinal obstruction in pregnancy is rare. However the mortality rate is higher during pregnancy than in the general population and applies to fetal as well as maternal survival. The rarity of the problem, delay in diagnosis, anxiety over radiological examination in pregnant women, worry over laparoscopy/ laparotomy in pregnant women, all result in delay in instituting definite treatment and contribute to the morbidity. Major causes of intestinal obstruction in the pregnant women include adhesions, volvulus and intussusceptions.

Methods

A 31 year old lady in her second unplanned pregnancy (conceived on pills) was admitted via A&E at 11+ weeks gestation with history of abdominal pain and recurrent vomiting. There was history of alcohol abuse and she underwent laparotomy and partial pancreatectomy in 2010 for pancreatitis. She was on citalopram for history of postnatal depression. She was started on IV fluids, antiemetics, pain killers and IV antibiotics with a provisional diagnosis of UTI with positive urine culture. She was reviewed by the surgical team with normal scan findings & planned to give her lactulose & glycerine suppository. She continued to have abdominal pain and vomiting.

Repeat scan showed dilated bowel loops of non-peristaltic bowel consistent with ileus and normal appendix. As she was tender in right iliac fossa with high CRP, she was consented for laparoscopy and proceeds to laparotomy with a provisional diagnosis of appendicitis. Laparoscopy showed normal appendix with free fluid in abdominal cavity. Dilated proximal small bowel loops with collapsed dusky distal bowel loops with omental adhesion. Roux-en-Y anastomosis was also recognised in small bowel related to her previous pancreatic surgery. Decision was taken to remove 15 cm necrotic small bowel along with omental band & side to side small bowel anastomosis was done. The abdominal cavity cleaned with saline followed by a drain left in situ. She went home day 8 & was reviewed in ANC at 16 weeks.

Results

As intestinal obstruction is rare in pregnancy many clinicians are reluctant to perform surgical intervention during pregnancy in the absence of positive radiological findings. However a delay in diagnosis may be related to poor maternal and fetal outcome. This patient was a high risk for intestinal obstruction having had previous abdominal surgery for pancreatitis; however there was still a delay in making a decision to perform surgery.

Conclusions

Clinician should be aware of intestinal obstruction as a rare presentation for recurrent vomiting in pregnancy & application of established principles in the management of intestinal obstruction even when it occurs in pregnancy and puerperium might help to improve the results of a multidisciplinary management and reduce the morbidity and mortality to both mother and baby.

ES24-0519
Posters

Are Multiple Myomectomies Safe? A Comparison of Peri-operative Outcomes at Laparoscopy

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Background

To compare peri-operative outcomes of laparoscopic myomectomy (LM) for the management of single vs. multiple uterine fibroids.

Methods

Retrospective cohort study of 217 LM performed between 2005 and 2013 was carried out at a London teaching hospital. Intra-operative and peri-operatives outcomes were compared between single and multiple LM. Chi-square was used to compare categorical, and Mann-Whitney for continuous variables, with significance at $p<0.05$.

Results

Length of surgery was significantly greater with multiple myomectomy compared to single myomectomy (128.6 vs 80.5, $p<0.0001$). Multiple myomectomy was associated with increased weight of fibroids (224.1 vs 184.6 $p= 0.0261$), a greater estimated blood loss (333.3 vs 222.8, $p <0.0001$) and an increased use of surgical drains (0.65 vs 0.41, $p = 0.0006$). There was no statistical difference between the rate of surgical complications, drop in haemoglobin, length of hospital stay, resolution of symptoms or patient satisfaction.

Conclusions

Laparoscopic myomectomy for multiple fibroids can be complex and technically difficult surgery. Multiple myomectomies result in n increase in length of surgery, blood loss and requirement of intraoperative drains. However, this does not result in increased length of hospital stay, need for blood transfusion or increased complication. The patient satisfaction and resolution of symptoms is comparable in both groups, suggesting that laparoscopic myomectomy is an appropriate option of management for multiple uterine fibroids.

ES24-0520
Posters

Laparoscopic Total Hysterectomy for a 4.1 Kg Fibroid Uterus, Largest Uterus Removed by Minimal Access Surgery

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Background

We report the largest uterus reported so far in the literature which has been removed with laparoscopic approach. Appropriate use of advance surgical skills can benefit patients and enhance their recovery and improve patient satisfaction. Use of different types of morcellation is described.

Methods

Case report of patient presenting with heavy periods, pressure symptoms due to enlarged uterus measuring as full term pregnancy. Pre-operative assessment and intraoperative management including positioning and anaesthetic considerations is described. Surgical technique of hysterectomy and morcellation methods are described.

Results

Procedure successfully completed with minimal access approach and patient made uncomplicated recovery. Histology confirmed benign fibroid uterus. Radiological images which support the extend of the fibroid size.

Conclusions

Carefully selection of a cases and advanced surgical and anaesthetics skills can improve patient outcomes and satisfaction.

ES24-0524
Posters

Comparison of Peri-operative Outcomes at Laparoscopic Myomectomy over a Ten-year Period at a Single Centre.

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Background

Laparoscopic myomectomy (LM) is an organ preserving technique and it has been described as the gold standard for surgical management of fibroids. Our aim was to review LM over a ten year period, including peri-operative outcomes and resolution of symptoms/patients satisfaction.

Methods

Retrospective cohort study of 217 consecutive single surgeon LM performed at a London teaching hospital over a ten year period. A comparison was made between those cases performed in the first half of the data collection (first 5 years) with those performed in the second half. Baseline characteristics were reported using descriptive statistics. Chi-square was used to compare categorical and Mann-Whitney for continuous variables between two groups, with significance at $p<0.05$.

Results

The demographics of the two cohorts of patients did not differ significantly. On clinical examination the size of fibroids selected were significantly larger in the second half of the study(13.26 vs 14.73, $p=0.0089$). There was no significant difference in the duration of surgery, number of fibroids removed and estimated blood loss over the ten years. There was an increase in the number of drains left in situ(0.44 vs 0.70, $p<0.0001$) and a significant decline in the number of complications (0.09 vs 0.02 $p= 0.0156$). In patient stay was reduced over time (2.40 vs 1.67, $p<0.0001$) whilst the resolution of patients symptoms improved (0.99 vs0.99, $p=0.0014$).

Conclusions

Our data shows that surgical performance of laparoscopic myomectomy improves over time and this is evidenced by the increase in case complexity, a decline in complications and length of hospital stay. It also shows as surgical experience is gained, there is greater patient experience of symptoms resolution.

ES24-0525
Posters

Management of Pregnancy of Unknown Location Following Negative Laparosocpy.

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Background

DIagnosis and management of pregnancy of unknown location (PUL) represents a challenging situation. A negative laparoscopy creates a very difficult and frustrating situation to both the medical team and the patients. It is essential in such cases to carefully and comprehensively discuss the situation and the progress of the patient and review all the findings of the previous tests. Multidisciplinary team discussion is very crucial in such cases.

Methods

This is a retrospective case review of all cases with negative laparoscopy following a diagnosis of PUL or query ectopic pregnancy. All case noted were reviewed over a period of one year and analyzed for the sonographic findings, B-HCG levels, serum progesterone levels and working diagnosis. Also data was collected on the indication of laparosocpy, level of experience of laparoscopic surgeon and image review. Management options following negative laparoscopy, including methotrexate, evacuation of products of conception or repeat laparoscopy. Analysis of causes of negative laparoscopy was reviewed and presented in our study.

Results

Several findings and lessons were learnt from this study, including the failure of ultrasound to accurately provide a clear report of diagnosis of location of pregnancy. Also, involvement of experienced consultants with special interest in early pregnancy and team discussions. We found that there was inconsistency in management of those cases and that review of the scan or the scan images was the single most important predictor to good outcome and accurate final diagnosis.

Conclusions

This study highlights the importance of team communication between sonographers and the medical team in such cases and importance to correlate the imaging with the clinical situation. It is also important to involve the patients very early in the discussions and the uncertainty of the diagnosis and the limitations of the diagnostic methods. Also this study revealed that a good proportion of PUL patients were early non-viable pregnancies and the place for endometrial biopsy or evacuation before considering methotrexate was highlighted.

ES24-0526
Posters

Triad of Symptoms for the Prediction of Major Haemorrhage in Ectopic Pregnancy.

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Background

Introduction

Ectopic pregnancy (EP) occurs in up to 2% of pregnancies and it remains one of the commonest causes of maternal mortality in the first trimester. The association between presenting symptoms and quantity of intra-peritoneal bleeding has not been assessed.

Methods

Prospective audit of all women requiring surgery for EP over a 5-year period at a single centre was undertaken. Secondary analysis of presenting symptoms and blood loss documented on the operation note was performed. We analysed the association of presenting symptoms with blood loss at surgery. Basleline characteristics were reported using descriptive statistics and Mann-Whitney was used to compare continuous variables between two groups, significance at $p<0.05$.

Results

318 women underwent surgery for EP during the 5 year study period (Table. 1). There were no difference in age or weeks amenorrhoea when compared with the presenting symptoms. Median blood reported was 425ml (range 0- 4200ml). The triad of vomiting, shoulder-tip pain and syncope were associated with significantly increased blood loss at surgery. There were not associated with increased blood loss when independent of the other two. Shoulder tip pain and syncope combined (n=12, 3.8%, median EBL 1520mls (0-2800), $p<0.0001$)and the triad combined (n=8, 2.5%, median EBL 2562mls (500-4000), $p<0.001$) were associated with significantly increased blood loss.

Conclusions

Women with suspected or confirmed ectopic pregnancy with vomiting, shoulder-tip pain and/or syncope are at significantly higher risk of major haemorrhage. Their association with increased blood loss may not be appreciated by clinicians. Emphasis should return to obtaining a thorough history when assessing an EP and anticipating the need for blood products and emergency theatre time.

ES24-0544
Posters

Urinary Tract Endometriosis: A Silent Case of Renal Loss

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Background

Endometriosis is a chronic debilitating disease presenting with a wide range of symptoms and effecting 5-15% of women. It is a complex multifactorial disease, characterized by the presence of endometrial tissues and glands outside the uterine cavity. Although more typically confined to the pelvis, deep infiltrating endometriosis can have a multifocal pattern of disease distribution with lesions effecting the retovaginal septum, ureter, bladder, and bowel.

Ureteric involvement can occur and in severe cases may lead to urinary tract obstruction, with subsequent hydronephrosis and potential loss of renal function in otherwise healthy young women. This disease can impact significantly on women's physical, psychological and social well-being.

Methods

A 32 year old nulliparous woman originally presented with increasing left loin pain and magnetic resonance imaging (MRI) demonstrated gross left sided hydronephrosis. Her renal function was raised with a creatinine of 93 and evidence of mild cortical thinning of the left kidney. Rigid cystoscopy and JJ stent was sited and retrograde studies demonstrated a dilated system with narrowing of the distal left ureter. Symptoms initially improved, however she reported symptoms of severe dysmenorrhea, dyspareunia and digestive problems including diarrhoea, intermittent constipation and dyschezia. Further imaging identified a nodule of the left uterosacral ligament and pelvic side wall causing extrinsic compression and left ureteric obstruction. A secondary nodule of the rectosigmoid colon with infiltration of the bowel wall and possible stenosis was suspected at colonoscopy.

Results

A multi-disciplinary surgical team comprising of gynaecology, colorectal and urology consultants assessed the patient pre-operatively. A joint laparoscopic surgical approach was performed. A 4 cm endometriotic nodule surrounding the left distal ureter was identified and ureterolysis performed with careful removal of the nodule to relieve external ureteric compression. The nodule extended to involve the left uterosacral ligament, which was completely excised. Thorough intraoperative assessment revealed a large endometriotic nodule involving the recto-sigmoid colon. Initially attempts to shave the nodule free from the bowel were attempted however due to the size, depth of infiltration and presence of significant stricture, rectosigmoid resection with primary re-anastomosis was performed. There were no intraoperative or post-operative complications and the patient made a full recovery. Post-operative MAG3 studies demonstrated no evidence of obstruction although reduced perfusion of the left kidney remains, with residual function of only 20%.

Conclusions

Diagnosis and treatment of deep infiltrating endometriosis should be performed in specialised centres in order to facilitate multidisciplinary collaboration. Clinical suspicion and prompt diagnosis of urinary tract endometriosis is important to salvage renal function. Although rare with a reported prevalence of 1%, ureteric endometriosis is often underestimated with a prevalence of up to 20% in patient series with severe endometriosis. Minimally invasive techniques are feasible in the management of endometriosis and treatment should be tailored according to disease localisation.

ES24-0548
Posters

Health-related Quality of Life in Patients Treated for Ovarian Cancer : Tools and Issues.

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Background

Health related quality of life (QoL) in patients treated for ovarian cancer is directly and heavily impacted by the natural history of cancer, its evolution and its therapeutic modalities.

Methods

To date there are several tools to assess QOL of patients with ovarian cancer. The 2 questionnaires most commonly used are: FACT-O and the EORTC QLQ-OV28.

Results

The evaluation and taking in consideration of various parameters of QoL seem to be a major issue. Indeed, on the one hand, it is essential to take into account the opinion of patients in the choice of therapeutic strategies for this cancer with a poor prognosis and, on the other hand, more and more studies show that QoL is an independent prognostic factor in ovarian cancer. Improvement in this case, in addition to being an endpoint by itself, would potentially improve the overall survival of patients.

Conclusions

The aim of our study was to evaluate from a review of the literature, the reciprocal effects of ovarian cancer on QoL and QoL on ovarian cancer survival, as well as specificities of each of the 2 questionnaires most commonly used in assessing the QoL.

ES24-0552
Posters

Postoperative Clinical Course After Hysteroscopic Surgery Using a Morcellator

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Background

Hysteroscopic surgery utilizing a hystero-resectoscope is the primary method used for treating lesions in the uterine cavity such as endometrial polyps or uterine submucosal fibroids, which can cause implantation failure or menstrual abnormalities. We recently obtained favorable results from a more reliable and convenient hysteroscopic surgery method using TRUCLEAR (Smith & Nephew). Here, we report the results of postoperative second-look hysteroscopy conducted after hysteroscopic surgery with TRUCLEAR.

Methods

TRUCLEAR is composed of a rigid hysteroscope and a morcellator to resect tissue. Similar to hysteroscopic surgeries using hystero-resectoscopes, TRUCLEAR is utilized under general anesthesia (via laryngeal mask) in a lithotomy position, uterine cavity distention and perfusion is performed with saline, and the inflow and outflow volumes of the perfusate are automatically measured. No heat source is used and the tip blade rotates to remove the lesion. Histopathological examination of the resected specimen can be conducted.
We performed this surgery in 10 patients with endometrial polyp and 4 patients with uterine submucosal fibroids. Postoperative clinical course was favorable and all patients were discharged on postoperative day 1.

Results

After the second menstruation after surgery, patients underwent second-look hysteroscopy at an outpatient clinic. No patients presented with uterine cavity synechiae or endometrial defects.

Conclusions

Endometrial polyps and uterine submucosal fibroids can be easily and reliably resected and treated with surgery using the described device. Moreover, the postoperative clinical course using this device was similar to that after using a traditional hystero-resectoscope.