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SELECTED ABSTRACTS FOR ORAL PRESENTATION (40)

ES25-0294
BSA1

Outcomes of surgical management of deep infiltrating endometriosis of the urinary tract

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Background
To report the outcomes of surgical management of deep infiltrating urinary tract endometriosis.

Methods
We reviewed data concerning women managed for ureteral and bladder deep infiltrating endometriosis from July 2009 to December 2015 in surgical departments participating in the CIRENDO prospective database. Preoperative data, surgical procedure data and postoperative outcomes were analyzed.

Results
From July 2009 to December 2015, 81 women treated for urinary tract endometriosis were included, 39 of whom were treated for bladder endometriosis, 31 for ureteral endometriosis and 11 for both ureteral and bladder endometriosis, leading to a total of 42 cases of ureteral endometriosis and 50 bladder endometriosis.

Due to bilateral ureteral localizations in 8 women, 50 ureteral interventions were recorded.

Ureterolysis was performed for 39 lesions. 4 women underwent primary segmental resection of the ureter with immediate end-to-end ureteral anastomosis, and 7 women had ureteral resection with ureteral reimplantation into the bladder. No nephrectomy was performed. Even in the presence of renal atrophy, pre-operative renal scintigraphy showed renal function superior than 10%; thus it was decided to preserve those kidneys.

4 interventions were laparo-converted.

Among the 11 ureteral specimens obtained, intrinsic ureteral endometriosis was histologically revealed in 5/10 (50%) cases.

50 women presented with DIE of the bladder, and underwent either full-thickness excision of the nodule (70%) or excision of the bladder wall up to the submucosal layer without opening of the bladder (30%).

In 42 women operated for ureteral nodules, 7 major post-operative complications were noted. In 50 patients managed for bladder endometriosis, 1 severe postoperative complication occurred in a patient who underwent full-thickness partial cystectomy associated with resection of a vaginal nodule.

Delayed postoperative outcomes were favourable with a significant improvement in painful symptoms and the absence of troubling urinary symptoms.

Conclusions
Conservative surgery in association with postoperative amenorrhea can be proposed in a large number of cases of urinary tract endometriosis. Although outcomes are globally favorable, the risk of postoperative complications should not be overlooked, as surgery tends to be performed in association with other complex procedures.

ES25-0182
BSA1

Prevalence and risk factors of ureteral compression in women with ureteral endometriosis

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Background
Ureteral endometriosis (UE) may be defined as any situation where endometriosis or surrounding associated fibrosis causes compression or distortion of the normal ureteral anatomy. Since there is no ideal imaging modality for detection of UE, it is recommended for the clinician to routinely perform a retroperitoneal identification and inspection of both ureters in all women with deep infiltrating endometriosis (DIE) undergoing surgery. It can be classified into two clinical forms: severe UE, with lesions causing obstruction to urinary flow; and mild UE, with no ureteral stenosis. The accuracy of imaging modality to detect urinary compression is high, but only surgery can confirm this data. The primary aim of the study is to evaluate the prevalence of ureteral compression (UC) in women with UE. Secondary objective is to analyze any correlation between clinical and surgical data and ureteral compression.

Methods
Retrospective study based on clinical records of women with laparoscopic finding of UE at a tertiary referral center, between January 2011 and June 2015. Women with history of other possible causes of UC or bilateral ureteral involvement were excluded. For each woman, data regarding preoperative characteristics (age; body mass index; parity; preoperative medical therapy for a period of at least 3 months; previous surgical treatment for DIE; pain symptoms; preoperative detection of hydroureteronephrosis) and surgical findings (ureteral compression defined as persistent and sudden reduction of caliber of an ureter along its pelvic course; surgical procedure performed to treat UE; location of any other endometriotic lesions; maximum diameter of main deep endometriotic nodule) were collected. Each woman agreed to the potential use of her data in future clinical retrospective studies. Being a retrospective observational study, it only required a local ethical committee notification.

Results
Over the study period, 225 clinical records of women with deep infiltrating endometriosis (DIE) laparoscopically treated for UE were collected. Among these, 20 (8.8%) women presenting exclusion criteria were excluded for analysis. Preoperative hydroureteronephrosis was observed in 98 (47.8%) women. Ureteral compression was documented intraoperatively in 124 (60.5%) patients. A significant (P<0.02) lower body mass index (BMI) was observed in women with UC (19.2+/−2.8) than in women without UC (22.4+/−3.5). A significant association was found between UC and endometriotic involvement of parametrium (70/124, 56.4% of women with UC versus 18/81, 22.2% of women without UC, P<0.001). In multivariable analysis, a low BMI and parametrial endometriosis remained significantly associated with UC. The other parameters analyzed were not significant.

Conclusions
Ureteral compression in women with UE is very common, especially in women with parametrial infiltration and a low BMI. Even without preoperative detection of hydroureteronephrosis, we strictly recommend to inform patient with DIE requiring surgery about potential risk of urological surgery and be prepared to manage any challenging surgical conditions.

ES25-0246
BSA1

Complete documentation of microscopic endometriosis at distance from deep endometriosis macroscopic nodule infiltrating the bowel

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Background
Deep infiltrating endometriosis is a benign condition, occurred to young patients and an exciting debate exists about its best surgical treatment. The aim of the study was: to document microscopic endometriosis at distance from deep endometriosis macroscopic nodule infiltrating the bowel, to search for a relationship between the distance from the nodule and intraoperative and/or histological findings, and to document whether these findings may affect dissemination of endometriosis.

Methods
The study included 10 consecutive patients with deep endometriosis infiltrating the rectum or sigmoid colon who underwent colorectal resection from October 2015 to December 2015 at the Rouen University Hospital, France. A unique technique method was used for grossing all the surgical specimens of large bowel tracts. The specimens were sliced entirely from the distal to the proximal side in step-serial sections using combined transversal and longitudinal macrosection at every 3 mm thickness. We examined 3,272 microsections and the presence and localization of the macroscopic nodules was determined together with the precise localization of microscopic implants, their distance from the macroscopic nodules and surgical margins, their spread over the specimens and the depth of rectal wall involvement.

Results
Six specimens were rectum and 4 were sigmoid colon. The length of colorectal specimen was 9.1cm. The maximum extend of endometriosis of the specimen, including the nodules and their microscopic implants was 7.2cm. Five of the patients have significant varying distance of healthy bowel tissue between microscopic implants. Microscopic implants were considered independent from the macroscopic nodule when they were not found in consecutive histological slides. The diffusion of microscopic implants occurred in various ways: concentrated around the macroscopic nodules (x/10) and far from the macroscopic nodule limit (y/10). Endometriosis affected 25% on average of the specimen's area. The maximum distance from the macroscopic nodule limit to the microscopic implants was 31 mm +/- x mm. Histologic findings revealed microscopic endometriosis in muscularis layer in all 10 examined specimens.

Conclusions
The microscopic implants may be at varying distances far from nodules' macroscopic limits, suggesting that microscopically complete resection may be challenging.

ES25-0484
BSA1

Quality of life assessment after surgery for deep infiltrating endometriosis instead of spraying plasma

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Background
Two main techniques are employed in the treatment of deep infiltrating endometriosis (DIE): a complete surgery with resection of the affected organ, or a conservative surgery with excision of endometriosis lesions and respect of the underlying tissue called shaving. In recent years, plasma spraying has been used alone in shaving or as a complement to traditional shaving. The main objective of our study was to assess the patients' quality of life after DIE surgery depending on the surgical technique employed.

Methods
A telephone qualitative survey has been conducted: all patients with DIE operated on from January 2010 to February 2016 at the University Hospital of Angers have been interviewed. The score Endometriosis Health Profile-5, assessing the quality of life before and after surgery was used. Patients were divided into three groups depending on the surgical technique employed: traditional shaving, plasma spraying shaving (shaving-plasma) and complete resection.

Results
Fifty-two patients were included in our study. The response rate was 86% (52/60). The three groups were comparable in terms of surgical history, initial quality of life score and characteristics of endometriosis lesions (size, location). The average age of patients was 35 years-old and the median follow-up was 23 months. All deep pelvic endometriosis symptoms and quality of life scores were significantly improved after surgery, all-surgical techniques (p<0,001). The length of hospital stay was significantly increased in the complete surgical resection group compared to plasma-shaving and shaving (9 days vs 3 and 4 days respectively; p<0,001). The revision surgery rate was significantly higher in the resection group than in the groups shaving and shaving plasma (23% vs 0% in the two other groups; p=0,02), the recurrence rate was significantly higher in the shaving-plasma group compared to complete resection (46% vs 11%; p=0,049). Quality of life scores were significantly higher in shaving-plasma and complete resection groups than in the simple shaving group (p=0.045). Self-image after surgery was significantly improved in the shaving-plasma group compared with the other two groups (p=0.027). Pregnancy rates were not different depending on the surgical technique used (30% in shaving-plasma group, 41% in complete resection group, 27% in traditional shaving group, p = 0.69).

Conclusions
Shaving-plasma and resection equally improve the quality of life of patients suffering from DIE compared to traditional shaving. The advantages of vaporization plasma compared to resection are a lower morbidity rate and a better self-image after surgery.

ES25-0505
BSA1

CO^2 laser conservative laparoscopic treatment for deep nodular endometriosis: a series of 247 cases after adequate learning curve

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Background
The aim of this study was to evaluate clinical outcomes after CO^2 laser laparoscopic (shaving) conservative technique for deep nodular endometriosis directly after adequate learning curve.

Methods
Between 2005 and 2015, 247 patients underwent laparoscopic treatment for deep nodular endometriosis. After 2 years adequate learning curve, CO^2 laser laparoscopic shaving technique was used for all patient. Clinical outcomes (symptoms, perioperative complications, fertility, and follow up) were prospectively recorded and retrospectively analysed.

Results
Mean age of the patients was 32.22 ± 7.85 years old. 72.1% of the patients presented dysmenorrhea (n=178) and 54.18% of the patients presented positonal deep dyspareunia (n=134). 26.25% presented associated primary or secondary infertility (n=65). Deep nodular endometriotic nodules were classified according previous papers from our group in three type of lesions. Type I lesions (rectovaginal septum) were present in 27.93% of the case (n=69). Type II lesions (retrocervical) were present in 21.78% of the cases (n=54) while type III lesions (retrocervical with rectal involvement) were present in 50.28% of the patients (n=124). All surgeries were performed by laparoscopy and no conversion to laparotomy occured. Mean size of the deep nodular endometriotic lesions was 48.5 ± 11.7mm. Mean time for surgery was 106.11 ± 37min. Peroperative complication occured as follows : 4 ureteral lesions were sutured during the surgery without any pejorative evolution (1.67%). 33 rectal perforation were conservatively covered (13.4%) and 44 superficial muscular layer defect without perforation were sutured peroperatively (17.8%). Serious complications occured in 0.8%. 2 patients presented delayed fecal peritonitis and Hartmann procedure was performed. Median follow-up was 35 months. Only 8.3% of the patients still presented dysmenorrhea (n=21) and 6.1% of the patients presented recurrence of the disease (n=15). One of them underwent bowel resection. Among the patients presenting infertility, a 36.17% pregnancy rate was achieved.

Conclusions
In conclusion, CO^2 laser conservative laparoscopic (shaving) technique is reproducible after adequate learning in terms of clinical outcomes, perioperative complications and recurrence rate.

ES25-0436
BSA1

Re-intervention risk after conservative surgical treatment for leiomyomas: a systematic review and meta-analysis

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Background
For women with symptomatic fibroids who desire uterine conservation a wide range of (surgical) treatment options has become available. Yet, scientific evidence regarding the different therapies varies and as new treatment options keep on emerging, it has become rather unclear which ones offer the most (long-term) benefits. The aim of this systematic review and meta-analysis is to give an overview of the different surgical approaches for conservative treatment of leiomyomas and specifically to compare them in terms of re-intervention risk.

Methods
A literature search was performed to identify cohort studies assessing recurrence risk after treatment of leiomyomas. The different treatment options were classified into four main categories: myomectomy (all types), embolization, hysteroscopy and thermal approaches (including radio-frequency ablation and high-intensity focused ultrasound). To determine the effectiveness of the procedures, we chose as primary outcome the re-intervention risk for recurrence at 12 and 60 months after primary treatment.

Results
The literature search yielded in total 2933 unique articles of which 110 articles met the inclusion criteria. Eighteen studies were randomized controlled trials. Eleven different surgical treatment options were found and were further classified into one of the four main categories. The total study population comprised 21.342 women of which 6148 (28.8%) had undergone myomectomy, 9235 (43.3%) embolization, 2150 (10.1%) a hysteroscopy and 3809 (17.8%) one of the thermal procedures.

After 12 and 60 months respectively, 3.7% (2.5, 5.1) and 15% (10.2, 20.6) of the patients needed a re-intervention. Sub analysis showed that 12 months after myomectomy, re-intervention risks were 1.5% (0, 8.4, 9 studies) for the surgical approach, 3.7% (2.6, 5.1, 23 studies) for embolization, 5.6% (0.1, 17.3, 3 studies) for hysteroscopy and 5.4% (2.7, 8.9, 23 studies) for the thermal approaches. At five years, risks were 8.5% (2.8, 16.8, 7 studies) for myomectomy, 15.9% (11.1, 21.3, 16 studies) for embolization, 7.0% (4.8, 9.5, 2 studies) for hysteroscopy and 53.9% for thermal approaches (47.2, 60.4, 2 studies). Of the 753 patients needing a re-intervention after 60 months, 408 (54.2%) had a hysterectomy (50/101 (49.5%) after myomectomy, 338/495 (68.3%) after embolization, 12/487 (2.5%) after hysteroscopy and 8/120 (6.7%) after one of the thermal approaches).

Conclusions
After one year, a low re-intervention risk was observed for all treatment modalities. After five years, re-intervention risks after embolization were higher than after myomectomy. For hysteroscopy and thermal approaches, insufficient evidence was available to draw conclusions. Although not all the different surgical therapies are applicable to all patients with leiomyomas, re-intervention risk should be discussed with patients during counselling.

ES25-0005
BSA1

Surgical treatment of women with uterine leiomyosarcomas in Norway in 2000-2012

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Background
The objective was to investigate all cases of diagnosed uterine leiomyosarcoma (LMS) in Norway in 2000-2012. We wanted to assess surgical procedures performed in these cases, including use of power morcellators. The second objective was to investigate if the LMS diagnose was known or suspected at time of surgery and to calculate the rate of occult LMS in a cohort of women with presumed benign fibromas and/or menorrhagia.

Methods
Retrospective nationwide cohort study with data from a 13-year period. The included patients were all women with histopathologically verified uterine LMS in Norway in the period 2000-2012. The collected information was obtained from the Norwegian Cancer Registry, the National Patient Registry and from the patients' medical records.

Results
A total of 212 women were diagnosed with LMS in Norway in 2000-2012, all verified histopathologically. In 49/212 (23.1%) the diagnosis was confirmed preoperatively. In an additional 48/212 (22.6 %), a malignant condition was suspected and the women were treated accordingly. In the 115/212 (54.2%) patients without suspected malignancy at time of surgery, management was performed according to the treatment protocol for fibroids. This group was surgically treated with abdominal hysterectomy in 66/115 (57.4%), subtotal hysterectomy in 27/115 (23.5%), radical hysterectomy in 4/115 (3.5%), vaginal hysterectomy in 2/115 (1.7%), laparoscopic hysterectomy in 6/115 (5.2%) and other procedures in 8/115 (7.0%). One patient had hysterectomy abroad, unknown approach. In 1/115 (0.9%) no surgical treatment was performed. In 4/115 (3.5%) tissue retraction by power morcellator was conducted, accounting for 1.9 % of all LMS cases. All of the four women are still alive 33-129 months after surgery. In the period of 2000-2012, 7198 women had laparoscopic hysterectomy performed due to presumed benign fibroids and/or menorrhagia. Six of the 7198 women (0.08 %) had occult LMS. When including all approaches to hysterectomy in the fibroid/menorrhagia-group, 115/34 868 (0.3 %) had unexpectedly verified LMS postoperatively.

Conclusions
In more than 50 % of women suffering from LMS, a malignant diagnosis was not confirmed or suspected prior to surgery. Despite of this, only 0.08% of women undergoing laparoscopic surgery for presumed benign fibromas and/or menorrhagia had occult LMS. We suggest that power morcellators may be used in surgical treatment of selected cases of premenopausal women with symptomatic, presumed benign uterine leiomyomas.

ES25-0159
BSA1

Evaluation of a three-port sealable morcellation bag in 330 supracervical hysterectomies in a multicenter setting

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Background
The study was set to determine the time necessary for the use of a polyurethane endobag with three sealable conduits for power morcellation to assess the feasibility of the device for routine surgical procedures. Rupture rates under everyday conditions were also evaluated.

Methods
330 laparoscopic supracervical hysterectomies (SCH) were carried out in two medical centers by 11 surgeons. The SCH was conducted due to abnormal uterine bleeding, symptoms caused by fibroids or was a part of a prolapse surgery.

The body of the uterus was placed into a polyurethane endobag with three integrated sealable ports. The three ports of the bag allowed to introduce an optic device, a blunt grasper and a 12 mm or 15 mm morcellator. The conduits were closed tightly around trocars by means of traction applied to strings integrated around the bag openings, the bag was inflated with CO_2 and morcellation was carried out. After the morcellation, the ports were sealed irreversibly by tying up the strings prior to bag retrieval.

Results
319 interventions were evaluated. The mean time necessary to unfold the bag and prepare the sample for morcellation was 13.0 min (range, 5-60 min). Mean specimen weight was 129.3 g (range, 9-872 g), mean duration of morcellation process was 8.7 min (range, 1-140 min). Mean weight of remaining material in the bag was 8.7 g (range, 0-66). The bag was damaged during the placement of instruments in four cases (1.25 %), closure strings ruptured in five cases (1.57 %). No bag related complications occurred during the study.

Conclusions
The results of the study show that an endobag with three sealable ports is suitable for clinical routine. All patients should be informed about the risk of bag disruption and rupture of closure strings during the surgery, since these events could influence the potential protective effect of the in-bag morcellation.

ES25-0122
BSA2

Misoprostol for cervical priming prior to hysteroscopy in postmenopausal or nulliparous women; a multi-centre randomised placebo controlled trial

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Background
Outpatient hysteroscopy has numerous advantages over hysteroscopy under general or spinal anaesthesia. Office hysteroscopy may lead to pain, or even failure to enter the uterine cavity. Pain requires additional anaesthesia or causes failure of office hysteroscopy twice as often in nulliparous or postmenopausal women. Misoprostol might decrease pain and therefore failure in these specific groups of women.

Methods
Objective: To evaluate the benefit of Misoprostol compared to placebo prior to hysteroscopy in postmenopausal or nulliparous women regarding the reduction of pain.

Study design: Randomised multi-centre double-blind placebo-controlled trial.

Setting: Two Dutch teaching hospitals and one Dutch university medical centre.

Study population: Postmenopausal or premenopausal nulliparous women undergoing office hysteroscopy.

Procedures: Patients were randomised to receive either 400 mcg Misoprostol or placebo 12 and 24 hours before hysteroscopy. Questionnaires were answered at three timepoints. Pain was not only quantified by the VAS score afterwards, but also with the use of real time pain measurement. This was obtained by an electronic device (Dolorimeter) which is based on the principles of the VAS, and electronically measures pain in a continuous instead of a single manner. During a stimulus, pain per millisecond is continuously measured with the Dolorimeter, providing values of peak pain score, average pain score and area under the curve. Hysteroscopy was executed with a 5,5 mm hysteroscope.

Main outcome measures: the quantified pain during the passage of the hysteroscope through the cervical canal by the VAS score and by real time pain measurement. Secondary outcomes included failures and side effects.

Results
149 patients were randomly assigned between either placebo (n = 75) or Misoprostol (n = 74). Baseline characteristics were similar in both groups. Overall pain scores did not significantly differ between the intervention and the control group. In the sub group analysis, the premenopausal nulliparous group demonstrated a significant difference in VAS score during introduction favouring Misoprostol [5.5 (SD 3.1) versus 2.9 (SD 3.2), p = 0.02)]. The real time measurements passing the cervical canal measured with the Dolorimeter did not significantly differ, although a trend favouring Misoprostol was observed throughout the hysteroscopy in this group. Failures were equally distributed between the Misoprostol group (16%) and placebo group (13%). Failures were subsequently treated under general anesthesia in the operation theatre. Intestinal side effects occurred significantly more frequent in the Misoprostol group (67%) compared to the placebo group (32%) (OR 4.2 [CI 2.1 – 8.3], p < 0.01).

Conclusions

Misoprostol prior to hysteroscopy reduces pain, when measured with a VAS score, in nulliparous premenopausal women. Continuous pain measurement demonstrates a trend favouring Misoprostol in this group. Misoprostol does not reduce overall pain scores in postmenopausal women. Moreover Misoprostol causes significant intestinal side effects. Therefore Misoprostol should not be administrated to postmenopausal women.

ES25-0235
BSA2

Long term reproductive outcomes after hysteroscopic outpatient metroplastyto expand dysmorphic uteri (HOME- DU) technique

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Background
To evaluate the long term reproductive outcomes in patients with dysmorphic uterus (T-shaped and tubular-shaped infantilis uterus) treated by Hysteroscopic outpatient metroplasty to expand dysmorphic uteri (HOME-DU technique).

Methods
A prospective observational study conduced on 64 women with dysmorphic uterus (Class U1 by European Society of Human Reproduction and Embryology and the European Society for Gynaecological Endoscopy Classification, 2013) diagnosed by office hysteroscopy and 3D-transvaginal ultrasound (3D-TVS) and with at least one of the following criteria: history of primary infertility after exclusion of other infertility factors (GROUP 1), history of repeated early miscarriages (>2) (GROUP 2) or severe preterm delivery (<25 weeks) (GROUP 3). All patients were treated by HOME-DU technique to expand the dysmorphic uterus in outpatient setting under conscious sedation, using a 5-mm office continuous-flow hysteroscope with 5 Fr operating channel and vaginoscopic approach. Longitudinal incisions were performed on the fibro-muscular constriction rings in the isthmic area and on the anterior and posterior uterine walls with a 5 Fr bipolar electrode. At the end of the procedure, an antiadhesive gel was applied into the uterine cavity to avoid post-operative adhesions. Post-surgical assessment was conducted by office hysteroscopy and 3D-TVS. The patients were evaluated for the long-term reproductive performance, considering a minimum follow-up of 6 months in which these women tried to conceive naturally or through assisted reproductive methods.

Results
The HOMEDU technique was successful in all cases with a significant increase of uterine cavity volume and amelioration in the morphology of the uterus. At mean follow-up of 26 months, an overall clinical pregnancy rate of 56% (n=36/64) and a live birth rate of 62% (n=18/29) were observed with a mean time of conception of 6.5 months. Twenty-four out of these 36 women (68%) conceived spontaneously and 4 of these 24 women (17%) had already tried an Assisted Reproductive Technology. In table 1 the main reproductive outcomes of the three groups are reported.

Inclusion criteria	ClinicalPregnancyrate	Abortion rate	Term delivery rate*	Live birth rate*	Mode of delivery cesarean section	Mode of delivery vaginal delivery
GROUP 1 (n=54)	29/54(54%)	4/29 (14%)	19/29(66%)	18/29(62%)	11/19(58%)	8/19(32%)
GROUP 2 (n=9)	7/9 (80%)	2/7 (29%)	5/7 (71%)	5/7 (71%)	4/5(80%)	1/5(20%)

GROUP 3 (n=1)	0/1 (0,0%)	-	-	-	-	-
Total (n=64)	36/64 (56%)	6/36 (17%)	24/36 (67%)	23/36 (64%)	15/24(63%)	9/24(37%)

*6 on going pregnancies

No significant obstetric complications were reported.

Conclusions
Our data seem to confirm that HOME-DU technique is associated with a significant improvement of the reproductive outcomes. Despite our small cohort, these promising functional results reveal the benefit of the minimally invasive approach in infertile women with dysmorphic uterus. An ongoing study is evaluating the changes in endometrial receptivity before and after HOMEDU technique.

ES25-0157
BSA2

Diagnostic and therapeutic role of resectoscopic endometrial resection in post-menopausal high-surgical-risk patients with endometrial intraepithelial neoplasia

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Background
Evaluating the effectiveness of resectoscopic endometrial resection in the conservative management of endometrial intraepithelial neoplasia (EIN) in elderly high-surgical-risk patients.

Methods
We selected seven patients, age ranging from 70 to 88 years, complaining AUB, with several comorbidities and high surgical risk. By means of hysteroscopic taylored biopsy performed in outpatient setting, endometrial intraepithelial neoplasia has been diagnosed in all patients. Resectoscopic exeresis of the endometrial lesion including 3-4 mm of underlying myometrium of uterine walls were performed and the specimens were separately sent for hystological analysis.

Results
In seven high-surgical-risk patients, age ranging from 70 to 88 years, complaining AUB, endometrial intraepithelial neoplasia was diagnosed. A resectoscopic endometrial resection, with removal of 3-4 mm of underlying myometrium, was performed using thermal loop electrodes. At histological analysis myometrial infiltration resulted in three of these patients. These patients were therefore sent to radiotherapy. Four patients with no evidence of myometrial infiltration was submitted to three-months hysteroscopic follow-up. After nine months these patients was submitted to transvaginal ultrasound evaluation every six months with no relapse of disease in two years of follow-up.

Conclusions
In patient with diagnosis of EIN without myometrial invasion resectoscopic endometrial resection, involving underlying myometrium, allows an accurate histological diagnosis and a proper selection of patients who would be submitted to radiotherapy. Moreover, this minimally invasive surgical procedure could have a perspective therapeutic role for elderly patients presenting several comorbidities and high surgical risk, assessing myometrial infiltration and allowing an optimal cytoreduction.

ES25-0120
BSA2

Does temperature of distending medium matter in outpatient hysteroscopy? A pilot case control observational study

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Background
Anecdotally, outpatient hysteroscopy should be performed with saline distension medium at body temperature to prevent vasovagal episodes and potential cervical spasms. However, there only has been one study assessing the efficacy of room *vs* body temperature warmed distention fluid. The aim of our study was to see if the temperature of the distending fluid affects the clarity of the view, ease of technique and patient discomfort during the procedure.

Methods
Patients attending two outpatient hysteroscopy clinics where both consultants use the vaginoscopic approach were allocated to receive saline distention medium at either room or body temperature. The data were collected prospectively and outcome data included patient acceptability, discomfort, and clarity of view were analysed.

Results
There were 16 patients in the room temperature (control) group (median 27.5°Celsius) and 10 patients received warmed saline (median 37.5°Celsius). Indications for hysteroscopy were similar in both groups and included PMB, irregular bleeding and lost coil threads. The median parity was statistically similar in both goups (2.7 *vs* 1.3; p=0.01) and good panoramic views were visualised in 100%. There were more polyps noted in the room temperature *vs* warmed groups (13% *vs* 10%; p=0.3) and the proportion of patients having taken pre-procedure oral analgesia were similar (20% *vs* 30%; p=0.23). The median discomfort (VAS) during the procedure was 6.8 in the room temperature *vs* 7.4 in the warmed saline group (p>0.05); similarly, there was no statistical difference in median discomfort 5 mins following procedure (VAS 4.6 *vs* 3.7; p>0.05).

Proportion of women who would recommend the outpatient procedure to friends/relatives were similar in both groups (8.6/10 *vs* 8.5/10; p>0.05). 94% in the room temperature group found the water temperature about right while 100% in the warmed saline group found the temperature about right.

Conclusions
In this pilot study (we anticipate 75 patients in each arm eventually), we noted no statistical differences in patient discomfort or clarity of panaromic view, irrespective of whether the distension fluid was warmed to body temperature or not.

ES25-0394
BSA2

Reproductive and obstetric outcomes of hysteroscopic correction of a dysmorphic (U1) uterus.

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Background
The dysmorphic uterus is a congenital malformation of the female tract, recognized in the ESHRE-ESGE classification as class U1, referring to subtle cavity deformations. Some studies have indicated that patients with a dysmorphic uterus have a reduced reproductive performance .

The aim of the study was to evaluate the reproductive and obstetric outcome of the hysteroscopic surgical correction of an U1 uterus in case of recurrent miscarriage or prior to IVF.

Methods
This is a retrospective analysis of all patients who underwent hysteroscopic surgery for a dysmorphic uterus at ZOL, Genk Belgium hospital between 01-06- 2007 and 31-06-2014 prior to IVF or for patients suffering of recurrent miscarriage. All surgeries were performed by the same surgeon using a mini-hysteroscope and the micro-scissors (Karl Storz endoscope, Tuttlingen). The post-operative live-birth rate of the first conception after surgery was used as the primary outcome parameter.

Results
A total of 103 patients were operated in this period, in 83% prior to enter the IVF treatment and in 17% for recurrent miscarriage.

Today a total of 77 women (74,7%) became pregnant from whom 50 delivered and 10 patients are still ongoing. The live birth rate is 48.5%. In 16 of 77 cases the patient miscarried (20.8%), one ectopic pregnancy was recorded (1.3%).

No complications occurred during surgery. The post-operative control after two months showed in 4 patients (3.9%) an incomplete result and the indication for a second uteroplasty.

Mean time to successful conception was 9,8 months (1-52) versus no success. A total of 29,8% (n=23) became pregnant spontaneously and 70,2 % (n=54) used ART.

A total of 50 deliveries resulted 48 times in a term delivery with normal birth weight. The mean birth weight was 3083,2 grams and the cesarean section rate was 38% (19/50). There was no placental abruption and/or uterine rupture. We recorded 4 early postpartum hemorrhages, 3 with manual removal of the placenta and one case with severe hemorrhage resulting in a postpartum hysterectomy. Two patients needed hysteroscopic removal of placental remnants 3 months after delivery.

Conclusions
This study represents currently the largest series of surgical correction for dysmorphic uterus. Although retrospective, the strength of this study lies in the fact that all indications and surgeries and post-operative control have been performed by one surgeon.

The obstetrical outcome is excellent with a high percentage of term delivery, acceptable miscarriage rate and low ectopic pregnancy rate. Concern can be expressed towards the incidence of placental remnant rate with associated risks. Further studies of a large cohort of patients are needed.

This study indicates that surgical correction of a dysmorphic uterus could be beneficial for patients prior to IVF or in case of recurrent miscarriage.

ES25-0396
BSA2

Patients satisfaction with office operative hysteroscopy - a review of new data and our results.

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Background
Office hysteroscopy has become the method of choice for evaluation of the cervical canal and uterine cavity. Common procedures include endometrial polypectomy, removal of small submucous fibroids, trophoblastic tissue remnants and retained intrauterine devices, resection of intrauterine septum, and synaechie as well as transcervical permanent tubal occlusion. The purpose of our prospective study was to assess the satisfaction of office hysteroscopy using no type of anesthesia, and to identify the VAS score determining the pain level during the procedure.

Methods
639 patients with cervical canal and uterine cavity pathology were treated with office hysteroscopy at University Gynaecological Clinic Maribor, Slovenia between 2015 and 2016. After the procedure they received a valid questioner in which they gave a Visual analogue (VAS) score from 0 to 10; 0 representing no pain and 10 meaning extreme pain, satisfaction score from 1 to 5; 5 meaning complete satisfaction. They also gave an opinion about acceptability of the procedure without general anesthesia (GA) from 1 to 5; 1 meaning the procedure is unacceptable without GA and 5 that it's completely acceptable without GA. They also answered the question if they would recommend it to a friend also from 1 to 5; 1 meaning no, never and 5 meaning yes, absolutely.

Results
Women's mean age was 47.3 ± 13.1 years. Among performed procedures, 31.8% were polypectomies, 14.4% Essure sterilizations, 17.7% diagnostic procedures and 7.1% of septum resection. The mean satisfaction score was 4.9 ± 0.4. 88.7% of the patients would recommend the procedure to her friend. The mean calculated VAS was 2.8 ± 2.2. The average duration of a procedure was 10.7 ± 9.8 minutes. We found a significant positive correlation between the VAS score and age ($p < 0.001$), and between age and duration of the procedure ($p < 0.001$). No significant correlation was found between satisfaction and duration of the procedure ($p = 0.239$). 33.1% of patients were treated with Versapoint bipolar electrodes, they reported significantly higher VAS score, 3.4 vs. 2.6 respectively ($p < 0.001$). Mean VAS score was significantly lower ($p < 0.001$) in women who gave vaginal birth (2.5; N = 458) than those who did not (3.6; N = 112).

Conclusions
Our results show that office hysteroscopy is a safe and feasible procedure with little pain. We found a correlation between VAS and age; showing the pain grows with age and a correlation between duration of procedure and age showing that the procedure takes longer in elder women. Using Versapoint increased the pain level. We also noticed a difference in VAS scores between different hysteroscopes. Patients who gave vaginal birth gave lower VAS scores.

ES25-0330
BSA2

Intra-uterine adhesions: is hysteroscopic management useful?

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Background

Operative hysteroscopy is the only treatment for intra uterine adhesions. Main causes of intrauterine adhesions are curetage, hysteroscopic myomectomy, myomectomy by laparotomy or laparoscopy, uterine revision, or management of postpartum haemorrhage (embolisation, uterine compression suture). Adhesions can be revealed by amenorrhea or pain and lead to infertility.

Fertility after hysteroscopic management of uterine adhesions is a major issue. Data about subsequent fertility after hysteroscopic management of intrauterine adhesions are sparses and included few women.

Methods

This retrospective study included women with an operative hysteroscopy for intra-uterine adhesions between June 2009 and December 2014.

Hysteroscopic management was performed in the operative room under general or loco-regional anaesthesia. Systematic postoperative office hysteroscopy is performed 4 to 6 weeks after intra-uterine adhesions section to evaluate uterine cavity. Postal and phone questionnaire were performed to have data about subsequent fertility and issues of pregnancy. Ethical committee approval was obtained (CEROG 2015-GYN-0701).

Results

Two hundred two women had operative hysteroscopy for intra-uterine adhesions in the department during the study period. According to describe classification, 13 women had type I adhesions, 41 had type II, 41 had type III, 55 had type IV and 52 had cervico-isthmic adhesions. After exclusion of women without any pregnancy desire, one hundred twelve women were included. Mean age was 34.3 [33.3-35.3]. More than one procedure was necessary for 20 of women.

A pregnancy was obtained for 58 women (52%). It was a spontaneous pregnancy for 50 women (86%) and after ART treatment in 8 cases (16%). The rate of early miscarriage was high (37%) and the rate of premature delivery of 19%. Out of the forty five term delivery, we report 26 vaginal delivery and 19 cesarean delivery. Five women had placentation abnormalities (8.6%).

For type III and IV synechiae, pregnancy rate was 51% (29 women). Mean term delivery is 34 weeks of gestation. Placentation abnormalities was retrieved in 19% (4 out of 21).

Conclusions

Fertility after operative hysteroscopy for intrauterine adhesions is around 50% whatever the type of synechiae. Some pregnancies are reported even after many procedures. Placental abnormalities seems to be frequent after hysteroscopic management of intra-uterine adhesions.

ES25-0178
BSA2

New sonographic score of adenomyosis : classification of type and degree of the myometrial involvement and correlation to symptoms

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Background
The objective of this study is to purpose a score system based on TVS features to grade the severity of the adenomyosis thus in order to improve the management of symptomatic patients.

Methods
Ultrasound criteria for different types adenomyosis ,focal, diffuse and adenomoyma, were defined. A score number from 1 to 4 were assigned to the extension and myometrial involvement of each type of adenomyotic lesions and for junctional zone alterations. We defined mild adenomyosis score =1 ; moderate score 2 and 3 severe adenomyosis a score ≥ 4. A correlation of the TVS score and presence of associated symptomatology was performed .The amount of menstrual loss was assessed by a pictorial blood loss analysis chart (PBAC) , painful symptoms were evaluated using a visual analog scale (VAS) and infertility factors were considered

Results
We evaluated 50 patients with ultrasound findings of adenomyosis. 10 patients with focal -mild adenomyosis showed dysmenorrhea with a VAS score >7 and infertility. 12 patients with severe-diffuse adenomyosis had dysmenorrhea with a VAS score >5 and menorrhagia with a PBCA score > 120

Conclusions
Mostly by TVS only the presence or absence of adenomyosis is reported .The type of adenomyosis and the extension of the disease in the myometrium seems important in correlation to the severity of symptoms but also for an emerging request of surgical treatment

ES25-0068 -
BSA3

Laparoscopic treatment of bladder endometriosis: outcomes on 223 patients treated in an endometriosis unit

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Background
Bladder endometriosis is defined as endometriosis infiltrating the detrusor muscle partially or with full thickness extension. Its incidence ranges from 0,3 up to 12% of all women affected by endometriosis. Laparoscopic treatment represents, in and Endometriosis Unit, the gold standard surgical procedure to eradicate the disesase.

Methods
retrospective analysis on 223 women treated for bladder endometriosis from January 2004 to April 2015 in our Department. Pre-op study included transvaginal ultrasound and cistoscopy. Bladder wall opening and resection was obtained using bipolar scissors, monopolar hook or combined energy and ultrasound devices. After bladder opening, distance of the excision margins from both ureteral hostia was visualized and ureteral double-J catheter was considered if less 2 cm. The bladder then was closed by double-layer intra-corporeal laparoscopic running suture using Vicryl 3/0. At the end of the procedure, the bladder was filled with 240–300 ml of a 0.9 % NaCl solution, for watertight closure testing. Single strengthening stitches were applied if a leakage was noticed and the filling test was repeated.

Results
62.7% of the treated patients had previous pelvic surgery. Dysuria was reported in 65% of women, while hematuria only in 24%. The average size of the nodules was 3.1 cm as for pathology report. Twenty patients (9,8%) have had associated ureteric lesions with obstruttive signs and pielectasy, requiring ureterocistoneostomy.

Median duration of surgery was 251 minutes. There were no conversions to laparotomy. Mean hospital stay was 9,5 days. There were no intraoperative complications related to the urinary phase. Median intraoperative blood loss was 111 milliliters.

Peri-and post-operative complications (<28 days) which resulted in laparoscopic re-intervention were observed in 16 patients: ureteral fistula (1, 0,4%), ureteral stenosis (1, 0,4%), vesico-vaginal fistula (3, 1,2%), Sepsis (2, 0,8%), uroperitoneum (1, 0,4%), hemoperitoneum (5, 2%), intestinal complications (3, 1,2%).

Suture leakage was reported at cystography in 7 cases (3,1%), in no case surgical correction was performed, in all these patients the catheter was maintained up to 20 days with complete heal of the leakage.

Long term complications (> 28days) were reported in only 1 in patients for ureteral stenosis.

Median follow-up was 55,5 months

At the 1,6 and 12 months follow-up visit 218 patients (98.75%) reported complete resolution of symptoms, only 5 patients (2.24%) reported persistent symptoms of urinary tract.

The rate of recurrence at 12 months of follow-up is 2.9%.

Conclusions

laparoscopic excision of bladder endometriosis proved to be a safe and effective approach in the resolution of symptoms reported at 12 months, and with a rate of relapse 2.9%. The laparoscopic approach t should be considered as the only radical ablative treatment when performed in reference centers and in expert surgical hands

ES25-0016
BSA3

Sarcoma thread and fibroid morcellation

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Background
In case of inadvertent morcellation of an unexpected uterine sarcoma the clinical outcomes, due to the rapid intraperitoneal dissemination of malignant tissue during the procedure can be negatively influenced.

Methods
The purpose of this study was to determine the prevalence of uterine sarcoma in women undergoing hysterectomy or myomectomy for benign uterine fibroids in Kiel, Germany by a retrospective analysis of our cases between 2003-2014 – 12 years). The total number of women operated for uterine fibroids was 2297.

Results
938 (42.5%) women had myomectomies and 1269 (57.5%) women had hysterectomies. In myomectomies the most frequently used surgical method was laparoscopic myomectomy in 591(63an %) cases, followed by hysteroscopy myomectomy in 306 (32.62%) cases, and laparotomic myomectomy only in 41 (4.37%) cases In hysterectomies, laparoscopic approaches significantly dominated in 1163 cases (61.1%) ,showing laparotomic approaches in 491(25.82%) cases and vaginal approaches in 247 (12.99) cases. Only, one patient with endometrial stromal sarcoma (ESS) was not preoperatively diagnosed and treated as symptomatic uterine fibroid; this patient underwent laparoscopic supracervical hysterectomy. In the post-operative histopathological examination ESS was detected. Thus, our incidence of sarcomas among women who underwent benign uterine fibroid surgery is 1/2297 (0,043%).

Conclusions
The issue of Laparoscopic power morcellation which should be performed only in cases with no suspicious of malignancy is still not solved. However, patients, who undergo laparoscopic surgery with power morcellation should be informed about the possible risks of morcellation in cases of inadvertend rare not suspected malignant disease.

ES25-0011
BSA3

The 6-point technique: a simplified laparoscopic sacral colpopexy for the management of multicompartment pelvic organ prolapse (POP)

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Background
Sacral colpopexy is the gold standard treatment for vaginal vault prolapse in sexually active patients. The vaginal route is still largely used because of its perceived technical ease of use as compared to laparoscopic sacral colpopexy (LSC). Our current conception of LSC is a global treatment with replacement of the defective fascia and ligaments, with two separate meshes, anterior and posterior, combined with cervical ring repair. Technical difficulties, mainly the number of sutures, represent limitations to its widespread use. Since 2009, we have developed the "6-point technique", a simplified technique regarding the number of mesh fixation points, in order to enhance LSC diffusion.

Methods
We retrospectively reported 178 patients who benefited from a LSC procedure with or without hysterectomy, from January 2004 through December 2010, at the University Hospital of Strasbourg. Since 2009, 83 of these patients were operated on using a simplified technique procedure, with only 6 points. We subsequently described this new technique and its outcome, as compared to the conventional technique.

Results
The median follow-up time was 35.1 months (range: 7-84 months). In a majority of cases, anterior and posterior meshes were fixed (167 patients; i.e., 93.8%), anterior meshes in 10 cases (5.6%) and posterior meshes in one case (0.6%). The length of the procedure was shorter in the "6-point technique" group as compared to the conventional technique group (179 vs. 195, p=0,072). Hospital stay was shorter in the "6-point technique" group (5.3 vs. 4.5, p=0,005). The interruption of morphinic intake was possible at 1.16 days, statistically earlier in the "6-point technique" group (1.24 vs. 1.07, p<0,001). The global rate of long-term reintervention was 19.4%, statistically shorter in the "6-point technique" group (23% vs. 13%, p<0,05). There was no statistical difference between the 2 techniques, regarding quality of life, recurrence, graft, stress urinary incontinence (SUI), and dyspareunia. Intraoperative complications, recurrence, SUI de novo rates were similar to the ones reported in the literature.

Conclusions
LSC deserves to be the true gold standard in the management of POP, with excellent short-term reconstructive outcomes. The efficacy of this simplified 6-point technique was assessed, including global prophylactic POP repair and reduced operative difficulties, in order to allow for a widespread LSC diffusion. However, the lack of approved recurrence definitions in terms of compartment, mesh erosion, and exposure does not allow for an appropriate comparison between studies.

ES25-0053
BSA3

Technique and main results of simplified laparoscopic cervical cerclage

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Background

To introduce the technique and to evaluate the efficacy of Simplified Laparoscopic Cervical Cerclage in women with cervical incompetence.

Methods

A consecutive cases of 100 subjects with cervical incompetence who failed to have a live birth following previous pregnancy underwent Simplified Laparoscopic Cervical Cerclage. A uterine elevator was inserted into uterine cavity. The straightened needle of a 5-mm Mersilene tape was introduced into the abdominal cavity via the 5-mm left lateral port. Without dissecting the bladder off from lower uterine segment and without separating the uterine vessels from the lateral wall of the cervix; only with the uterus in the acutely ante-verted position, the straight needle was inserted directly into the posterior aspect of the paramedical tissue for 2-3 mm at a point just medial to the lateral edge of the cervix at the junction of the uterine isthmus and the cervix. Then using the second needle attached to the other end of the Mersilene tape, and the whole procedure was repeated on the opposite side. Finally uterine manipulator and the needle was removed; and the tape was tied anteriorly at the cervico-isthmic junction with 2-3 surgical square knots.

Results

The outcome of subsequent pregnancy was obviously improved. The live birth rate was 53/55 (96.4%), and the mean gestational age at delivery of this group of women was 37.5±1.8 weeks.

Conclusions

The simplified laparoscopic cervical cerclage is a simple, safe, and effective procedure for the treatment of cervical incompetence.

ES25-0139
BSA3

Comparison of two methods of vaginal cuff closure at laparoscopic hysterectomy and their effect on female sexual function and vaginal length: A randomized clinical study

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Background
Laparoscopic hysterectomy has become the standard approach in gynecological benign disorders. During laparoscopic hysterectomy, vaginal cuff can be closed with different sutures, techniques and approaches, which is one of the challenges of this surgery. Various studies in the literature evaluated different approaches (abdominal, vaginal, laparoscopic, robotic-assisted laparoscopic). In addition, for cuff closure, different techniques (interrupted, continuous) and sutures (barbed, Vicryl) were compared. However, there is no prospective randomized clinical study in the literature that compares laparoscopic approach with vaginal route for cuff closure in terms of female sexual function in relation to vaginal length. In this study, we tried to evaluate if any differences exist in sexual function and vaginal length between vaginal route versus laparoscopic approach in the management of vaginal cuff closure during total laparoscopic hysterectomy.

Methods
This was a prospective pilot study with randomized, double-blind design in an university hospital. All patients who were scheduled to have total laparoscopic hysterectomy because of benign conditions were invited to participate in this study. Patients were randomized to vaginal cuff closure via vaginal route versus laparoscopic approach. The study included a total of 70 patients of whom 34 underwent laparoscopic approach in the management of vaginal cuff closure and 36 underwent vaginal route in the management of vaginal cuff closure. This study was registered at ClinicalTrials.gov, a service of the United States National Institutes of Health, in accordance with good clinical practice guidelines. The ClinicalTrials.gov identifier is NCT02293369.

Results
Two groups were matches in terms of for age, parity and body mass index (51.3±9.0 versus 47.3±5.9, 3.3±1.4 versus 3.1±1.1, 28.4±3.6 versus 26.6±3.6, respectively; all $p>0.05$). Duration of total surgery was significantly shorter in the laparoscopic approach group compared to vaginal route group (112.2±36.5 versus 122.7±53.6; $p<0.05$). Total FSFI scores preoperatively and 3-month postoperatively were similar between laparoscopic approach and vaginal route groups (all $p>0.05$). Vaginal lengths 3-month postoperatively were significantly longer in the laparoscopic approach group compared to the vaginal route group (8.39±0.90 versus 7.34±1.17; $p<0.05$). Duration of cuff closure was significantly shorter in the vaginal route group compared to laparoscopic approach group (8.92±2.23 versus 7.51±2.5; $p<0.05$). Preoperative vaginal lengths were significantly longer in comparison to 3-month postoperatively both in the laparoscopic approach and the vaginal route groups (all $p<0.05$). Preoperative total FSFI scores were significantly higher in comparison to 3-month postoperatively both in the laparoscopic approach and the vaginal route groups (all $p<0.05$).

Conclusions
The approach for vaginal cuff closure after hysterectomy usually depends on the preference and the experience of the surgeon. The results of this study indicate that laparoscopic approach for vaginal cuff closure might be preferable due to better postoperative vaginal length and shorter duration of total surgery time.

ES25-0215
BSA3

Deep endometriosis: can pre-operative MRI predict digestive surgery ?

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Background

Deep endometriosis remains a challenge for surgeons. It requires a highly accurate pre-operative examination. Nowadays, a magnetic resonance imaging (MRI) is the gold standard prior to the operation to evaluate the degree of bowel nodules. To prevent deep endometriosis recurrence, we can perform simple adhesiolysis, shaving, discoid resection or segmental resection. In our practice, only one referring radiologist does MRI in deep endometriosis. However, whatever the conclusion is, bowel resection is only decided per-operatively. Indeed, a conservative surgery is done as frequently as possible among these young patients who only suffer from functional disease. What is the reliability of MRI in this challenging surgery ?

Methods

A retrospective monocentric study was designed in Strasbourg between 2009 and 2015. All the datas about patients who undergone surgery for deep endometriosis were collected when the MRI was performed by our referring radiologist. We compared the digestive invasion described in MRI with the surgery performed on the digestive tract. The main goal was to assess if MRI can predict digestive surgery (conservative approach versus radical treatment) ?

Results

Between 2009 and 2015, 66 patients underwent surgery for bowel endometriosis. In 64% of cases, MRI description was accurate to the per-operative statement. In 30% of cases, the radiologic conclusion didn't match with the surgery performed. In 6% of cases, the radiologist can not conclude about the depth of digestive invasion.

Sensibility and specifity of MRI were respectively 0.89 and 0.79.

When a parietal invasion was described on MRI, a discoid or segmental resection was performed in only 59% of cases.

When simple adhesions were described on MRI, 14% of patients underwent a digestive surgery (from shaving to discoid resection) according to per-operative observation. .

Conclusions

To conclude, MRI remains a useful tool in deep endometriosis. However, it can't replace the per-operative assessment of the surgeon. As a result, the request of digestive surgeons can't be anticipated for sure with pelvic MRI.

ES25-0254
BSA3

Contained power morcellation within an insufflated isolation bag versus open power morcellation: comparison of perioperative and postoperative outcomes: a case-control study

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Background
Objectives To evaluate whether morcellation within an insufflated isolation bag could be efficiently proposed as alternative to the uncontained power technique with respect to operative times and perioperative outcomes for laparoscopic treatment of fibroids.

Methods
Methods. The technique for in-bag morcellation entails placing the specimen into a containment bag within the abdomen, insufflating the bag within the peritoneal cavity, and then, using a power morcellator, through the only one 12mm sovrapubic port, to remove the specimen from inside the bag, under vision by a 5mm camera placed, through the left pelvic 5mm port, inside the bag. A case-control study is described. Kruskal-Wallis / Mann-Whitney's test and Chi-square / Fisher's exact test were used to analyses continuous or categorical variables, respectively.

Results
Results. The cohort consisted of a large series of 160 consecutive patients who underwent surgery with morcellation of uterine fibroids from April 2014 to March 2016. Prospective data collected from 80 patients who underwent in-bag morcellation were compared with retrospective data collected from the immediately preceding 80 patients who had uncontained power morcellation. Baseline demographics, as well as, number and size of fibroids, specimen's weight, perioperative complications, estimated blood loss, hospital length of stay were comparable between the 2 groups. Operative times did not vary significantly by surgeon or Institution, but were influenced by fibroids weight in both groups ($p<0.001$). Only one case of isolation bag disruption occurred during the insufflation phase of the procedure (i.e. before morcellation), thus requiring the insertion of a new bag to start in-bag morcellation. Although in-bag morcellation required a median time of 8 (range 4-22) minutes to prepare the insufflated isolation bag, the morcellation time was not significant different with respect to uncontained morcellation (median morcellation time=13, range 7-50 minutes for in-bag morcellation vs 13, range 5-35 minutes for uncontained morcellation; $p=0.85$). Similarly, the total operating time recorded for in-bag morcellation (median=50, range 25-180 minutes) did not differ with respect to uncontained morcellation (median=52, range 25-155 minutes; $p=0.45$). Within a median follow-up of 12 (range 2-26) months, there were no cases of malignancy or recurrence as peritoneal leyomiomatosis or sarcomatosis.

Conclusions
Conclusions. In-bag power morcellation, a tissue extraction technique developed to reduce the risk of tissue dissemination, represents a time-efficient and feasible alternative, which does not interfere with surgical outcomes in women undergoing laparoscopic myomectomy. This represents the largest series reported in the literature about in-bag morcellation of uterine fibroids and it is the only one laparoscopic technique using a single 12/15mm port for morcellation and three 5mm ports.

ES25-0248
BSA3

Prospective-controlled assessment of stress hormones in patients undergoing myomectomy by laparoscopy and open surgery

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Background
The aim of the study was the objective determination of surgical stress and post-operative pain through the assessment of stress hormones and patient discomfort as well as to evaluate the stress hormones response after pelvic surgery performed by laparoscopy versus laparotomy

Methods
In this prospective case control study a total of 65 patients of reproductive age, who underwent myomectomy were included; of these 30 were treated with laparoscopic myomectomy, 30 with open surgery, while 5 were excluded due to exclusion criteria such as different surgery outcome, blood transfusion etc. The fibroids location included subserosal and intramural ones, while the maximum diameter of the fibroids was up to10 cm and the total number up to 3. Exclusion criteria involved allergies, endometriosis, endocrine disorders, previous laparotomy, fibroid number of more than 3 and diameter of more than 10 cm. All surgical procedures were performed by the same surgical team and the surgical technique in both open and laparoscopic surgery was identical.

Three venous blood samples were received from each patient. The first one was collected just before surgery, the second at the end of the surgical procedure after extubation with the patient awake, and the third on the morning of the first post operative day. The blood samples were centrifuged, tagged and stored in deep freeze conditions. They were finally measured together to avoid inter-assay & intra-assay variation. We evaluated intraoperative and postoperative variations of the following stress related markers: adrenocorticotropic hormone(ACTH), corticotropin-releasing factor (CRF), cortisole, noradrenalin and b-endorphin. Furthermore a questionnaire was completed the first post operative day, in which patients were asked to indicate the level of pain they were experiencing through a Visual Analog Scale of Pain (VAS).

Results
No significant difference was observed in cortisole and b-endorphin levels.

On the contrary there were significant differences between the two groups in the values of ACTH, CRF and noradrenalin. More elevated values for laparotomy were observed for the hormones ACTH ($p<0.025$), CRF ($p<0.05$) and noradrenalin ($p<0.027$), with statistical significance reached in all cases in the first post operative day. Postoperative pain was significantly higher in the laparotomy group , fact that was clear from the elevated values in the VAS charts. The modification of surgical stress responses by endoscopic surgery is demonstration of less pain, shorter hospital stay and less morbidity.

Conclusions
Endoscopic surgery has been clearly demonstrated to have important modifying effects on classic endocrine metabolic responses and while more data is needed, the clinical consequences of these findings in relation to stress reduction, surgical outcome and provision of an active rehabilitation with early mobilization, place laparoscopy high on the physicians surgical options.

ES25-0438
BSA4

Long term autonomic function after laparoscopic Total Mesometrial Resection (L-Tmmr) for early stage cervical cancer: a prospective multi centric study

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Background
This multicentric prospective study investigates the early, and long-term women's self reported urinary, bowel, and sexual dysfunctions in early cervical cancer patients submitted to Laparoscopic Total Mesometrial Resection (L-TMMR), Total Laparoscopic Radical Hysterectomy (TLRH), Vaginal Assisted Laparoscopic Radical Hysterectomy (VALRH), and Laparoscopic Assisted Radical Vaginal Hysterectomy (LARVH).

Methods
Cervical cancer patients, FIGO Stage IA2-IB1/IIA1 submitted to nerve sparing radical hysterectomy were recruited. Autonomic functions were assessed within 30 days (early outcome), and 12 months after surgery (long-term outcome). Sexual sphere was evaluated using the EORTC Core Quality of Life questionnaire items for sexual functioning (QLQ-CX24).

Results
213 subjects receiving nerve sparing radical hysterectomy were enrolled. L-TMMR was performed in 46 patients (21.6%), TLRH in 65 patients (30.5%), VALRH in 54 patients (25.4 %) and LARVH in 48 women (22.5%). OT was significantly lower in the L-TMMR group (240 minutes; range 120-670, p-value 0.001). The overall perioperative complication rate was 11.3 % with no statistically differences among the four groups. Stress incontinence and sensation of bladder incomplete emptying detected respectively in 54 (25.6 %) and 65 (30.7%) patients with a significantly lower prevalence among L-TMMR group, which resulted respectively 11.1% (p-value 0.022) and 13.3 % (p-value 0.036). The prevalence of constipation, sensation of incomplete bowel emptying and effort during evacuation were significantly higher among L-TMMR group resulting respectively 37 % (p-value 0.001), 42.3 % (p-value 0.012) and 50 % (p-value 0.039). 149 (70%) patients were sexually active. 58 women (38.9 %) reported low enjoyment, 83 (55.7%) medium enjoyment, 8 (5.4 %) high enjoyment without statistically significative differences among the four groups.

Conclusions
L-TMMR is associated with improved long-term urinary autonomic functions, and worse gastrointestinal autonomic outcome. Further larger prospective trials are needed to evaluate both the oncological and functional outcomes in order to establish the most appropriate surgical approach.

ES25-0262
BSA4

Study protocol HALON study: Hysterectomy by transabdominal laparoscopy or NOTES

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Background
To the best of our knowledge no randomised controlled studies comparing transvaginal Natural Orifice Transluminal Endoscopic Surgery (vNOTES) with the classical laparoscopic approach for hysterectomy have been reported in the literature. The objective of the HALON study is to compare vNOTES Hysterectomy with the established Total Laparoscopic Hysterectomy for the successful removal of a uterus for benign gynaecological pathology.

Methods
The HALON study is a randomized controlled, single-center, single blinded, parallel group, non-inferiority, efficacy study. The intervention is a vNOTES hysterectomy; the control is a total laparoscopic hysterectomy. The study population consists of all women aged 18-70, regardless of parity, with a benign indication for a hysterectomy. The surgeon (JBae) is not blinded. The participant, nursing staff and outcome assessors are blinded. To achieve this, non-therapeutic incisions are made in the vNOTES group. Standard pre-, peri-, and postoperative protocols are used. Patients are stratified according to the size of the uterus.

Results
The protocol of the HALON study has been registered with the National Institutes of Health at ClinicalTrials.gov: NCT02631837. The study is currently underway at the Imelda Hospital, Bonheiden Belgium. 66 patients will be included.

The primary outcome measure is the successful removal of the uterus with the intended approach without conversion to an alternative approach.

The secondary outcome measures are: proportion of women discharged on the same day, postoperative pain scores and analgesics used, postoperative infection, peri- and postoperative complications, hospital readmissions, duration of procedure, incidence of dyspareunia, sexual wellbeing, costs up to six weeks.

Conclusions
We will present the protocol of the HALON study. The results of the study are expected to be ready for publication in 2017.

ES25-0469
BSA4

Laparoscopic laterally extended endopelvic resection for deep-infiltrating endometriosis: case series

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Background
The involvement of the pelvic side wall due to the presence of endometriosic lesions is a rare event, which mimicks gynecological malignancies. In these patients, disease eradication can be achieved using the Laterally Extended Endopelvic Resection (LEER) technique. The feasibility of laparotomic LEER has been clearly demonstrated for gynecological cancer; however, no data have been reported regarding the safety, and efficacy of laparoscopic LEER (L-LEER) in patients with deep-infiltrating endometriosis (DIE).

Methods
We describe here the first consecutive series of 10 patients with DIE receiving L-LEER between January 2014 and January 2016 in 2 tertiary referral centers (Charitè University, Berlin, Germany, and Catholic University of the Sacred Heart, Foundation John Paul II, Campobasso, Italy). The LEER is a surgical technique firstly described for the treatment of recurrent or advanced gynecological cancers involving the lateral pelvic compartment. We considered in our experience L-LEER in all cases treated with a combination of at least two of the following procedures: total mesorectal excision, total mesometrial resection, and/or total mesovesical resection. In particular, L-LEER has been performed in all women with lateral fixation of DIE, showing the involvement of pelvic side wall, pelvic floor muscles (obturator internus, pubococcygeus, iliococcygeus and coccygeus muscles), and of internal iliac vessels system, thus requiring a multicompartimental resection. For all patients perioperative data have been recorded, and analyzed for study purpose.

Results
Between the study period, 10 patients with DIE involving pelvic side wall were admitted at our Institutions, and all women were triaged to receive L-LEER, which was successfully completed without conversion to laparotomy in all cases. To complete L-LEER median operative time required was 240 minutes (range, 180-300 minutes). The median estimated blood loss was 200 mL (range, 100-300 mL), and the median hospital stay was 10 days (range, 5-17days). No intraoperative complications were recorded. Postoperative complications were recorded in only 2 women (20%), which required long-lasting need of urinary self-catheterisation, with spontaneous resolution after 3 months from surgery. After a median follow-up of 6 months, we observed symptomatic relief for all study patients without major surgery-related morbidity.

Conclusions
DIE involving the pelvic side wall is a rare condition, ofter requiring surgical eradication. We demonstrate here the feasibility, and efficacy of L-LEER offering favourable results in terms of pain control, recurrence rate and post-operative morbidities.

ES25-0504
BSA4

Does pre-conception laparoscopic cervico-isthmic cerclage compare favourably with post-conception cerclages - results from the new international laparoscopic trans-abdominal cerclage (LapTAC) database and registry

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Background

Although first described in 1998, the UK National Institute for Health and Care Excellence (NICE) still classifies laparoscopic cervico-isthmic cerclage as a procedure with limited evidence for success and an uncertain safety record.

To strengthen available evidence by centralising data collection for its analysis and audit and for purposes of continuous clinical governance, we developed The LapTAC Project - a secure, encrypted, cloud based database system to serve as an international registry for all laparoscopic trans-abdominal cerclages.

We aim to present the development, validation and establishment of The LapTAC Project, and generated from this registry, we will also present the findings of the largest cohort study to date, comparing pre-conception (interval) and post-conception (non-interval) laparoscopic trans-abdominal cerclages from the Birmingham Women's Hospital, a regional centre.

Methods

The cohort includes, from years 2011 to 2015, all patients with suspected cervical incompetence with at least one failed vaginal cerclage or patients in whom vaginal cerclage was not feasible, who had an interval laparoscopic cerclage or were enlisted for a non-interval cerclage at 12 – 14 weeks of gestation.

Patients with other high risk factors of preterm labour and patients who had induced delivery for any maternal or fetal reasons, unrelated to labour or cerclage before 34 weeks, were excluded from the analyses.

The technique for all laparoscopic trans-abdominal cervico-isthmic cerclages was standardised and the placement was performed utilizing a needleless mersilene tape, after meticulous skeletonisation of the uterine vessels and formation of the peritoneal window. The Endo Close™ Device was used to pass the stitch and the knot was placed anteriorly.

Our primary outcome (delivery >34 weeks) and secondary outcome measures (intraoperative complications, post-operative complications, operative time and hospital stay) were analysed by ANOVA, Mann-Whitney U and regression analysis.

Results

48 pre-conception cerclages (IC) and 23 post-conception cerclages (CC) were included. One patient in CC and three in IC were excluded. Overall success (delivery >34 weeks gestation) was achieved in 59 out of 67 cases (88%). Two cases had spontaneous rupture of membrane in the CC group.

Conclusions
We found pre-conception (interval) laparoscopic cerclage more successful, with shorter operative time. Post-conception cerclages were associated with the risk of procedure related miscarriage of 5%.

Where laparoscopic skills are available, cervico-isthmic cerclage placed laparoscopically compares favourably with the laparotomy approach and should be integrated into clinical practice. It has the advantages of shorter hospital stay, quicker recovery and better cosmesis.

Any Gynaecological Endoscopist can register to gain instant access and contribute to the LapTAC database. It is user-friendly and easily accessible through any device. The thoroughly validated LapTAC database provides a secure, easy to use platform for data collection and analysis, simplifying the process of audit and review of clinical outcomes for patients undergoing laparoscopic cerclage.

ES25-0457
BSA4

A technique to reduce trendelenburg degree during gynaecological laparoscopic surgeries

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Background

Different Authors proposed to place an elevation under the patient's buttocks to reduce the angle of trendelenburg, providing good pelvis exposure.
The Purpose of this Study is to validate the efficacy of this technique.
The Trendelenburg position in awake and anaesthetised patients increases the pulmonary arterial pressure, central venous pressure and pulmonary capillary wedge pressure. It also increases the venous return and Cardiac Output. If the patient is placed in extreme trendelenburg, a decrease in venous return from the head may result, leading to increased intracranial and intraocular pressures. If this position is maintained for an extended duration, cerebral oedema and retinal detachment may occur. Moreover, as a result of venous stagnation, cyanosis and oedema in the face and neck may be expected.
Hence, our study aims to demonstrate a new technique which can help to reduce the angle degree of trendelenburg position, thereby reducing the adverse effects of prolonged decreased venous return from the head, as well as the cardiovascular and respiratory effects.

Methods

Study design: Prospective

Study Population/sample size:

50 patients undergone elective Gynecological laparoscopic surgeries in Latifa Hospital were studied. Patients were selected by case matching method, 25 patients were experimented with the new technique, against a control group of 25. On the operating table, the bottom of the patients were elevated using a pillow of uniform thickness, and the degree of trendelenburg was noted during the procedure. The operator was limited to 2 surgeons. Other parameters like the patient's Age, BMI, type of surgery, previous surgeries, Respiratory and cardiovascular parameters, surgery difficulties, postoperative shoulder and back pain and face oedema were also studied.

The study was conducted during a period of 6months from Dec 2015 till May 2016

Results

Among the experimental group, almost 100% of the patients required a trendelenburg degree of 0-8, to provide good pelvic exposure during the procedure. Most of them, 57% had a Peek inspiratory pressure (PIP) of 14- 25, while 42% PIP was >26 .

On the other hand, among the control group, 50% of the patients required a trendelenburg degree of 7, 38% were between 9-16 and the rest required above 16 degree for good pelvic exposure. Most of the patients (75%) sustained a PIP of >26, while the rest (25%) PIP was between 14-25.

Conclusions

This technique demonstrates the possibility to achieve good pelvis exposure during gynaecological laparoscopic surgeries, with less trendelenburg positioning degree for the patients, hence leading to less respiratory and cardiovascular effects.

This opens the door for more trials, to study this Hypothesis.

ES25-0214
BSA4

Augmented reality in a tumor resection model

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Background

The objectives of our study were to evaluate an Augmented Reality system, by surgical resection of a new model of laparoscopic experimental tumors.

Methods

We did a prospective, experimental study on ex vivo porcine kidneys. Alginate was injected ex vivo into the parenchyma (2 to 3 pseudotumors, depending on the kidney size). Alginate easily allowed us to create 4-10mm pseudotumors. The kidneys were then imaged by MRI (T1-weighted) in three planes (axial, sagittal and coronal). We improved the MRI settings to have a 0.4mm resolution, and pseudotumors were easily identified. Augmented Reality (AR) is a technology that allows a surgeon to see sub-surface structures in an endoscopic video. In our technique, three phases are necessary: Phase 1: segmentation phase: using the MRI images, the kidneys and pseudotumors' surface are delimited to construct a 3D mesh model. Phase 2: the intra-operative shape on the kidney is determined. Phase 3: fusion phase: pre-operative and intra-operative models are fused with the laparoscopic view. This blending gives the impression that the kidney is semi-transparent and the surgeon can see the exact location of the tumor inside it. On this 2D images, to improve the depth localization of the tumor the AR software allows one to display in real-time the kidneys' surface meshes in addition to inner tumor meshes. Our software also allows one to display the resection margins defined preoperatively by the surgeon (5mm margins in our model). The kidneys were put into pelvitrainers, and renal pseudotumors were resected laparoscopically. The excised tumors were extracted, and transferred to the laboratory until further analysis. Then resection margins were measured microscopically to evaluate the accuracy of the resection.

Results

In total, we segmented 90 tumors. 30 were used to test the AR software and improve the visualization, and the 60 others were surgically resected. 30 tumors were resected using AR, and 30 without AR. On the MRI images the mean kidneys' size was 74.4mm +/- 5.1, and the mean tumors size was 8.18mm +/- 2.6. Our preliminary results of pathological analysis showed 4% of positive margins in the AR group, and 12% without using AR.

Conclusions

Our AR system facilitates the accurate localization of very small inner tumors. AR in laparosurgery thus seems to enhance the accuracy of surgical resection, even for really small tumors. Crucial information (resection margins, vascularisation…) can be displayed. Therefore, our system could be use in various laparoscopic surgical procedures

ES25-0029
BSA4

Vaginal length after laparoscopic verses vaginal closure: A randomized trial

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Background
Despite the increasing numbers of total laparoscopic hysterectomies (TLH) being performed each year, randomized comparisons between laparoscopic versus vaginal cuff closure are lacking. The purpose of this study is to determine the change in vaginal length after TLH with laparoscopic cuff closure (LC) versus vaginal cuff closure (VC).

Methods
Randomized study of women undergoing TLH. Vaginal length was measured pre-operatively and then 6-12 weeks and 6-12 months postoperatively. The primary outcome was change in vaginal length. Secondary outcomes were vaginal vault dehiscence and cuff closure operative time. Analysis was per-protocol using Mann-Whitney U test and Wilcoxon signed rank test.

Results
68 patients were randomized, 34 patients were excluded due to inadequate follow-up, malignancy or alternative closure. No significant differences in age, BMI or parity were found. The median preoperative vaginal lengths were similar: LC 9.0 cm vs VC 9.25 cm; p= 0.23. The difference in median vaginal lengths at 6-12 weeks were: LC 9.0cm verses VC 8.9cm (p= 0.68). The median vaginal lengths at 6-12 months were both 9.5cm (P=0.94). When compared to the preoperative lengths, there were no significant differences at the 6-12 month evaluation. The cuff closure time was significantly longer in the LC group (20 min verses 8 minutes, $p < 0.05$). There were no cases of vaginal cuff dehiscence.

Conclusions
After total laparoscopic hysterectomy, the vaginal length at 12 months did not differ based on method of vaginal closure. Laparoscopic cuff closure times are longer than vaginal cuff closures and neither method had cases of vaginal cuff dehiscence.

ES25-0189
BSA4

Usefulness of ovarian cortex cryopreservation for fertility preservation: lessons from 600 cases

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Background
To review 600 cases of ovarian tissue cryobanking for fertility preservation, including indications, patients' outcome, ovarian function and reimplantations in order to evaluate the usefulness and efficiency of this technique.

Methods
Retrospective analysis of data from 600 patients who underwent ovarian cryobanking in an academic hospital between April 1997 and December 2015 associated with a prospective questionnaire study on ovarian function and satisfaction of those who underwent the procedure before January 2014.

Analysis includes indications for ovarian cryopreservation, complications, satisfaction and survival rates, ovarian function and pregnancies after the procedure, and incidence and outcomes of ovarian transplantation.

Results
Ovarian cortex cryopreservation was performed in this cohort at a mean age of 22,3 +/- 8,9 years for oncological indications (80%), gynecological benign pathologies (17%) and genetic risks for premature ovarian failure (3%). 30% of patients were less than 18 years of age at the time of cryopreservation. 9,2 % died from their disease. Fifteen patients underwent auto- transplantation and 5 of them obtained together 7 pregnancies. Only 32% of patients agreed to participate at the questionnaire study (143/451). Based on this questionnaire, 20% present with premature menopause. 44% of women have actual proof of persistent ovarian function. In the remaining 36%, evaluation of ovarian function is not possible due to use of hormonal treatment. 79% of women who tried to become pregnant succeeded and 62% gave birth. 94% of patients were satisfied about the procedure and only one major complication occurred. Eleven percent of patients have abandoned their ovarian cortex for research or destruction.

Conclusions
Although only 2.5% of our patients came back for ovarian transplantation and 1% became pregnant through the whole procedure, at least 20% of patients will present early premature ovarian failure. The useless procedures are compensated by a huge satisfaction rate of 94% and very small complication rates.

ES25-0353
BSA5

The performance gap for gynecology residents in transfer of intracorporeal suturing skills from box trainer to operating room

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Background
Laparoscopic box trainer improves suturing skills in the operating room (OR). Optimal laboratory training should provide trainees with an adequate skill level that can be transferred to the OR with no decline in performances. The primary objective of this study was to prospectively compare OR suturing performances of residents who trained with a FLS box trainer versus those of experienced senior laparoscopists. The secondary objective was to determine the correlations between the various quantitative and qualitative assessment methods for laparoscopic suturing.

Methods
Twelve gynecology residents received training with FLS box trainer over a period of 4 months. Their performances with the box trainer and in the OR were then compared with those of 6 experienced surgeons. OR assessment took place during a laparoscopic myomectomy. The evaluation of performance was based on the time taken to perform a suture and two validated qualitative assessment tools (GOALS and the Moorthy checklist). A non-parametric Wilcoxon signed-rank test was employed to analyze pair-wise data and a non-parametric Mann–Whitney U test was employed to analyze independent data. Correlations between measurement tools were determined by Spearman correlation coefficients.

Results
Following the FLS training period, performances of residents with the box trainer were equivalent to those of the experienced surgeons. When tested in the OR, the trained residents performed more slowly than experienced surgeons (279.75s vs. 159.75s; p=0.001) and they obtained lower qualitative outcomes, in terms of GOALS score (13 vs. 16.75; p=0.002) and checklist score (18.25 vs. 21 p=0.049). Transfer from the box trainer to the OR revealed an increase in time taken that was significantly higher for the trained resident's group than for the experienced group (137.25s vs 48.75s; p<0.001). The time taken in the OR was inversely correlated with the qualitative GOALS assessment score (rho= - 0.897; p<0.001) and the checklist (rho= - 0.703; p=0.001).

Conclusions
A performance gap emerged between trained residents and experienced surgeons when transferring from the box trainer to the OR. Finding an intermediate training platform between the box trainer and independently performing sutures in the operating room is hence warranted.

ES25-0044
BSA5

Fertility outcomes after ablation using plasma energy compared with cystectomy in women with ovarian endometrioma

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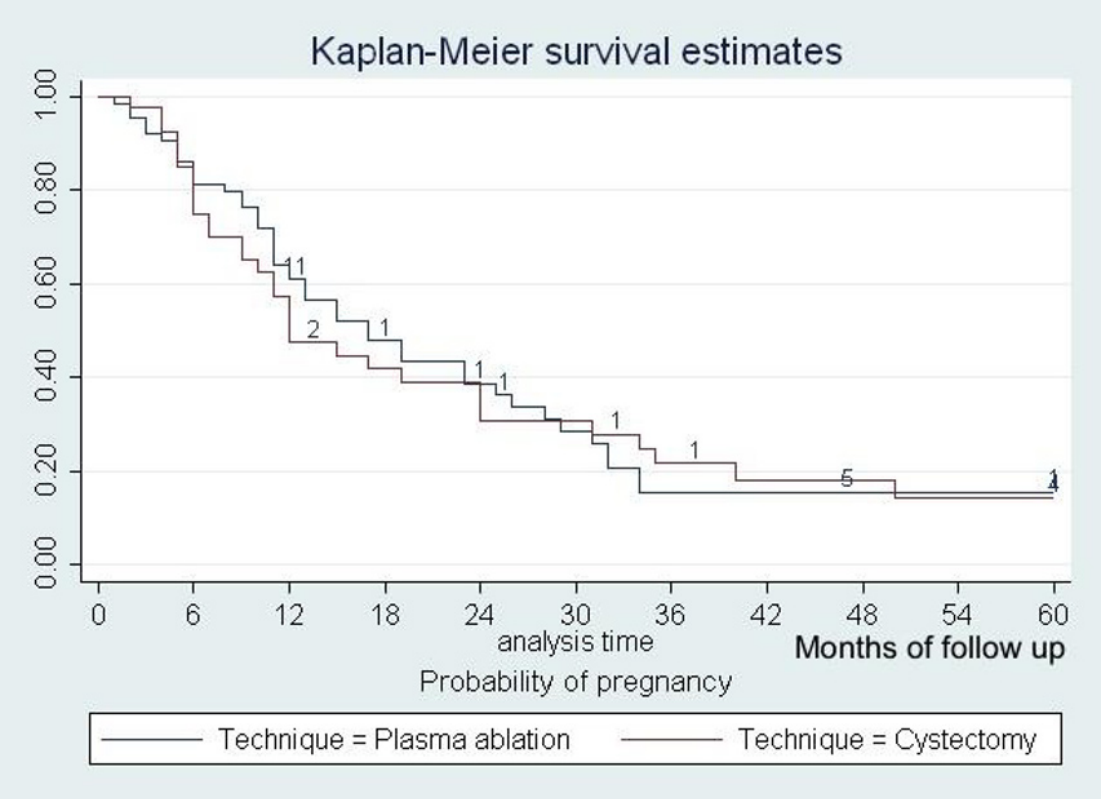
Background
Endometrioma ablation using plasma energy allows good postoperative pregnancy rates, however studies comparing this technique with endometrioma cystectomy have not been reported.

Objectives: To compare the probability of postoperative pregnancy in infertile women with ovarian endometrioma larger than 3 cm in diameter, managed by either ablation using plasma energy or cystectomy.

Methods
We performed a multicentric study enrolling 104 infertile patients managed for ovarian endometrioma larger than 3 cm diameter: 64 patients underwent ablation using plasma energy (cases) and 40 underwent cystectomy (controls). Patients were enrolled in CIRENDO prospective cohort database (NCT02294825) from June 2009 to June 2014 and managed in six different facilities. The minimum length of follow up was 1 year. Postoperative probabilities of pregnancy in cases and controls were estimated using Kaplan Meier method with 95% confidence intervals, and compared using the Log-Rank test. The Cox model was used to assess independent predictive factors for pregnancy.

Results
Mean follow up was 35.3 ± 17.5 months (range 12 to 60 months). Patients managed by plasma energy were significantly older than patients managed by cystectomy, had significantly higher overall rAFS score and higher rate of Douglas pouch obliteration, deep endometriosis and colorectal localizations. Fertility outcomes were comparable. During the follow-up period 76 pregnancies were recorded (73.1%). Twenty-four pregnancies were due to spontaneous conception (31.6%) more frequently in plasma energy group: 18 cases (40.1%) vs. 6 (18.8%). The probability of pregnancy at 24 and 36 months after surgery in plasma energy and cystectomy groups was respectively 61.3% (95%CI 48.2-74.4%) vs. 69.3% (95%CI 54.5-83%) and 84.4% (95%CI 72-93.4%) vs. 78.3% (95%CI 63.8-90%)



Conclusions

Postoperative pregnancy rates were comparable after management of ovarian endometrioma by either ablation using plasma energy or cystectomy despite an overall higher rate of unfavorable fertility predictive factors in women managed by ablation.

ES25-0372
BSA5

A randomized study comparing conventional laparoscopy and transvaginal hydrolaparoscopy to reduce ovarian adhesion formation after ovarian drilling

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Background
Polycystic ovary syndrome (PCOS), is a common endocrine disorder affecting women in the reproductive age, with a prevalence rate of 17-20% . Clomiphene citrate (CC) still remains the first line treatment for ovulation induction (OI) in PCOS patients. Approximately 20% of PCOS patients are described as "clomiphene-resistant" and in these patients ovarian drilling is a valid alternative to ovulation induction. Aim of our study was to compare conventional laparoscopic ovarian drilling (LOD) with transvaginal hydrolaparoscopy (THL) ovarian drilling in terms of ovarian adhesion formation, evaluated using office THL during follow up in CC-resistant anovulatory patients affected by PCOS

Methods
Prospective randomized study on 246 patients CC-resistant women with PCOS The patients enrolled were divided into two groups, 123 were scheduled to undergo LOD and 123 to undergo THL ovarian drilling. Six months after the procedure all patients were offered to undergo office transvaginal hydrolaparoscopy (THL) follow-up , under local anesthesia to evaluate adhesions formation

Results
Duration of the procedure was significantly shorter in the THL group in comparison with LOD group ($p < .0001$). No intra- or post-operative complication was observed in any patients in both groups. Post-operative THL follow-up after 6 months showed that 15 (15.5%) patients in the THL group and 73 (70,2%) in the LOD group showed the presence of ovarian adhesion. This difference was highly significant with a p value $< .0001$ and a relative risk of 0.22 [95%IC 0.133-0.350] .

Conclusions
Postoperative adhesions have become the commonest complication of surgery and a source of major concern because of their potentially dramatic consequences. The recent European Guidelines (2012) indicated the good surgical strategy to reduce adhesion formation as to reduce pressure and duration of pneumoperitoneum in laparoscopic surgery ,to use frequent irrigation and aspiration when needed and reduce the time of surgery . THL was developed as a less invasive alternative to conventional laparoscopy. THL may be considered as a less traumatic and more suitable procedure than diagnostic laparoscopy. THL with ovarian drilling using bipolar electrosurgery has been considered an alternative to conventional laparoscopy. Our data showed that THL ovarian drilling is less adhesiogenic than LOD . We don't know the exact mechanism through which THL seems to induce adhesion in a lower proportion of patients but we hypothesized that the use of saline solution instilled into the peritoneal cavity during THL, the shorter duration of the procedure and avoiding the creation of pneumoperitoneum may contribute to this reduction. This study seems to indicate that THL ovarian drilling may reduce the risk of ovarian adhesion formation and could be used as a safe and effective option to reduce ovarian adhesion formation in patients undergoing ovarian drilling

ES25-0004
BSA5

Cervicovaginal reconstruction in patients with congenital malformation of cervix, using split thickness skin graft or acellular porcine small intestinal submucosa graft: a prospective, comparative study

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Background

Müllerian agenesis is caused by embryologic growth failure of the müllerian duct, with resultant agenesis or underdevelopment of the vagina, cervix or uterus. Patients with congenital atresia of cervix and a functional endometrium will present with cyclic pain and/or pelvic mass. Symptoms of cyclic abdominal pain and a pelvic mass often necessitate surgical procedures performed in adolescence to preserve fertility and avoid genital complications such as tube lesion, adhesions, or endometriosis. Hysterectomy is typically recommended in the last century. With advances in surgical techniques, reconstructive procedures using some autologous tissues or heterologous biological graft make fertility preservation possible for some patients.

Methods

This was a prospective, single-center comparative study of 26 women with malformation of the cervix diagnosed by physical examination and magnetic resonance imaging from January 2012 to October 2015 in our hospital. 15 women underwent cervicovaginal reconstruction using acellular porcine small intestinal submucosa (SIS) graft and 11 women underwent cervicovaginal reconstruction using split thickness skin (STS) graft. Surgical procedures were carried out at the end of menstruation by the same operation team. Patients were assessed post-operatively at 1, 3 and 6 months, and then followed up annually. Clinical characteristics, perioperative data, resumption of menstruation, vaginal stenosis, length of neovagina, stricture of the cervix and body image postoperatively were accessed.

Results

At the median follow-up of 21 (2-46) months, all patients except one of them relieved their abdominal pain and showed resumption of menstruation. Haematometra was not found on transvaginal ultrasonography in these patients. Re-obstruction of cervix occurred in only one patient in SIS group due to defluxion of Foley catheter at 3 months post-operation, even though there was no stricture of the neovagina. The hospital stay post-surgery of STS group was a little longer than that of SIS group. Vaginal mould was weared for vaginal dilation postoperation for 18 months in SIS group and 3 months in STS group. Duration of cyclic abdominal pain positively correlated with AFS score of endometriosis. The SIS group reported significantly higher body image and cosmetic satisfaction at the expense of higher operation cost. Even the vaginal length was similar at 3 month post-surgery, but it was significantly shorter in SIS group at 6 months follow-up (6.5±0.7cm in SIS group versus 8.0±0.5cm in STS group).

Conclusions

Combined laparoscopic and vaginal cervicovaginal reconstruction using SIS or STS graft are both safe and effective treatments in women with malformation of the cervix. The advantages of a long-lasting improved body image and cosmesis for this relatively young patient population may compensate for the higher costs and longer vaginal mould wearing in SIS group. However, relationships with partner, satisfaction with sex life and pregnancy rates and outcome after the two approaches should be evaluated in the long-term follow-up.

ES25-0354
BSA5

Polyglecaprone polypropylene mesh reduces medium term graft related complications in laparoscopic sacrocolpopexy

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Background

To compare the occurrence and nature of Graft Related Complications (GRC) at medium term in two prospective consecutive cohorts (n=123) of patients who had laparoscopic sacrocolpopexy (LSC) with a polypropylene (PP) or a hybrid polypropylene-poliglecaprone mesh (PG+PP).

Methods

Single centre prospective study of consecutive patients undergoing LSC, with either a “standard” PP (Gynemesh®, Prolene, Ethicon, weight 80-85 g/m2), which was later replaced by a lighter PG+PP (Ultrapro®, Ethicon, weight after resorption poliglecaprone: 28-32 g/m2). Primary outcome measure was the occurrence of GRC, co-primary outcomes were the time point of occurrence of the GRC, its nature according tothe IUGA classification, and reinterventions for GRC. Patients were assessed with an interview and whenever possible by physical examination. Exposures were first treated with local antibiotics and estrogens, in symptomatic patients followed by surgical management . Data are reported as mean (SD), median (IQR), number and %, as appropriate. Student t-test, Chi square Fisher exact and survival analysis were used. We additionally determined the status of all patients 24 months after the initial operation for the primary outcome and occurrence of GRC.

Results

In total 106 (86.2%) patients with a PP+PG mesh and 98 (79.7%) with a PP mesh consented (participants; p=0.175). There were no differences between the participants and patients declining reassessment. In participants, physical assessment was possible in 69 (56.1%) PP+PG and 70 PP (56.9%; p=0.898) patients. Because of the study design, the median follow up in PP+PG was 56 (28-84) months compared to 97 months (80-114; p<0.001) in PP-patients. At clinical examination there was a striking difference in GRC-rate: 2.9% (n=2) in the PP+PG and 28.6% (n=20) in the PP patients (p<0.0001). Reoperation rate for GRC in these was 1 (1.4%) resp. 13 (18.6%; p=0.001). The occurrence of GRC at 24 months was 2 (2.9%) respectively 9 (12.8%) GRCs; all were symptomatic (p=0.03). GRCs within 24 months in the PP+PG group occurred at 7.5 months (SD 7.7; range2-13) compared to 11.5 months (SD 5.4; range 5-21) in the PP group (p=0.293). There were 0 (PP+PG) versus 8 (11.4 %; PP) (p=0.004) reinterventions respectively for any GRC, including 0 and 5(62.5%) exposures, which were all initially treated with local agents.
In all study participants, hence also including those undergoing an interview, the reintervention rate for GRC in the PP+PG was 0 % and 9.2 % in the PP group (p=0.004).

Conclusions

Despite similar subjective (PGIC) and anatomical outcomes, there were significantly less GRC at 24 months follow up when a hybrid light weight PP+PG mesh was used rather than a standard heavier PP mesh.

ES25-0421
BSA5

Update of vaginal erbium laser treatments for pelvic floor dysfunction and genitourinary syndrome of menopause

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Background
The aim of this paper is to present an update of the novel laser technology utilizing Erbium YAG laser for various minimally invasive non-surgical procedures in gynecology. Non-ablative, thermal-only Smooth mode erbium pulses are used to produce vaginal collagen hyperthermia followed by collagen remodeling and the synthesis of new collagen fibers, resulting in improved vaginal tissue tightness and elasticity. This erbium laser technology is used for treatments of vaginal relaxation syndrome (VRS), stress urinary incontinence (SUI), pelvic organ prolapse (POP) and genitourinary syndrome of menopause (GSM).

Methods
In the period from 2010 to 2016 quite some clinical studies covering each of four indications: VRS, SUI, POP and GSM were conducted with an aim to prove the efficacy and safety of this novel technology. An overview is presented of the results of these studies where several objective as well as subjective assessment tools were used.

Results
Thirteen studies (having in total 572 patients) reported about the erbium laser treatment of VRS and measurements of its efficacy and safety. The tools used were dimensional measurements using wooden measurement stick (for longitudinal) and MRI images (for cross section dimensions), perineometric pressure changes and questionnaires: PISQ12, FSFI and 3 and 4 grades Likert scales. 22 studies (with total of 1316 patients) reported about erbium treatment of SUI. Tools used were: urodynamics, 1h pad test, 3D voiding diary, Q-tip, ICIQ-UI, UDI-6, IIQ-7. GSM was clinically validated in 7 studies (380 patients included) and efficacy was evaluated with: maturation value, pH, VAS for atrophy symptoms, histology, VHIS, FSDS-R. Six studies (with 145 patients) studied POP improvement after erbium laser treatment. POP grading was done with POP-Q and Baden-Walker scales. All used tools showed significant improvement of measured values. The treatment discomfort for all of these four protocols was very low (the maximum score was 3 on a 10-grade scale) and a large majority of the patients assessed their improvement very positively. There were no adverse effects of these treatments reported.

Conclusions
The results have shown that Smooth mode erbium laser seems to be an effective and safe method for treating vaginal relaxation syndrome, stress urinary incontinence, pelvic organ prolapses and genitourinary syndrome of menopause.

ES25-0364
BSA5

Locally advanced cervical cancer: the importance of paraortic lymphadenectomy and PET-CT

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Background
The incidence of extrapelvic disease in pacients with Locally Advanced Cervical Cancer (LACC) is around 10-30%. The most important pronostic factors are the tumoral stage and ganglionar metastasis, specially in the paraortic area. PET-CT is superior to other imaging modalities for lymph node status and distant metastasis.
The objective of the study is to evaluate how PET-CT and paraortic lymphadenectomy assess paraortic lymph node status in LACC.

Methods
Retrospective study of pacients diagnosed of LACC (Stages IB2- IVA), without evidence of distant metastasis from the introduction of PET-CT in Hospital Sant Pau in Barcelona.

From May 2011 to November 2015, 26 pacients were diagnosed of LACC. They were studied preoperatively with pelvic MRI and PET-CT and a laparoscopic paraortic lymphadenectomy from common iliac vessels to left renal vein was performed to all of them. 9 patients (35%) had a intraperitoneal approach and 17 patients (65%) had a retroperitoneal approach. Hystologic subtypes were squamous cell (66%), adenocarcinoma (23%) and adenosquamous (11%). Tumor stage were: Stage I (4%), Stage II (61%), Stage III (26%) and Stage IV (9%).

Results
Median number of lymph nodes obtained were 19 nodes (range: 4-40) in intraperitoneal apporach and 17 nodes (range: 6-41) in retroperitoneal approach.

Median age was 56 years (range: 36-77) and median BMI 26 (range: 17-38). Median surgical time was 142 min (range: 90-275) and median blood loss 126 mL (range: 50-500). Only one pacient required blood transfusion and no conversion to laparotomy was recorded. Two intrasurgical complications were observed: One lesion of Left Renal Vein resolved with hemoclips and one obstruction of a polar artery. Two post-surgical complications were observed: One patient was reoperated with the suspiction of a bowel lesion (which was not confirmed) and the sobreinfection of a lymphocist needed a radio-guided drainage.

10 patients (38,5%) had paraortic nodal involvement and only one of them had a positive PET-CT. In the other 9 patients, 5 (23%) had a suspicious uptake in pelvic but not in the paraortic area, and 4 (11%) had no suspicious uptake neither in the pelvic nor in the paraortic area.

False-negative results (in the paraortic region) were recorded in 36% of patients, rising to 50% in those with uptake during PET-CT of the pelvic nodes.

Conclusions
Surgical staging lymphadenectomy should be mandatory when no uptake is recorded in paraortic nodes on PET-TC, allowing optimisation of treatment (extension of radiation therapy fields to include the paraortic area).

Laparoscopic paraortic lymphadenectomy is a feasible approach with reasonable intra and post-surgical complications.

ES25-0216
BSA5

RCT to compare proximal tubal occlusion with essure devices versus laparoscopic tubectomy as a treatment for hydrosalpinges

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[1]Spaarne Gasthuis, Obstetrics and gynaecology, Haarlem/Hoofddorp, The Netherlands
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[3]VU University Medical Centre, Epidemiology and biostatistics, Amsterdam, The Netherlands

Background

Does hysteroscopic proximal tubal occlusion by intratubal devices as treatment for hydrosalpinges result in comparable ongoing pregnancy rates following IVF/ICSI as compared to laparoscopic salpingectomy?

Methods

A two-centre, in- and outpatient treatment units of an academic and non-academic training hospital, randomized controlled non-inferiority trial between October 2009 and December 2014. Randomization was based on a computer generated randomization list. The study was unblinded. Primary outcome was ongoing pregnancy rate, defined as a fetal heartbeat on ultrasound beyond 10 weeks gestation following one IVF/ICSI treatment (fresh and frozen-thawed embryo transfers). Women aged 18-41 years, with uni- or bilateral ultrasound visible hydrosalpinges who were scheduled for an IVF/ICSI treatment. A total of 85 women were included. 42 Patients were randomized to hysteroscopic proximal occlusion by intratubal device placement (outpatient) and 43 patients to laparoscopic salpingectomy (inpatient).

Results

The ongoing pregnancy rates per patient according to the intention to treat principle were 11/42 (26.2%) after hysteroscopic proximal occlusion by intratubal devices (intervention group) versus 24/43 (55.8%) after laparoscopic salpingectomy (control group) (p= 0.008) (absolute difference 29.6%; 95% confidence interval (CI) 7.1 to 49.1, relative risk (RR) 0.47 95% CI 0.27– 0.83, p=0.01). In the per protocol analysis the ongoing pregnancy rate per patient following hysteroscopic proximal occlusion by intratubal devices was 9/27 (33.3%) compared to 19/32 (59.4%) following laparoscopic salpingectomy (p=0.067) (absolute difference 36.1%; 95% CI-1.8 to 50.0, RR 0.56; 95% CI 0.31 to 1.03, p = 0.062).

Conclusions

Hysteroscopic proximal tubal occlusion by intratubal devices is inferior to laparoscopic salpingectomy in the treatment of hydrosalpinges in women undergoing IVF/ICSI with respect to ongoing pregnancy rates.

SELECTED ABSTRACTS FOR VIDEO PRESENTATION (10)

ES25-0033
Best Selected Videos

Complications of laparoscopy – easier prevent than treat

Krzysztof Galczynski[1], Benoit Rabischong[1], Nicolas Bourdel[1], Michel Canis[1], Revaz Botchorishvili[1]
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Background

With increasing adoption of laparoscopic surgery in gynaecology, there has been a corresponding rise in the types and rates of reported complications. This video concentrates on general complications of laparoscopy and methods of its prevention.

Methods

We present six different complications of laparoscopy. Each case is accompanied by comment about our experience in prevention of this complication and epidemiological data. All operations were performed in the Department of Gynecological Surgery Estaing Hospital in Clermont Ferrand (France).

Results

First two complications are related to the technique of abdominal entry. In the first case we present retroperitoneal hematoma which occurred after punction of one of great vessels with Veress needle during abdominal entry through umbilicus. Although abdominal entry in left hipochondrium seems to be safer option, may be also associated with complication - stomach injury - which we present subsequently. Third case shows herniation of great omentum in site after 10mm trocar and afterwards technique of fascia closure with Berci needle. Complications presented in next two cases occurred due to unproper identification of anatomical structures. Obturator nerve was cut after mistakenly recognition as a umbilical artery during dissection of paravesical fossa. In turn, previously dissected ureter was injuried during extraction of a bag with specimens through vagina. Last case presents complication related to the use of monopolar energy which occurred due to direct coupling.

Conclusions

In our opinion knowledge of anatomy, advanced laparoscopic skills, carefull dissection, knowledge of principles of electrosurgery, concentration and team cooperation during whole procedure may help to decrease risk of complications during laparoscopy. Prevention of complications should be always a priority, because some of them may cause long-term consequences or be life threatening conditions.

http://player.vimeo.com/video/163434937?autoplay=1

ES25-0019
Best Selected Videos

Laparoscopic extraction of a retained sponge

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Background

The objective of the video is to present a minimally invasive approach to removing larger foreign bodies. The case presented in the video is a 29 year-old female G_4P_0 who went to the Emergency Room complaining of severe pelvic pain. She had a history of a left ectopic pregnancy that was treated with laparotomy and left salpingectomy 7 months previously in her native country of the Democratic Republic of the Congo. She was not currently pregnant. In the Emergency Room, a CT scan of the abdomen and pelvis was performed which showed a radio-opaque object in the posterior cul-de-sac of Douglas.

Methods

The patient was scheduled for and underwent a diagnostic laparoscopy and removal of the foreign body.

Results

After significant enterolysis and lysis of adhesions in the abdomen and pelvis, a purulent cavity was entered and a retained Ray-Tech sponge was found. The sponge was placed in a LapSac specimen retrieval bag and removed from the abdominal cavity through the umbilicus.

Conclusions

The purulent fluid surrounding the sponge was cultured, but contained no organisms. The patient had an excellent postoperative course and was discharged to home the next day.

http://player.vimeo.com/video/159278616?autoplay=1

ES25-0284
Best Selected Videos

Use of anatomical spaces in deep infiltrative endometriosis

Victor Gabriele[1], *Lise Lecointre*[1], *Anne-Julie Carin*[1], *Marco Puga*[1], *Arnaud Wattiez*[1], *Olivier Garbin*[1]
[1]*University hospital of Strasbourg, Gynecology, Strasbourg, France*

Background

These spaces are very useful since they allow performing deep endometriosis surgery with safety rules. To know where they are and how to open them is fundamental in the operative strategy.

Methods

The aim of this video, was to present the different anatomical pelvic spaces which can be dissected and used in deep endometriosis surgery.

Results

1) Paravesical space:

Paravesical space is often opened to perform pelvic lymphadenectomy.

Its landmarks are umbilical artery medially, iliac vessels laterally and obturator nerve in depth.

2) Pararectal Latzko space:

Pararectal space is separated from paravesical space by the paracervix. This space is divided in Latsko and Okabayashi spaces by the ureter.

Latzko's space is developed between the ureter & the pelvic wall when opening the space between internal iliac artery (lateral) and the ureter (medial).

3) Pararectal Okabayashi space

Okabayashi's space is developed dividing the connective tissue between the ureter (lateral) and the posterior leaf of the broad ligament (medial) and opening the space between the recto-uterine ligament and meso-ureter.

4) The 4th Space:

The 4th space is exposed between the superficial layer of the vesico-cervical ligament and the ureter, it should be located between the lateral side of the vagina and a deep layer of the vesico-uterine ligament.

These spaces can be very useful to perform ureterolysis in deep endometriosis.

5) Recto vaginal space:

The recto vaginal space is opened between the vagina and the rectum.

In case of recto-vaginal endometriosis the development of this space should begin laterally.

6) Application in practice:

The development of the different spaces allows performing the safe resection of a big recto-vaginal endometriosis node.

Conclusions

The dissection and development of the anatomical pelvic spaces is of main importance no matter the surgical approach, technique or instrument utilized.

http://player.vimeo.com/video/169461890?autoplay=1

ES25-0317
Best Selected Videos

Heos® (hysteroscopy endo operative system): mechanical hysteroscopic operative procedure

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Background

Due to the increasing awareness of the risks related to operative hysteroscopy, mainly synechiae and electric damages, mechanical energy is regarded as an option. office operative 14.9 Fr hysteroscope using 5 Fr tools are widely used but are often limited by the size or the hardness of the lesions.

Methods

We are presenting here our two-years experience using an innovative 27 Fr operative hysteroscope registered as heos®. this system, using 3 mm tools, can be regarded as an effective solution for polyps, synechiae, uterine septum and fibroids. most procedures are performed under local anesthesia in a one-day surgery department. We use saline infusion with a regular hysteroscopic pump and intra uterine pressure is monitored < 100 mm Hg.

Results

Cervical dilation to 27 Fr is needed to introduce the hysteroscope and enables to extract entire lesions through the cervical channel without limitation of size for the polyps. as the consistency of fibroids is harder, lesions limited to 20 mm only can be extracted without morcellation in our experience. as can be seen in the video complete hemostasis can be achieved without any electric additional coagulation. because there is no need of electric power the risks in case of perforation is reduced. as endometrial damages are avoided this may lead to a better healing and thus reduce the incidence of post operative synechiae. Indeed as we performed diagnostic hysteroscopy to control the cavity 4-8 weeks post operative, we could observe a perfect healing result in most cases. this is particularly important for younger patients for whom fertility preservation is a major goal. after a short learning curve most operations are carried out under local anesthesia. this enables « see and treat » strategy during one -day surgery procedure which permits patients to quickly resume to normal activity.

Conclusions

heos® is an innovative mechanical concept which may be regarded as an option in the operative hysteroscopic field. Reducing endometrial damages and electric hazards may help to increase safety and fertility preservation. additional benefits for the patient can be expected when performed under local anesthesia.

http://player.vimeo.com/video/169523708?autoplay=1

ES25-0502
Best Selected Videos

The new, easy and fast method of removing large polyps from the uterine cavity in minihysteroscopy

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Background

Minihysteroscopy is the gold standard in diagnosis and treatment of uterine cavity abnormalities. In some cases resection of a polyp is quite easy, but it is difficult to remove it from the uterine cavity. In such cases the polyp is cut into small parts and they are removed one by one. However, that procedure is not always easy to perform and sometimes it takes a long time, what can be a problem especially during an office procedure without anesthesia. Our new method of extracting large tissue fragments from the uterine cavity is an easy and safe alternative to traditional procedures.

Methods

Before the hysteroscopy a transvaginal ultrasound examination was done. The procedure was performed in ambulatory setting using a 4mm continuous-flow hysteroscope and the vaginoscopic approach, without anesthesia. After reaching the uterine cavity, the polyp pedicle was cut with the Versapoint Gynecare electrode. Next, the crioprobe was introduced and placed into the polyp tissue. Then the hysteroscope, together with the probe and the sticked polyp, was removed from the uterine cavity.

Results

The cryoprobe is a safe and easy to use device for removing large tissue fragments from the uterine cavity. It reduces the time of the procedure and the pain sensations.

Conclusions

The cryoprobe offers the possibility of a safe and successful removing of large tissue fragments from the uterine cavity. In case of the polyps situated in a difficult locations (i.e. close to the tubal ostia), it can be used to twist the polyp before the removal (no need to use an electrode or scissors). This minimally invasive device can be used in office setting , avoiding more invasive and traumatic approaches (e.g. using resectoscope to remove the large polyps). Using of the crioprobe reduces the time of the procedure and makes it less traumatic for the uterine cavity

http://player.vimeo.com/video/170538886?autoplay=1

ES25-0095
Best Selected Videos

In-bag morcellation of fibroids and large fibroid uterus using the MoreCellSafe device

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Background

Minimally-invasive hysterectomy and myomectomy are beneficial in terms of pain control, infection risk, faster recovery and return to work compared with open procedures (Liu FW, AJOG 2015). However, laparoscopy necessitates morcellation to extract the tissues from the abdomen. The inherent risk of morcellation is the spread of tissue parts in the abdominal cavity which can have devastating consequences if the tissue proves to be malignant. Since a preoperative assessment of malignancy can only be an appraisal (Parker W, JMIG 2016), surgical alternatives like laparotomy, mini-laparotomy, colpotomy, vaginal morcellation or morcellation in a bag have to be reviewed (Liu FW, AJOG 2015; Siedhoff MT, AJOG 2015). The risk of tissue spread has to be opposed to the risks of open surgery including increased morbidity and mortality (Siedhoff MT, AJOG 2015). Yet, combining laparoscopy with safe extraction procedures would be most optimal. This video shows morcellation in the MoreCellSafe bag (A.M.I., Austria) which prevents tissue spread.

Methods

Case 1: The 34 year old patient presented with a rapidly growing mass in the posterior uterine wall auf 7 cm size. Her further history was uneventful.
Case 2: The 42 year old patient presented with a symptomatic fibroid uterus reaching the right costal arch. She was treated with Ullipristalacetate for 3 months preoperatively. Her further history was uneventful and she desired no children.

Results

Case 1: The video shows laparoscopic myomectomy with temporary clipping of the uterine arteries and morcellation in the MoreCellSafe. Histology results showed leiomyoma.
Case 2: This video shows laparoscopic hysterectomy with bilateral salpingectomy and morcellation of the 830g uterus in the MoreCellSafe. Histology showed multiple benign leiomyomata.

Conclusions

The video shows step-by-step use of the in-bag morcellation process using the MoreCellSafe device. It can not only effectively be used for spread-free morcellation of fibroids but even large uterus can be extracted safely.

http://player.vimeo.com/video/169861170?autoplay=1

ES25-0121
Best Selected Videos

Use of foley catheter to determine the isthmocele during laparoscopic repair of cesarean scar defect

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[2]Aciadem University, Obstetrics and Gynecology, İstanbul, Turkey

Background

Uterine isthmocele also known as cesarean scar defect or nishe, is resulted from a defective healing of the myometrial defect after low uterine transvers cesarean section. It cases a reservoir-like pouch defect that accumulates the menstrual bleeding and may cause symptoms including abnormal uterine bleeding, infertility, pelvic pain, and scar pregnancy. Although there is no standardized treatment, laparoscopic repair of the defect comes into prominence. To repair the defect, the utero-vesical peritoneal fold is incised and the bladder is mobilized off the lower uterine segment. The uterine defect is then identified and incised. Isthmocele cavity is then accessed. Margins of the pouch are then debrided and the edges are surgically re-approximated. During this surgery, identifying the isthmocele from the abdomen is one of the challenging steps.

Methods

In this report we describe a use of foley catheter to identify the isctmocele. To do this, after mobilizing the bladder off the lower uterine segment, a foley catheter was inserted into the uterine cavity through cervical canal. The balloon of the foley was then filled at the lower uterine segment under the laparoscopic view. By this way, pouch of the isthmocele was clearly identified.

Results

Identification of the cesarean scar defect which is also one of the most challenging steps for the repair of isthmocele, may be facilitated with the use of foley catheter.

Conclusions

Although the treatment of the uterine isthmocele has not been standardized yet, we offer the use of foley catheter at least to determine the exact position of the defect.

http://player.vimeo.com/video/166790490?autoplay=1

ES25-0472
Best Selected Videos

Deep urinary endometriosis with big endometrioma - management of a difficult case

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[1]University hospital of Strasbourg, Gynecology, Strasbourg, France

Background

We report the case of a 29 years old patient who has already been operate in 2012 by laparoscopy. Partials cystectomies and kystectomy of endometriomas has been performed.

Then she had a pregnancy.

After delivery, the patient didn't reports symptoms but a deep urinary endometriosis with a big nodule witch involved bladder, left parametrium and left ureter has been diagnosed by imaging. There was a left uretero-hydronephrosis with a normal renal function at renal scintigraphy.

The patient would like to have an other child.

The last MRI show a 4 x 2,5 cm nodule with bladder involvement, a nodule of parametrium and 2 endometriomas of 5 and 11 cm.

Methods

Pr WATTIEZ and Dr FALLER were the surgeons.

Double J stents has been placed before surgery.

Bettochi uterine manipulator has been used.

Results

First of all, due to the size of the 11 cm cyst we decided to puncture this big endometrioma immediately with the port.

Then adhesiolysis with liberate the right ovary and break the endometrioma.

Exposure was performed by suspension of the 2 ovaries by T-LIFT advices and detaching the sigmoid.

We begin the surgery with the left ureterolysis by developing the latero ureteral and the left parectal spaces.

Since the left parametrium nodule involved the ureter at the level of the ureteric canal, we decided to open the left paravesical fossa in order to decrease the among of uncertainty.

We found a nodule witch involved the dome of the bladder. For better exposition the round ligament is cut. Then we finish ureterolysis with an anterior approach at the level of large ligament. Then we go back to the posterior approach and open the 4th space. Due to the fixed aspect of the bladder, a re-implantation of the ureter with psoas hitch seems to be very difficult. The ureter is totally free until his insertion in the bladder. That's why we decided to perform a total ureterolysis without resection.

The parametrium nodule is resected with an opening of the vagina wich is sutured.

For the bladder nodule a shaving is performed with effraction of the cavity.

A cystectomy of the 2 endometriomas is performed and the round ligament sutured.

Since the patient was really slim, we weren't able to perform an omentoplasty.

Discussion :

In this case, the bladder was too fixed because of the previous surgery. That's why weweren't able to perform a psoas hitch. We decided per operatively to do a total ureterolysis.

Omentoplasty was impossible, but the patient didn't have any complications.

Conclusions

The strategy for managing difficult urinary endometriosis cases is really important.

Follow the rules :

Exposure

Know and use anatomy : Develloping anatomical spaces in order to decrease the among of uncertainty.

Know how to manage ureteric disease : ureterolysis, ureteric reanastomosis and psoas hitch.

http://player.vimeo.com/video/171737835?autoplay=1

ES25-0223
Best Selected Videos

Transperitoneal pelvic lymph nodes dissection: make it easily...in 10 steps

Emmanuelle Boulay[1], *Krzysztof Galczynski*[1], *Benoit Rabischong*[1], *Michel Canis*[1], *Nicolas Bourdel*[1]
[1]*CHU estaing, Gynecologic surgery, Clermont-Ferrand, France*

Background

Study objective : To explain 10 essential steps to perform transperitoneal lymph nodes dissection from the peritoneal incision to the complete lymph nodes dissection including exposure of anatomical landmarks.

Design : Step-by-step description of the pelvic lymph nodes dissection in 10 basics steps using video and pictures.

Methods

Setting : For endometrial carcinoma the pelvic lymph nodes dissection by laparoscopy is a major component of the stagging surgery.

We describe 10 fundamental steps to perform a complete pelvic lymph nodes dissection and we propose a standardized technique to explain the surgery.

We performed a close technique for creating pneumoperitoneum with Veress neede insertion in Palmer's point.

- Step 1 : Ten-millimeter trocar is inserted into the umbilicus and three five-millimeter trocars are placed. The camera is placed in the umbilical port.
- Step 2 : The approach start by an incision of the peritoneum
- Step 3 : The dissection of the psoas is firstly made following the epimysium of the muscle. The genito-femoral nerve should be individualized at this step.
- Step 4 : The external part of the iliac vessels is dissected. The bottom of the iliac vein is also dissected. The obturator nerve is preferably identified at this step.
- Step 5 : Internal side of the iliac vessels is individualized. The initial external dissection is retrieved at this point under the vessels.
- Step 6 : The para-vesical fossa is largely opened after the individualization of the umbilical artery.
- Step 7 : The dissection is pursued following the umbilical artery.
- Step 8 : Anterior dissection expose the pectineal ligament and the corona mortis vein.
- Step 9 : Nodes are detached from the obturator nerve.
- Step 10 : Posterior dissection : Final part of the lymphadenectomy and expose the iliac bifurcation.

Results

This standardized procedure allows a perfect exposition of the anatomical landmarks at the very beginning of the dissection.

Conclusions

We propose a step by step pelvic lymph node dissection to facilitate learning-curve and to perform a complete surgery.

http://player.vimeo.com/video/169395032?autoplay=1

ES25-0045
Best Selected Videos

How safe is it to use surgical adhesive in mesh fixation during gynecologic procedures?

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Background

In recent years the use of surgical glue has been widely accepted in hernia surgeries. There have been researches carried out about the use of glue in gynecologic promontofixation due to pelvic organ prolapse. Gynecologic surgeons started using it in combination with sutures or tackers.

Methods

Our team started using Ifabond also. During our practice we detected 2 complications, patient A and B, whose laparoscopic promontofixation was done by the same surgeon from our team. While our third case, Patient C was initially operated in a different hospital by a different surgeon. In our video we present these three cases.

Results

In all three cases initial surgery was a standard promontofixation of the vaginal cuff using surgical adhesive in combination with sutures. Medical history of all three patients included previous total hysterectomies due to different causes. In case of patient C initial surgery was converted into laparotomy due to the difficulties of controlling bleeding.

They presented in follow-up visits with a variety of symptoms such as pelvic pain, vaginal discharge or dyspareunia.

Second surgery in all three patients was performed by the same surgeon via laparoscopy. In all cases mesh erosion was detected without infection. Debris of the glue could be found in place of application.

Conclusions

After all we can conclude that the use of surgical adhesive simplifies gynecologic procedures. Yet based on our own experience and encountering complications from other surgeons its safe application at the level of vagina is not yet proven. Furthermore we believe there is a direct connection between glue application and mesh erosion.

http://player.vimeo.com/video/163926650?autoplay=1

ACCEPTED ABSTRACTS FOR ORAL PRESENTATIONS (80)

ES25-0177
Free Communication 1 - Endometriosis I Fibroids

How often is a sonographic diagnosis of endometrioma associated with other endometriotic pelvic locations detectable by ultrasound ?

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Background
The aim of this study is to investigate whether or not an ovarian endometrioma ,sonographically diagnosed, is associated to other appearances of pelvic endometriosis such as adhesions and/or deep infiltrating endometriosis (DIE), thus in order to improve the management of patients with pelvic pain or infertility.

Methods
This is an observational retrospective study on patients who underwent a transvaginal sonographic (TVS) scan and showed an ovarian cyst with typical appearance of an endometrioma. Patients with previous pelvic surgery and without symptoms were excluded. Other associated sonographic sign of pelvic endometriosis such as adhesion, tubal pathology, adenomyosis and DIE were recorded.

Results
226 symptomatic patients ≤ 40 years with at least an ovarian endometrioma with a diameter of ≥ 15 mm were included in this study. Mean age was 32.9 ± 4.9 yrs, mean endometriomas diameter was 35.5 ±16.5mm, Bilateral endometriomas were observed in 32 patients (14%). Of the 226 patients 41(18%) showed posterior rectal DIE and 92 (41%) an involvement of the parametrium with at least a thickening of one uterosacral lignament (USL). 138 patients (61%) showed adhesions and 82 (36%) had myometrial signs of adenomyosis. Only 21 (9%) had a single isolated ovarian lesion with a mobile ovary and without any other ultrasound signs of pelvic endometriomas.

Conclusions
Ovarian endometrioma is a marker for pelvic endometriosis and is rarely isolated. A high percentage of USL involvement has been observed. In a clinical context when there is an ovarian endometrioma an accurate TVS should investigate the extent of the disease to check for other endometriotic lesions in order to choose the most appropriate management to treat patient's pain and infertility not only considering the presence of the ovarian lesion.

ES25-0227
Free Communication 1 - Endometriosis I Fibroids

Novel clinical based screening tool, using British Society of Gynaecology Endoscopy (BSGE) pelvic pain questionnaire, clinical examination and transvaginal ultrasound to predict severity of endometriosis

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Background
Severe endometriosis is a challenging condition and accurate staging is essential for planning the management of women who have endometriosis, minimising the impact on their quality of life and fertility, reducing unnecessary repeated surgery and operative morbidity. The aim of this project is to generate a diagnostic model to predict severity of endometriosis prior to Laparoscopic surgery. This will help to improve the pre-operative diagnostic accuracy of severe endometriosis and as a result refer relevant women to a specialist centre for complex Laparoscopic surgery. The model is based on the British Society of Gynaecological Endoscopy (BSGE) pain questionnaire, clinical examination and transvaginal ultrasound scan.

Methods
This is a prospective, observational, study, in which women completed the BSGE pain questionnaire, a BSGE requirement. Also as part of the routine preoperative assessment patient had a routine ultrasound scan and when recto-vaginal and deep infiltrating endometriosis was suspected an MRI was performed. No intervention outside the recognised and established endometriosis centre protocol set up by BSGE. The setting is Luton & Dunstable University Hospital Endometriosis centre.

Results
Symptomatic women (n = 56) scheduled for laparoscopy due to pelvic pain. The age ranged between 17 – 52 years of age (mean 33.8 years, SD 8.7 years). We measured sensitivity and specificity of endometriosis diagnosis predicted by symptoms based on BSGE pain questionnaire, clinical examinations and imaging. The prevalence of diagnosed endometriosis was calculated to be 76.8% and the prevalence of advanced stage was 55.4%. Deep infiltrating endometriosis in various locations was diagnosed in 32/56 women (57.1%) and some had DIE involving several locations. logistic regression analysis was performed on 36 clinical variables to create a simple clinical prediction model. After creating the scoring system using variables with $P < 0.05$, the model was applied to the whole dataset. The sensitivity was 83.87% and specificity 96%. The positive likelihood ratio was 20.97 and the negative likelihood ratio was 0.17, indicating that the model has a good predictive value and could be useful in predicting advanced stage endometriosis.

Conclusions
This is a hypothesis-generating project with one operator, but future proposed research would provide validation of the model and establish its usefulness in the general setting. Predictive tools based on such model could help organise the appropriate investigation in clinical practice, reduce risks associated with surgery and improve outcome. It could be of value for future research to standardise the assessment of women presenting with pelvic pain. The model need further testing in a general setting to assess if the initial results are reproducible.

ES25-0169
Free Communication 1 - Endometriosis I Fibroids

Comparison of follicular density between ovaries with and without ovarian endometrioma

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Background

To address an adverse effect of endometiosis on ovarian reserve, we evaluated follicle densities in the ovaries with and without ovarian endometrioma and those of two sections in ovarian endometrioma.

Methods

We analyzed follicular density count (number of follicles in cm^2) in ovaries from women with ovarian endometriomas (n=25) and women that underwent laparoscopic risk-reducing salpingo-oophorectomy (RRSO) for hereditary breast and ovarian cancer (HBOC) (n=9). These women had regular menstruation cycles at the time of surgery. Follicular density was histologically measured and compared at two sections (near and far uterus) of removed ovaries. Wilcoxon signed-rank test was used for statistical analysis.

Results

The median age of the study subjects was 44 years (range, 35-52 years) in women with endometriomas and 44 years (range, 36-50 years) in controls, respectively. In women with endometiomas, the follicular density was lower in sections near endometriomas (0.9/ cm^2, range 0-6.8/cm^2) than in sections far from endometriomas (2.2/cm^2, range 0-7.4/cm^2), but the difference did not reach statistical significance due to limitations imposed by the small sample size ($p = 0.06$). In controls, the follicular density was similar between two sections (uterus side 1.8/cm^2 [range 0.0 - 12.5] vs. fimbria side 1.4/cm^2 [range 0.0 - 19.4], $p = 0.23$).

Conclusions

Our findings suggested that endometriotic cysts may reduce ovarian reserve in normal-looking tissues surrounding the cysts. Therefore, early intervention may be beneficial in young women with endometriomas to protect their ovarian function.

ES25-0422
Free Communication 1 - Endometriosis I Fibroids

Defining probabilities of bowel resection in deep endometriosis of the rectum: yes, we can

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Background
deep endometriosis of the rectum is a highly challenging disease, and a surgical approach is often needed to restore anatomy and function. two kind of surgery may be performed: radical with segmental bowel resection and conservative without it. in most cases the decision to resect the bowel is made during surgery. we searched for a reproducible pre-surgical method to identify patients who will need radical surgery and to define the probability to have bowel resection in order to discuss with patients a comprehensive informed consent.

Methods
from 2010 to 2016 we collected medical records' data and reviewed 96 patients' magnetic resonance images in order to detect any variable predicting bowel resection. fifty-two patients fulfilled the criteria and were included in this study. four independent parameters on mri images were detected as the most suitable for the purpose. we pooled data in logistic regression models and receiver operating characteristic curves were obtained to evaluate sensitivity and specificity of variables tested

Results
two variables significantly correlated to the type of surgery later performed. the first one was named "impact angle". it was defined as the minimum angle obtained between two lines drawn from the outer points of incidence of the lesion on the rectal wall towards the apex of the lesion itself. the second was the lesion's size. by combining the 'impact angle' with the measure of the extension of the lesion, we obtained a roc curve with an auc of 0,905 (ci 95% 0.819-0.991) in predicting resection. cut off values highly informative for the necessity of radical surgery were an angle below 110,6 ° and an extension over 32mm. using a binomial logistic regression model, we built a curve that can give the exact predicted probability for resection

Conclusions
combined assessment of the impact angle and of the largest diameter of the lesion could give precious indications about the need of a bowel resection, or the probability of its occurrence, and can allow for a comprehensive informed consent and better planning of the surgical team

ES25-0332
Free Communication 1 - Endometriosis I Fibroids

Dienogest only versus dienogest combined pills for endometriosis treatment: a 6 and 12 months follow up during post operative therapy

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Background
Post-surgical medical therapy has been advocated to improve the effectiveness of surgery and prevent recurrences. Even if many studies suggest a beneficial effect of long-term postoperative hormonal medication for endometriosis, there is still a lack of knowledge about which kind of drugs could be more suitable. Dienogest is a powerful progestin against the disease. Our objective was to compare efficacy of combined oral contraceptives containing Dienogest and Dienogest-only, on reducing recurrence of pain and recurrences after surgery for endometriosis.

Methods
We started from endometriosis patients database, made up of 3415 cases. Among them we selected 1376 cases who underwent surgery between June 2011 and December 2015 for endometriosis (both deep and/or ovarian endometriosis) in our Hospital.
Among this group we looked for patients using (or have been using) COC with Dienogest (Group 1) or Dienogest-only (Group 2) immediately after surgery.
Patients have been followed up at 6 and 12 months after surgery. Each patient underwent to a clinical and ultrasound exam to evaluate likelihood of recurrence of the disease, recurrence of pain and to evaluate drugs side effects. A visual analogue scale (VAS) was used to test intensity of pain (dysmenorrhea, dyspareunia, chronic pelvic pain, dysuria, dyschezia, back pain) as cumulative score.

Results
80 women met the inclusion criteria: 38 for Group 1 and 42 for Group 2. Between the two groups the cumulative VAS score did not show any differences at the analysis including all scores of pain. The linear regression analysis as well did not show significant differences between the two groups. No significant differences were found in the recurrence likelihood. The two groups did not show any significant differences also for any side effects incidence.

Conclusions

Postoperative treatment for endometriosis is a priority to prevent recurrences and to control symptoms. Both kind of therapies seemed equally efficacious in preventing endometriosis-related pain and endometriosis recurrence in the first 6 and 12 months of follow-up after surgery.
Considering the large difference in the cost of the two drugs, Dienogest could be suggested selectively in specific cases, e.g, women who do not tolerate any other or women with contraindication to estrogen.
Potential bias of the study could be the number of patient too small and the kind of retrospective analysis. Further studies are needed to really understand efficacy and effectiveness of Dienogest on the postoperative treatment of endometriosis.

ES25-0510
Free Communication 1 - Endometriosis I Fibroids

"Doctor, I have chronic pelvic pain. It must be endometriosis…"

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Background

Chronic pelvic pain (CPP) refers to pain of at least six months' duration that occurs below the umbilicus and is severe enough to cause functional disability or require treatment. Patients with CPP represent 10 % of all ambulatory referrals to a gynecologist and CPP concerns 6 to 14 % of women in the general population.

Deep infiltrating endometriosis (DIE) is defined as endometriotic tissue composed of endometrial glands and stroma infiltrating the anatomical structures and organs by > 5 mm. Its affects a young childbearing population and causes debilitating pelvic pain, intestinal and urinary disorders. The treatment options are numerous, complexes and consist in a combination of hormonal and analgesic therapies and pelvic surgery. The difficulty to treat and the high symptom's recurrence of this illness, lead to consider it like a chronic disorder. As a consequence, DIE is also associated with significative reduction of quality of life, elevated likelihood of developing depression, anxiety disorders and can generate progressive social isolation.

Methods

Data were collected from published research articles from MEDLINE (Pubmed).

Results

Complete surgical excision of DIE is an effective first-line treatment for offer pain relief, improves quality of life and is recommended by several guidelines and consensus. The all point is to distinguish in patients who suffer from CPP, the ones who present isolated DIE from the ones who present multicausal CPP, which is the most common case. CPP finds its etiology in several levels, like gastrointestinal, urological, gynecological, psychological, musculoskeletal, neurological disorders. All this sources, that can contribute to pelvic pain, should be considered in evaluating women with CPP. Gynecologic pathologies, leading to pelvic pain occurs in only 20 % of cases. When facing DIE, we also have to keep in mind that the extent of the lesions is not proportional to the pain intensity. Based on experience, even if the medical or surgical treatment seems to be appropriate, it is not always efficient and we notice also that unspecific treatment may alleviate the pain. Younger age and catastrophization are correlated with persistent pain following surgery for endometriosis. The last baffling observation resides in the fact that the pain can reappear without the concomitant recurrence of the lesions.

Conclusions

Endometriosis and CPP are intertwined entities, but the occurrence of one of them, thus not necessary involves the occurrence of the other.

The DIE and CPP management requires extensive knowledge of DIE pathogenesis and gynecologic diseases but also of neurophysiology, pelvic anatomy, neuropsychology, pharmacology, urology, gastroenterology and large expertise and advanced skills in pelvic surgery and should be performed, by a multidisciplinary team, in a specific dedicated unit.

ES25-0300
Free Communication 1 - Endometriosis I Fibroids

Bowel occult microscopic endometriosis in resection margins in deep colorectal endometriosis specimens has no impact on short-term postoperative outcomes

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Background
To evaluate the impact of bowel occult microscopic endometriosis (BOME) implants on postoperative outcomes in patients treated with colorectal resection for deep infiltrating digestive endometriosis

Methods
Prospective series of consecutive patients with deep colorectal endometriosis managed by colorectal resection in our department from June 2009 to November 2014 and enrolled in the CIRENDO database (NCT02294825).103 patients managed by colorectal resection for deep infiltrating endometriosis.underwent histologic examination of colorectal resection specimens.

Patient characteristics, preoperative and 1-year postoperative symptoms and intraoperative findings were compared between women with and without BOME on specimen resection margins.

Results
In 15 cases, BOME was found in one (nine cases) or both resection limits (six cases). No statistical significance was found between BOME and height of colorectal anastomosis, length of the resected bowel specimen or depth of rectal wall infiltration. One patient with BOME underwent a second colorectal resection 5 years later for rectal recurrence. Comparison between the rates of dyschezia, diarrhea, constipation, bloating and overall values of GIQLI and KESS scores 1 and 3 years postoperatively showed no statistical significance between women with and without BOME

Conclusions
BOME was found in 14.6% of specimen resection margins. No impact on either pelvic or digestive symptoms was observed after 1-year follow-up postoperatively.

ES25-0199
Free Communication 1 - Endometriosis I Fibroids

Disseminated leiomyoma cells can be identified following conventional myomectomy

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Background
Uncontained morcellation of leiomyomas during laparoscopic surgery has recently been discouraged as undetected malignant tumours, namely leiomyosarcomas, could be fragmented,, which may result in an upstaged disease. However, enucleating leiomyomas *per se* may be inappropriate from an oncological perspective because complete, radical resection of malignant tumours to prevent further tumour growth or recurrence is not achieved. Thus, the aim of this study was to determine whether spillage of leiomyoma cells occurs during laparotomic myomectomy**.**

Methods
This study was performed at the Leiden University Medical Centre, a tertiary academic centre in Leiden, the Netherlands. Women undergoing laparotomic myomectomy were included in the study. Peritoneal abdominal washings were obtained on two occasions during the myomectomy procedure; the first one immediately after opening the abdomen and the second one after resection of the leiomyoma(s). Cytological evaluation of the fluids was performed to detect the presence of leiomyoma cells.

Results
Five patients were included in this study. All first washings were negative for leiomyoma cells. However, positive cytology for the presence of leiomyoma cells was found in three out of the five second, post-myomectomy washings.

Conclusions
Tissue spillage from leiomyoma(s) occurs during conventional open myomectomy. The clinical relevance of tissue dissemination after myomectomy is unclear but it cannot be excluded that this may negatively affect patient's outcomes if there is malignant change within the enucleated leiomyoma(s). Therefore, it is questionable whether morcellation in specially designed containment bags after laparoscopic myomectomy, guarantees any additional oncological safety.

ES25-0138
Free Communication 1 - Endometriosis I Fibroids

Fertility and obstetric outcomes of women undergoing laparoscopic uterine myomectomy with in-bag transvaginal specimen extraction vs. electric motorized morcellation (EMM) of fibroids

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Background
Laparoscopy is a feasible and safe procedure to perform uterine myomectomy in selected patients. At laparoscopy, the specimens can be extracted with either EMM (with the risk of spillage of debris) or transvaginally through a posterior colpotomy at the level of the Douglas pouch (which is significantly associated with less post-operative pain and better cosmesis). The Douglas pouch is involved in conception and no studies investigated the possible detrimental iatrogenic effects of transvaginal extraction on fertility and pregnancy. The aim of our study was to investigate possible differences in fertility-obstetric outcomes between women who had in-bag transvaginal extraction or EMM of specimens.

Methods
Data about all the women who underwent laparoscopic myomectomy at the Obstetric and Gynecologic Unit of the University of Insubria (Varese-Italy) were retrospectively collected. Surgery was performed in the period between January 01, 2004 and December 31, 2014. Reproductive/obstetric outcomes of 119 women who underwent laparoscopic myomectomy with either transvaginal extraction (group 1; N=57) or EMM from one of the port sites (group 2; N=62) were analyzed. Twenty-three (40.4%) and 37 (59.7%) women wished to conceive in group 1 and 2, respectively. Post-operative reproductive and obstetric outcomes of these patients were obtained from our obstetrical database or through telephonic interviews in case of missing data.

Results
Mean age did not differ between groups (p=0.49). We found no difference between groups in terms of previous open surgery (p=0.67) and pelvic endometriosis (p=1.00). The number of nulliparous women was similar between group 1 and 2 (p=1.00). Among women of group 1 and group 2 who sought for pregnancy after surgery, 12 (52.3%) and 25 (67.6%) got pregnant (p=0.28), respectively. The seeking-pregnancy time was comparable (4 vs. 6.5 months; p=0.33). Eight (66.6%) and 22 (88%) women delivered at term in group 1 and 2 (p=0.18), respectively. Two miscarriages occurred in both groups (group 1: 16.7% vs. group 2: 8%; p=0.58). Two (16.7%) pregnancies were still ongoing at the time of writing in group 1 and 1 (8%) in group 2. No difference was found in terms of access to assisted reproductive techniques (p=1), incidence of hypertension/preeclampsia (p=1), placenta previa (p=0.27), uterine rupture (p=1), placental acretism (p=1), peripartum hysterectomy (p=1), placental abruption (p=1), estimated blood loss (p=0.39) and post-partum haemorrhage (p=1). Cesarean section was the main route of delivery irrespectively of the way of specimen extraction (7 [87.5%] in group 1 vs. 14 [63.6%] in group 2; p=0.37).

Conclusions
In-bag transvaginal specimen extraction at the time of laparoscopic myomectomy has no detrimental effects on fertility-obstetric outcomes, compared to traditional EMM. This technique conjugates a decrease in the size of trocars and the possibility to avoid spillage of debris during specimen extraction with the absence of negative effects on future fertility.

ES25-0451
Free Communication 2 - Fibroids I Hysteroscopic Surgery

In vivo mechanisms of uterine fibroid volume reduction with ulipristal acetate treatment

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Background
Uterine myomas are the most commonly observed benign tumors in premenopausal women, with a cumulative incidence of ~70% at 55 years of age. They constitute the first indication for hysterectomy. Progesterone is the major promoter of myoma growth. Ulipristal acetate (UPA), a selective progesterone receptor modulator, is clinically proven to reduce myoma size. Nevertheless, the in vivo mechanisms of action of UPA on myomas are not yet understood. This study investigate these mechanisms and their impact on uterine myomas.

Methods
Histological and immunohistochemical (IHC) analyses were performed on tissue microarrays of 260 myoma samples from 59 women with symptomatic myomas. Forty-two were treated preoperatively with UPA, while 17 were not (control group). Proliferation and apoptosis were assessed using Ki67, cleaved caspase-3, PARPp85 markers and TUNEL assays. The extracellular matrix (ECM) was analyzed with Masson's green trichrome and picrosirius red staining for fibrosis evaluation, and matrix metalloproteinase-2 (MMP-2) IHC for matrix remodeling analysas. Gelatin zymography was carried out on fresh myoma tissue according to clinical observations of a decrease or increase in tumor volume after UPA treatment, and compared with untreated samples.

Results
The proliferation rate was low in all conditions, with no statistical difference between groups. TUNEL assays showed an increase in cell death in UPA-treated myomas compared with untreated myomas, but only after short-term treatment. This was not associated with elevated cleaved caspase-3 levels. After long-term treatment, cell density was higher and the ECM volume fraction lower in UPA-treated myomas than in untreated myomas. MMP-2 expression was found to be increased after treatment, exhibiting the highest levels after long-term treatment, compared with untreated myomas. Moreover, gel zymography revealed that MMP-2 was not only more extensively expressed, but also more active in myomas that had shrunk in size (responsive).

Conclusions
With regard to sustained volume reduction of myomas, this study strongly points to multifactorial mechanisms of action of UPA involving: (i) a persistently low cell proliferation rate; (ii) a limited period of cell death; and (iii) ECM remodeling concomitant with an increase in MMP-2 expression. This decrease in tumor volume correlates with MMP-2 expression and gelatinolytic activity, and can explain why UPA-treated myomas clinically migrate and appear to have a much softer texture during surgery.

ES25-0218
Free Communication 2 - Fibroids I Hysteroscopic Surgery

Long-term outcome after radiofrequency thermal ablation of uterine myomas

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Background
To assess re-interventions after ultrasound guided radiofrequency thermal ablation (RFA) of uterine myomas, related to patients and baseline ultrasound appearance.

Methods
Prospective follow-up, cohort study. Sixty-two patients treated with RFA of uterine myomas. Data from clinical and ultrasound examination, symptomatic and quality of life questionnaire (UFS-QOL), national database of pathologic examinations and registrations from the database of civil registration numbers in Denmark.

Main outcome measures were UFS-QOL scores and re-interventions (hysterectomy, myomectomy and hysteroscopic resection) estimated as re-interventions per time in percent of remaining women at risk and, related to patients age, number of myomas, volume of dominant myoma.

Results
: 62 patients were recruited for follow up of mean: 58.9 months (37-74). Twenty-two patients (35%) underwent major re-intervention, seven (11%) had myomectomy and fifteen (24%) had hysterectomy. Five (8%) patients had hysteroscopic surgery.

Higher SS-scores at baseline were related to re-intervention, but either HRQOL-scores at baseline or the change in HRQL-scores and SS-scores in the first 9 months were related to re-interventions. No single myoma characteristics or the myoma volume reduction at 9 months were related to re-interventions.

Age below 45 years was related to re-interventions. Women in the age group of 45 and beyond had a major re intervention rate (CI95%) of 12% (5-26) after two years and 19%(10-35) after five years, while 35.0(19-60) and 73.8%(52-92) of women below the age of 45 had major re-interventions after two and five years respectively.

Six of 22 patients had major re-interventions for other reasons than myoma related complains and the major re-intervention rate due to myoma related symptoms was 13.5%

(7-25%) after 2 years and 29.1% (19-43%) after 5 years respectively. In the group of women, where only one myoma was treated with myoma volume<180 ml Kaplan-Meier estimates showed only 13% and 26% major re-interventions after 2 and 5 years respectively.

Conclusions
Radiofrequency thermal ablation of uterine myomas is a simple outpatient noninvasive alternative treatment option, which shows sustainable results and major re-intervention rates compared to other uterus preserving treatments of uterine myomas.

ES25-0356
Free Communication 2 - Fibroids I Hysteroscopic Surgery

Repeat hysteroscopy after hysteroscopic adhesiolysis

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Background
Ascherman Syndrome (intra-uterine adhesions) is as common as 1,5% of women potentially resulting in menstrual abnormalities, infertility or recurrent pregnancy loss. In order to optimize the uterine cavity for implantation and thus treating infertility the most common therapy is hysteroscopic adhesiolysis. Postoperatively recurrence of adhesions is seen in 20-50% according to literature and different techniques have been described to prevent these. Both mechanical (IUD, intra-uterine balloon, hyaluronic acid gel) and medical regimens (Estrogens with or without Progestins) have been investigated with no clear advantages for one or the other. In this retrospective study we investigated our patients treated for Ascherman syndrome between 2009 and 2015 to identify the success rate in prevention of postoperative adhesion formation by performing repeat office hysteroscopies.

Methods
In this preliminary analysis we identified 32 cases that could be analyzed. After primary surgery with the Campo Trophyscope® and mechanical scissors (Karl Storz, Germany) patients generally received a contraceptive pill or estrogen only, and hyaluronic acid gel (Hyalobarrier gel®, Nordic Pharma) at the end of the procedure. Patients were then scheduled for repeated office hysteroscopy 1 week and 2 weeks after surgery, and longer if adhesions were seen.

Results
Fourteen patients (43,8%) had had previous dilatation and curettage for miscarriage or abortion, five patients (15.6%) had had previous operative hysteroscopy (eg. Myomectomy) and thirteen (40,6%) developed adhesion after delivery. Classification of adhesions was classified according ESH classification and varied between grade II and IV. After initial adhesiolysis a normal anatomical status (ESH 0-1) was obtained in 21 patients (65.6%).In our group 14 patients had 2 or more repeat hysteroscopies and 16 patients had only one or even zero repeat hysteroscopies. In 21/25 (84%) of cases where we had records of the repeat hysteroscopy, there was a similar ESH classification postoperatively compared to immediately at the end of surgery. Only 4/25 (16%) cases had a worse classification, meaning that adhesions were reformed that could not be ruptured by the hysteroscopic sheath. There were 34.4% (11/32 cases) reinterventions, and in this group the initial classification was grade 3 or higher in 10/11 cases. 13/32 Patients (40,6%) got pregnant after the adhesiolysis. Five patients (15,6%) did not persue pregnancy and were using contraceptive methods. The remaining 14 (43,8%) unfortunately were unable to conceive.

Conclusions
In our series of Ascherman syndrome the overall success rate of the surgery was 65.5% after primary surgery. We examined repeat office hysteroscopy as a method to check, prevent and even treat reformation of adhesions. These preliminary results are promising, and will be correlated to other series in the literature.

ES25-0270 -
Free Communication 2 - Fibroids I Hysteroscopic Surgery

ReLARC®, a new hysteroscopic reversible uterine implant (IUI), an alternative to sterilization, Essure® and IUDs

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Background and objective: This presentation will demonstrate a new hysteroscopic insertion technique with direct visualization of the intrauterine contraceptive implant (ReLARC®) with lifespan of 5 years up to 10 years or more.

Methods

Patients requesting contraception, or who presented with IUD problems, were evaluated by hysteroscopy and fitted with a short- or long-acting ReLARC® copper intrauterine implant (IUI). Ultrasound performed immediately and 4-6 weeks later were performed to measure the position and fixation of the anchored IUI.

Results

134 patients received the ReLARC® IUI. The IUI was well positioned and fixed in all women as confirmed by ultrasound evaluation at follow-up. In only 4 cases after immediate ultrasound a re-insertion was performed as the insertion depth seemed insufficient. At follow-up at subsequent visits no expulsion were reported.

Conclusions

The IUI can fit uterine cavities of all sizes and shapes. As it is only 2.5 mm wide, flexible and fixed in the fundus embedment or displacement is not possible. This is an important advantage for the continuation rate of a long term contraceptive IUI (>10 years). Conventional T-shape IUDs can cause pain and abnormal bleeding and dislocation, particularly in case of gross disparity between the IUD and the uterine cavity. ReLARC® can be inserted in an outpatient/office setting without full anesthesia. Office removal is simple with minimal pain and without any damage for the uterine wall. Case-reports will be presented and the hysteroscopic insertion technique of ReLARC® will be shown in video films.

ES25-0333
Free Communication 2 - Fibroids I Hysteroscopic Surgery

Prevention of adhesions post abortion (papa-study); a multicentre, prospective randomised controlled trial evaluating application of auto-crosslinked hyaluronic acid gel following D&C

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Background
Intrauterine adhesions (IUAs) are reported after dilatation and curettage (D&C) for miscarriage, with frequency related to number of procedures. IUAs are associated with menstrual disturbances, infertility and obstetric complications. In the PAPA-study we aimed to investigate whether application of auto-crosslinked hyaluronic acid (ACP) gel following D&C for miscarriage reduces the rate and severity of IUAs.

Methods
We performed a multicentre, open-label, randomised controlled study in one university and seven affiliated hospitals in the Netherlands. Women planned for a D&C for miscarriage, with at least one previous D&C, were randomly assigned (1:1) to either D&C plus intrauterine application of ACP gel (10 ml) immediately after the procedure (intervention group) or D&C alone (control group). Randomisation was done with a web-based concealed allocation and stratified by centre with variable block sizes. Each woman underwent a follow-up hysteroscopy 8-12 weeks after the D&C-procedure. The primary outcome was the amount and severity of IUAs.

Results
Between December 16, 2011 till April 22, 2015, we randomly assigned 78 women to the intervention group and 74 to the control group. Sixty (78%) of 77 women eligible for assessment in the intervention group and 58 (81%) of 72 women in the control group underwent a hysteroscopy. IUAs were observed in 10 (13%) women in the intervention group compared to 22 (31%) women in the control group (relative risk [RR] 0·43; 95% CI 0·22 to 0·83). The severity of the IUAs and mean adhesion score was significantly lower in the intervention group.

Conclusions
Application of ACP gel following D&C for miscarriage in women with at least one previous D&C, significantly reduces the incidence and severity of IUAs. Adhesion prevention should be offered to this specific group.

ES25-0389
Free Communication 2 - Fibroids I Hysteroscopic Surgery

Safety and feasibility of office hysteroscopy in removing retained products of conception

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Background
With prospective study from 2012 - 2015, we wanted to evaluate success and safety of minimally invasive approach with office hysteroscopy in removing retained products of conception (RPOC).

Methods
Patients with presumed RPOC at least 4 weeks after early pregnancy termination or 6 weeks after delivery were referred to office hysteroscopy. Pre-operative investigations included vaginal ultrasound and serum β-hCG levels. Patients with endometritis, heavy bleeding and more than 30mm thickness of tissue on ultrasound were excluded. Patients with hysteroscopically confirmed RPOC were re-examined one month later with office hysteroscopy or vaginal ultrasound.

Results
124 patients with presumed RPOC were reffered to office hysteroscopy.

Average age was 31,2 years (19-44), gestational age 29 weeks (6-42), average time of intervention 8,3 weeks (4-22) after pregnancy. 72 (58,1%) patients were after vaginal delivery, 15 (12,1%) after caesarian section, 32 (25,8%) after medical abortion, 3 (2,4%) after suction curettage. Average thickness of RPOC on vaginal ultrasound was 11,4 (2-30) mm. Maximum β-hCG level was 79,9, average 25,9 units per liter, 53 (42,7%) patients were β-hCG negative.

In 115 (92,7%) cases, we estimated that procedure was successful. In 9 (7,3%) cases we did not complete the procedure**.** Reported causes of failure described strong adherence of tissue (4 times), bleeding (4), too much tissue (2), pain (1) and perforation (1).

Average duration of procedure was 16,8 minutes (3-60), average estimation of pain by visual analogue scale 2.2 (0-8),

In successful cases, 19 (16.5%) were described as diagnostic, 61 (53%) were maneged with graspers and scissors, 25 (21,7%) had hysteroscopically guided removal with curette, 7 (6,1%) resection by morselator, 3 (2,6%) by bipolar needle. 108 (93,9 %) procedures (6,5%) were performed without anesthesia, 7 (6,1%) in paracervical block.

3 (2,4%) patients had vasovagal reflex. 1 perforation occured during entering cervical canal. Minor to moderate bleeding was described in 16 (12,9%) cases, 2 (1,6%) required treatment with uterotonics. All complications resolved after short observation. In 24 (21%) patients, prophilactic antibiotic was prescribed. Unsuccessful cases were referred to procedures under general anesthesia.

Histopathology confirmed RPOC in 104 (83,9%) of patients.

83/104 patients came for follow-up. 72 (87%) were examined with office hysteroscopy and 11 (13%) with vaginal ultrasound. 3 (3,6%) reported endometritis, 2 were treated with antibiotics oraly, 1 intravenously. 25 patients (30%) had minimal (less than 5 mm) residual tissue visible in the cavity, 2 (2,4%) more than 1 cm remaining tissue. All were asymptomatic. 3 patients had uterine adhesions. One had adhesions already during first intervention 20 weeks after delivery, other two had curettage after unsuccessful office hysteroscopy.

Conclusions
Office hysteroscopy is well tolerated and safe for removing RPOC. In our institution it is preferred method and feasible for RPOC up to 30mm in thickness on ultrasound and β-hCG up to 80 units per liter.

ES25-0303
Free Communication 2 - Fibroids I Hysteroscopic Surgery

Evaluation of a mathematical model for glycemia prediction as a marker of intravasation during hysteroscopy

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Background
Intravasation is one of the most serious complications during operative hysteroscopy. The risk is related to the volume of irrigation fluid adsorbed by miometrial veins. The aim of our study is to assess the predictivity of a mathematical model built for extracellular volume monitoring.

Methods
We recruited 32 patients who underwent operative hysteroscopy with resectoscope at the university centers of Salerno. We measured plasmatic glucose levels, using fingerstick, blood pressure, serum sodium and potassium. These measurements were performed both before and after hysteroscopy. We also measured procedure duration and liquid balance. Data were processed by t-test and glycemia proved to be the most rapidly changing marker, in association with the irrigation fluid used. So, a mathematical model, based on forward stepwise regression analysis was built to predict glycaemia variations from the measurements of blood pressure, irrigation fluid balance and hysteroscopy duration.

Results
The proposed (ΔGlicaemia=8.6539+0.2629*ΔDiastolic pressure-0.3014*ΔSistolic pressure+0.5764*Duration+5.3195*ΔVolume) model proved to be effective because predicted glycaemia was in line with the measured plasma glucose levels with a means difference below of the 10% of the differential value.

Conclusions
Since glycaemia is the most sensitive index of extracellular fluid composition and of the risk of intravasation, its prediction based on routinely monitored parameters during hysteroscopy (such as blood pressure, fluid balance and duration of the procedure) may be of help in intravasation risk assessment.

ES25-0324
Free Communication 2 - Fibroids I Hysteroscopic Surgery

Resolution capacity of hysteroscopy in an ambulatory setting.

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Background

Development of narrow calibre endoscopic instruments in outpatient hysteroscopy enables a minimally invasive approach to the most common uterine benign disorders. Direct endoscopic visualization of the endometrial cavity allows a 'see and treat' technique in a large number of procedures.

Most conditions can be managed in an outpatient setting, avoiding surgical environment leading to a reduction in medical and social costs with benefits for both, the patient and the health system.

The Ambulatory Hysteroscopy Unit in our hospital started on May 2008; there are two gynaecologist and one nurse. Procedures are performed by 'vaginoscopy' technique and 30 minutes before the hysteroscopy a painkiller and an anxiolytic are dispensed to the patient. Local anaesthesia and cervical preparation are used only in selected cases. We have several therapeutic devices available in 5-6 mm diameter: mechanical instruments (scissors and forceps), bipolar electrode (Versapoint ®), morcelator (Myosure®) and bipolar Gubini resector (Colibrí®). They have been set up gradually in our Unit.

Our main objective was to assess the hysteroscopy resolution capacity in an outpatient setting, over an eight-year period.
As a secondary aim we analyse the indications and procedures performed during the study period.

Methods

A prospective descriptive study of outpatient hysteroscopy, carried out from May 2008 to March 2016.

Resolution capacity was assessed as the percentage of patients that did not require surgical hysteroscopy to complete the diagnosis or the treatment of their uterine pathology.

Indications and procedures performed were also assessed. All data were prospectively collected in a computer database.

The total number of patients included (2006) was sequentially arranged in to four groups of 500 patients each. (Groups A-D). Therefore, in group A there were our first 500 explorations and group D included our last 500 ambulatory hysteroscopies.

Results

The number of patients included has been 2006.

The mean resolution capacity of the whole period is 86.0%. The results achieved in the groups are: 69.8% for group A, 89.4% for Group B, 91.0% for Group C and 93.0% for Group D.

Indications for the hysteroscopy are: 64% suspected endometrial polyps, 18% endometrial thickening, 7% abnormal uterine bleeding, 5% retained Intra-Uterine Device, 5% fibroid and 1% of other causes.

In 72% of cases a procedure has been performed during the hysteroscopy, being the ploypectomy (59.48%) the most common intervention followed by directed endometrial biopsy (27.88%).

Conclusions

Almost 90% of the patients attended in our Ambulatory Hysteroscopy Unit have been managed in outpatient setting; therefore they have not required surgical hysteroscopy.

Our resolution capacity has followed an upward progression throughout the study period, reaching 93% of success in the last 500 procedures.

These encouraging results keep ambulatory hysteroscopy as a first-line technique for the management of intrauterine disorders.

ES25-0497
Free Communication 2 - Fibroids I Hysteroscopic Surgery

Hysteroscopic management of retained products of conception with myosure® under local anesthesia

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Background
Retained products of conception (rpoc) is a common condition among women with fertility concern. Most often treatment is performed with dilatation and curettage under general anesthesia. Endometrial trauma can cause intrauterine adhesions and subsequent infertility. As an alternative operative hysteroscopy has been proposed. This technic enables to remove tissue under direct visualization with an inactive loop to avoid thermal endometrial damage. We propose to evaluate Myosure® removal tissue single use device (Hologic, Bedford, USA) in this indication. Our study is the first report of RPOC management with Myosure® under local anesthesia.

Methods
To estimate the efficiency and safety of this procedure we conducted a retrospective study among 38 patients with RPOC confirmed by ultrasound examination and pathologic findings in our gynecology and obstetric department in 2014. Operative hysteroscopy has been performed during a one day procedure with Myosure® device under local anesthesia. Video recording of the procedures have been analyzed and assessment of the uterine cavity has been performed during an office hysteroscopy 4-8 weeks after operative procedure. Patient were asked about the quality of their menstruations after the procedure and their fertility among those who were willing to be pregnant.

Results
38 patients have been treated with that procedure. Median size of the retention was 20mm (10-39mm). Median duration of retention was 38 (5-150) days. Mean operative time was 27min (5-55). Quality of the vision was considered as good in all cases except one. All the procedures were conducted and completed under local anesthesia and tissue removal was considered as complete in all cases. There were no complications during or after the procedure. Diagnostic control hysteroscopy has been performed among 31 patients and the uterine cavity was considered as normal in 29 out of 31 cases (93%). 1 case of cervical adhesion and 1 case of mild intrauterine adhesion have been noticed. Among 11 patients willing to be pregnant 8 conceived spontaneously during the period of the study.

Conclusions
Hysteroscopic management of RPOC with Myosure® appears to be a safe and feasible procedure. Reduced endometrial trauma is confirmed by the unimpaired aspect of the postoperative mucosa. As an additional benefit this procedure doesn't require cervical dlation nor electric energy. Thus it can be performed under local anesthesia during outpatient surgery. Finally this could benefit to patients. This strategy is nevertheless limited by the additional cost of the single use device.

ES25-0417
Free Communication 2 - Fibroids I Hysteroscopic Surgery

Histological outcomes at hysteroscopy in postmenopausal women with asymptomatic endometrial thickening: A 6 year view from a DGH

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Background
Asymptomatic endometrial thickening in postmenopausal patient can be defined as an endometrial thickness exceeding 5mm in a midline sagittal ultrasound image of the uterus in the absence of bleeding[1] .Asymptomatic endometrial thickness (ET) is a common cause of referrals to secondary care and can often mean the start of a cascade of interventions to discover the underlying cause[1]

Methods
The aim of this study is to evaluate the histopathological findings in asymptomatic postmenopausal women who underwent hysteroscopy after an incidental ET of >5mm was discovered on scan in a UK district general hospital. This was undertaken by analysing referrals to the hysteroscopy service over a 5 year period and collating data on the eventual histology for those women who were referred with an incidental finding of an elevated ET.

Results
244 women were referred to the hysteroscopy service for an elevated ET between 2009 and 2016. ET ranged from 0 to 30mm. Of these women, the vast majority (57 %- 125 women) had an endometrial polyp at histopathological examination (HPE) as the underlying pathology. 2% (4 women) had endometrial hyperplasia. Of these women 3 had simple hyperplasia and 2 had complex hyperplasia, 1 with atypia. 2 patients were discovered to have an underlying endometrial malignancy. Interestingly, their ETs were at the lower end of the observed range; 8 and 13 respectively.55 women had scanty or insufficient samples, reflecting the low incidence of pathology in the general population. Overall, for postmenopausal women with an endometrial thickness between 0 and 30mm, 7% were found to have hyperplasia or carcinoma.

Conclusions
In conclusion, an incidental finding of an elevated ET poses a conundrum to primary and secondary care alike. Although the likelihood of pathology in this group is low, it is well recognised that early diagnosis and treatment of endometrial malignancy has a strongly positive impact on patient outcomes. Clinicians should balance risk with benefit and take into account patient risk factors for endometrial carcinoma before deciding to intervene.

References:

1. Smith-Bindman R, Weiss E, Feldstein V. How thick is too thick? When endometrial thickness should prompt biopsy in postmenopausal women without vaginal bleeding. Ultrasound Obstet Gynaecol 2004; 25, 558-65

ES25-0240
Free Communication 3 - Imaging I Laparoscopic Surgery

Pregnancy of unknown location: Can we use serum progesterone to guide management and need for follow up ?

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Background
Pregnancy of unknown location (PUL) is the term used when a woman presents with a positive pregnancy test but no intra or extra uterine pregnancy is identified on transvaginal ultrasound. With increasing sensitivity of urinary pregnancy tests, larger numbers of women are presenting to early pregnancy units before a pregnancy can be visualised on ultrasound. Most early pregnancy units will have PUL rates between 8-31% and the majority of these will be failing pregnancies which resolve spontaneously with no intervention required. Therefore, by identifying this low risk group we can minimise follow up and intervention, with the benefit of reducing cost to the unit and avoiding unnecessary hospital visits and reducing anxiety for the patient. A serum progesterone of <20 nmol/l can predict failing pregnancies with a positive predictive value of 95%. We aimed to identify if it was possible to identify these 'low risk' patients from their initial serum progesterone.

Methods
We conducted a retrospective study all of the PULs treated in our early pregnancy unit from December 2015- January 2016. We studied the serum progesterone taken at presentation and the final diagnosis recorded on ultrasound.

Results
Over the 2 month period, 672 cases were seen in the early pregnancy unit. Out of these, 70 had an initial diagnosis of PUL at ultrasound. Final ultrasound diagnosis revealed 17 (24%) to be viable pregnancies, 45 (64%) to be spontaneously resolving/failing pregnancies and 8 (11%) to be ectopic pregnancies. 91.5% of the spontaneously resolving/failing pregnancies had a serum progesterone of <20nmol/L (range <1.0-16.9) with only 8.5% having a level >20nmol/L (range 22.7-67.3). Although 6 out of the 8 ectopic pregnancies had a serum progesterone >20nmol/L, we did find 2 cases with a progesterone of <20nmol/L (1.7 and 4.0).

Conclusions
Serum progesterone is a useful tool in helping to triage and plan further follow up for cases of PUL. Of the 34 cases with a serum progesterone of <20nmol/L, 32 (94%) were spontaneously resolving/failing pregnancies and could have been safely discharged after the first visit with instructions to repeat a urine pregnancy test in 2 weeks. 23% of these had 2 or more scans which could have been avoided and reduced cost to the unit. However, 2 (6%) of the cases were found to be ectopic pregnancies requiring surgical intervention and would not have been safe to discharge. Therefore, serum progesterone should not be used in isolation but as an adjunct, along with clinical assessment, serum hcG and ultrasound, in order to plan safe but cost effective care for each individual patient.

ES25-0302
Free Communication 3 - Imaging I Laparoscopic Surgery

Saline infusion sonography in the diagnostic work-up for postmenopausal bleeding: A national survey and design of a multicentre randomized trial

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Background
Postmenopausal bleeding can be the first clinical sign of an endometrial abnormality. It can relate to several benign and malign conditions. Because of an increased risk of malignancy in postmenopausal women with abnormal uterine bleeding, evaluation is advocated. Polyps are reported up to 40% in women with postmenopausal bleeding and these polyps carry a risk of 6% for a (pre)malignancy inside. To perform a complete diagnostic work-up, recent guidelines recommends to perform endometrial sampling and a Saline Infusion Sonograhpy (SIS) if a previous transvaginal ultrasound(TVU) shows an endometrial thickness of four mm or more. The current guideline showed no consensus of the ordering of both procedures.

We decided to perform a national survey to assess the implementation of the advocated diagnostic strategy.

Methods
We performed an online survey on the current use of SIS/GIS and endometrial sampling. Furthermore, we wanted to gain more information about the different methods to combine the SIS and endometrial sampling which are used throughout The Netherlands. In total 178 of the registered 983 gynaecologists (18.1%) responded on our online survey. The responses came from 60 of the currently over 80 different general plus 8 academic hospitals in The Netherlands.

Results
The survey showed that 59,7% of all the responders combined the SIS/GIS with endometrial sampling (Pipelle) and also that this group was divided about the order in which the two investigations were performed.

Conclusions
Based on the survey and literature we were not able to validate a conclusion which order is superior to the other. Hypothetically, the fluid of the SIS can affect the quality of the Pipelle aspiration.

For this reason we decided to design a randomized trial (ESPRESSO TRIAL) to investigate the quality of the endometrial sample (Pipelle) when performed before or after SIS in postmenopausal women. The study will be performed in two teaching hospitals in The Netherlands and we will include women with postmenopausal bleeding and an endometrial thickness of four mm or more. The study protocol is registered in the Dutch trial register NTR5690.

ES25-0040
Free Communication 3 - Imaging I Laparoscopic Surgery

Digestive functional outcomes following conservative or radical surgery in large deep endometriosis infiltrating the rectum: ENDORE randomized trial

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Background
The aim was to compare postoperative digestive outcomes following respectively conservative and radical surgery in large deep endometriosis infiltrating the rectum (ENDORE, NCT 01291576).

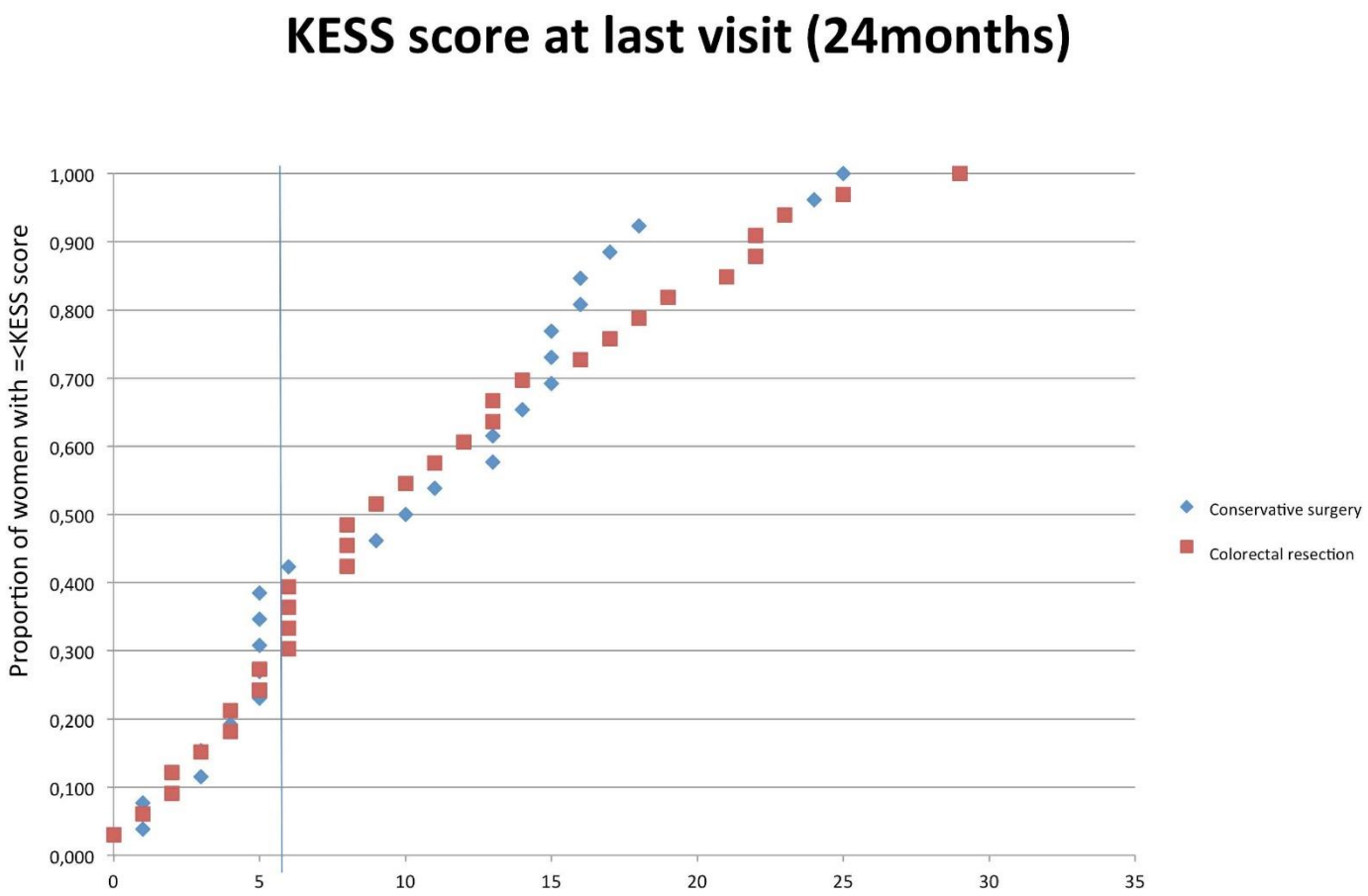
Methods
Prospective, in intention to treat, randomized trial, enrolling patients with deep endometriosis infiltrating the rectum up to 15 cm from the anus, for whom rectal involvement exceeds 20 mm on length, the muscular layer on depth, and up to 50% on rectal circumference. Patients underwent conservative (shaving or disc excision) or radical rectal surgery (colorectal resection) in three tertiary referral centers. Main outcome focused on postoperative digestive function assessed 24 months postoperatively using the Knowles-Eccersley-Scott-Symptom Questionnaire (KESS), the Gastrointestinal Quality of Life Index (GIQLI), the Wexner scale and the Bristol Stool Chart.

Results
60 patients were enrolled during 30 months. 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%). In the arm of radical surgery, 33 patients had colorectal resection. In women with disc excision, largest disc diameter was 47 +/- 14mm (range 20; 70). In the arm of radical surgery, the length of colorectal specimen was 97 +/- 48mm (range 20; 200mm).

Two rectovaginal fistulae occurred in 2 patients in the arm of conservative surgery (7.4%), however one of them actually underwent colorectal resection. Four patients (12.1%) presented a stenosis at the level of colorectal anastomosis in the arm of radical surgery, requiring complementary procedures (P=0.06). Postoperative severe rectorrhage from the stapled line occurred in 3 patients (9.1%) in the arm of radical surgery (P=0.11).

In intention to treat and per protocol comparisons of overall values of KESS, GIQLI, Wexner and Bristol scores did not reveal significant differences between the two groups. Respectively 63% and 57% of patients estimated having normal bowel movements 2 years after the surgery

(P=0.66).



Two years after the surgery, women with pregnancy intention got pregnant in respectively 64.3% and 52.4%, while 66.7% and 72.7% of pregnancies were spontaneous.

Conclusions

Conservative surgery is feasible in more than 90% of patients managed for large rectal endometriosis. Two years postoperatively, women managed by either conservative or radical surgery for large rectal endometriosis present comparable digestive functional outcomes.

ES25-0080
Free Communication 3 - Imaging I Laparoscopic Surgery

Trends in mode of surgery of benign hysterectomy relative to FDA power morcellation recommendations

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Background
The objective of this study was to assess the trends in mode of surgery for benign hysterectomy at a tertiary care academic institution with respect to the issuance of power morcellation guidelines by the FDA in 2014.

Methods
This study is a retrospective chart review of all patients who underwent a hysterectomy for benign indications at Brigham and Women's Hospital in Boston MA, USA from 2013-2015. Patients were identified from hospital coding records and clinical data extracted from electronic medical records. The rates of abdominal, vaginal, laparoscopic and robotic-assisted laparoscopic hysterectomy, as well as the rates of post-operative complications, 60-day readmissions, reoperations and length of stay, were compared over the study period. Postoperative complications were classified using the Clavien-Dindo complication rating. Analysis were performed using multivariable linear, multinomial and logistic regression. Regression models were adjusted for potential confounders.

Results
From 2013 to 2015, 1530 patients underwent a benign hysterectomy. There was a slight but non-statistically significant change in mode of hysterectomy over time. Comparing 2013 to 2015, abdominal hysterectomy increased by 4.4% (12.9% vs. 17.3%), vaginal hysterectomy increased by 1.2% (17.9% vs. 19.1%), laparoscopic hysterectomy decreased by 6.2% (66.1% vs. 59.9%), and there was little change in the frequency of robotic-assisted laparoscopic hysterectomy. From 2013 to 2015 there was a significant decrease in supracervical hysterectomy, by 16.2%. Both 2014 and 2015, when compared to 2013, showed significantly shorter operating room (OR) times and shorter length of stay but an increase in estimated blood loss (47 vs. 56 mL, p=0.05). Additionally, the cases in 2014 were associated with fewer post-operative complications compared with 2013 but there was no significant difference between the year of surgery and incidence of intraoperative complications, readmission or reoperation.

Conclusions
We did not observe a significant shift in mode of hysterectomy or perioperative outcomes at our institution following the FDA's 2014 safety recommendations regarding morcellation, although rate of supracervical hysterectomy did decrease markedly. With changing practice patterns and vigilance surrounding power morcellation, gynecologic surgeons may still offer patients minimally invasive procedures with all the accompanying advantages.

ES25-0006
Free Communication 3 - Imaging I Laparoscopic Surgery

Comparison of the recurrence rate after conservative laparoscopic surgery of endometrioma between combined with medical treatment postoperatively and bilateral salpingectomy during primary surgery

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Background
Objective: To compare of the early and late recurrence rates after conservative laparoscopic surgery of endometrioma combined with medical treatment postoperatively or bilateral salpingectomy during primary surgery.

Methods
A total 72 women with advanced stage endometriosis for pelvic pain and subfertility was included in this prospective nonrandomized cohort study between August 2011 and September 2015. Inclusion criteria were advanced stage endometriosis, subfertility, pelvic pain, primary surgery and no medical treatment preoperatively. After detailed preoperative work-up, laparoscopic endometrioma excision in according to combined technique and anatomic restoration and bilateral salpingectomy for seeking permanent contraception in Group 2(n=26) was performed. All patients grouped into postoperative oral contraceptive (OC) treatment (Group 1(n=29)) and non-IVF subfertility treatment as a control group (Group 3(n=17)) in according to request of patients. Three women in Group 1, two women in Group 2 and two women in Group 3 were excluded from analysis because of the lost the follow-up. Main outcome measures were the early and late recurrence rate in three different managements.

Results
Demographic data and preoperative patient's characteristics were summarized in Table 1. Cumulative recurrence rate of four years after conservative laparoscopic surgery were 11.5%, 8.3% and 20% in OC group, bilateral salpingectomy group and non-IVF treatment group, respectively. The difference between bilateral salpingectomy and control group in terms of the recurrence rate was statistically significant (p=0.024). The cumulative recurrence rate was higher in OC treatment group than control group (p=0.016).FSH changes between preoperative and third month after surgery were not significantly different between bilateral salpingectomy group and non-IVF treatment group (p=0.43).

	OC treatment (n=26)	Salpingectomy (n=24)	No treatment (n=15)	P value	
Age(year)	24.3±5.9		35.2±8.6	26.3±4.9	0.035*
Gravida(n, min-max)	1(0-2)		1(0-3)	0(0-1)	0.36
Parity(n) n, min-max)	1(0-1)		1(0-2)	0(0-1)	0.45
Abortion(n n, min-max)	1(0-1)		1(0-1)	0(0-1)	0.39
BMI(kg/m^2)	23.4±4.7		24.2±3.9	22.1±3.6	0.17
Endometriosis scores(ASRM)	32.1±13.6		34.6±14.3	30.3±12.6	0.37
Total ASRM scores	51.3±14.2		59.7±19.2	46.8±12.3	0.29
VAS	74.4±18.2		81.6±24.3	52.7±17.2	0.31
CA-125(U/mL)	67.2±13.6		70.4±21.3	52.7±16.6	0.25
Mean follow-up(months, min-max))	48(39-54)		42(38-51)	40(33-48)	0.44

	OC treatment (n=26)	Salpingectomy (n=24)	No treatment (n=15)	P value	
Recurrence rate(n,%)	3/26(11.5%)		2/24(8.3%)	3/15(20%)	0.024**
First month	0		0	0	
Third months	0		0	0	
Six months	0		0	0	
First year	1(3.8%)		1(4.1%)	1(7.7%)	0.038
Second year	1(3.8%)		0	0	
Third year	1(3.8%)		0	1(7.7%)	0.038
Fourth year	0		1(4.1%)	1(7.7%)	
FSH changes			2.1±1.3	1.4±0.5	0.43

Conclusions

Bilateral salpingectomy in addition to conservative laparoscopic surgery of endometrioma in middle-aged women who seeking permanent contraception may decrease the cumulative recurrence rateof endometriosis.

ES25-0089
Free Communication 3 - Imaging I Laparoscopic Surgery

Hysterectomy- Vaginal, Abdominal and Robotic Laparoscopic Study: Clinical Evaluation and Cost Analysis

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Background
To evaluate and compare the postoperative clinical outcome and analysis of the hospital cost of Total Vaginal (TVH), Total Abdominal (TAH) and Robotic Laparoscopic (RLH) Hysterectomy.

Methods
This is a retrospective single-center study conducted at Emory Saint Joseph's Hospital. Patients were grouped according to the method of hysterectomy: TVH (n= 72), TAH (n=119) and RLH (n=142). Patient's data were collected from the medical records (EMR) of the office and the hospital. Postoperative outcome and cost analyses were compared in all consecutive patients who underwent hysterectomy from January 1st 2008–December 31st 2015 performed by the author.

Results
A total of 333 hysterectomies were reviewed, 230 patient questionnaires were completed (69.06%). TAH had a significantly higher hospital stay (2.8days) than TVH and RLH (1.41days). RLH had significantly higher operative time (194.11min) than TVH (119.75min) and slightly higher than TAH (181.66min). Learning curve was a factor in operative time in RLH cases as it decreased significantly from 2008 (213.25min) to 2015 (186.44min). Estimated blood loss (EBL) was significantly higher in TAH (194.16ml) than RLH (105.67ml) and TVH (97.11ml). TAH (6.9) had significantly higher reported post-operative pain level than RLH (5.59). TAH (11.13 days) had more number of days of analgesic use than TVH (7.61days) and RLH (8.43days). TAH (6.34days) had significantly higher days until self care than TVH (3.78days), TAH (43.18days) had significantly higher days until work than RLH (29.7days). No significant difference across all groups for days until first BM (TVH: 2.29 days, TAH: 2.39 days, RLH: 2.32 days). TAH (11.74) had significantly higher weeks until first intercourse than TVH (8.05) but slightly higher than RLH (9.64). Though there was a slight increase in the operative time between RLH only (192.44min) and RLH+ other procedures (lyses of adhesions, excision of ovarian cysts…etc.) (206.41min), it was not statistically significant. Hospital charges were similar in TAH ($23,252.16) and RLH ($23,686.48) but were significantly low in TVH ($18,164.65). TAH had significantly higher postoperative pain levels and days of analgesic use (6.9, 11.13) than RLH (5.59, 8.43), TVH (5.47, 7.61). TAH had significantly higher days until self-care (6.34) than TVH (3.78) but higher and not significant than RLH (5.43). TAH had significantly higher days to return to work (43.18) than RLH (29.7) and slightly higher than TVH (34.03). No significant difference across all groups for days until first BM. TAH (11.74) had significantly higher weeks until first intercourse than TVH (8.05) but slightly higher than RLH (9.64).

Conclusions
EBL and mean hospital stay is significantly less in RLH, TVH than TAH. TAH and RLH had significantly higher hospital charges and operative time than TVH. TAH had a higher level of postoperative pain, days to return to work than RLH and TVH.

ES25-0489
Free Communication 3 - Imaging I Laparoscopic Surgery

Can laparoscopic surgery for adenomyomectomy be performed safely? -The indications, surgical techniques, and postoperative outcome of laparoscopic adenomyomectomy-

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Background
The prevalence of uterine adenomyosis in nulliparae is on the increase due to the recent trend toward later marriages in Japan and it is often difficult to treat without affecting the fertility. We have usually performed laparoscopic adenomyomectomy for patients with uterine adenomyoma who desire to conserve the fertility. Our surgical results including therapeutic effect and pregnancy rate are examined.

Methods
2 surgical methods of laparoscopic adenomyomectomy are used depending on the localization of the tumor.; Wedge Resection (WR) and Double Flap method (DF). WR is performed by making a V-shaped notch to remove the adenomyotic nodule and surrounding serosa with monopolar needle. The procedure of DF is that after transverse incision, the adenomyotic nodule was removed remaining of the serosal tissue as the upper and lower flaps, and they were overlapped and sutured.
Of 75 patients who received laparoscopic adenomyomectomy in our hospital, Wedge Resection (WR) have been performed for 22 women (29.3%) with adenomyotic nodule s closed to serosal membrane and Double Flap method (DF) have been performed for 53 women (70.7%) with them closed to endometrium.

Results
According to investigation by second look laparoscopy, 45.4% had postoperative adhesions to the incision site of the uterus, and 4.5% of them had de-novo adhesion to the adnexa. There were no cases with thinning or loss of the muscle layer in the wound area.
After the surgery, the visual analog scale of dysmenorrhea was significantly decreased (9.7±0.9→3.8±2.7) , and hypermenorrhea was improved postoperatively. The cumulative pregnancy rate was 40.0% at 2 years postoperatively, and there is no severe complication except for premature birth during pregnancy and deliverly.

Conclusions
Laparoscopic adenomyomectomy was also found to be safe and useful minimally invasive surgery to conserving fertility.

ES25-0429 -
Free Communication 3 - Imaging I Laparoscopic Surgery

Difficulties in virginal laparoscopy

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Background

Laparoscopic surgery is largely dependent on good exposure and adequate maneuverability. To facilitate such surgery, various equipments and techniques have evolved. among the most important of these are the uterine manipulators, which come in various sizes and shapes. Naturally, to achieve their purpose in improving the surgical field, these devices need to be fitted, through the vagina, into the uterus.
Many cultural, ethnic, and religious groups hold a great importance for maintaining a state of "virgo intacta" of the women until they are ritually wedded. Consequently, those virgins pose a really challenging situation should they require laparoscopic surgery, which will then have to be performed deprived of the benefit of adequate uterine manipulation.

Methods

We describe the challenging situation of laparoscopic exposure for a series of virgin patients who were submitted for laparoscopic surgery for various indications. These scenarios include surgeries for advanced pelvic endometriosis, extensive pelvic adhesions, uterine fibroids, and different other pathologies.
We have explored various techniques used to improve surgical field exposure in the absence of uterine manipulator use.

Results

Adequate exposure for difficult laparoscopic surgeries, such as for endometriosis excision, myomectomy, and adhesiolysis, can still be acquired without the use of uterine manipulators in women wishing to preserve their virginity. Uterine suspension, ovarian slings, rectal manipulators, as well as other techniques, help achieve adequate laparoscopic fields for performing such challenging surgeries.

Conclusions

Adequate exposure and sufficient tissue maneuverability are crucial for a successful and safe laparoscopic surgery, especially in complicated cases. This poses a really challenging task in a group of women who, for various reasons, wish to retain their hymenal integrity, where trans-vaginal uterine handling is not an option.
However, there are some useful techniques and maneuvers that help laparoscopic surgeons navigate their ways around such obstacles, to achieve a successful and safe laparoscopic surgery.

ES25-0017
Free Communication 3 - Imaging I Laparoscopic Surgery

Validation of a pad based box trainer

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Background
The aim of this study is to describe and validate a homemade laparoscopic trainer using a pad.

Methods
The abdominal cavity was simulated with a 3 mm thickness stainless steel structure. The base is large enough for a working field. The back wall has a 90° angle to the base. On the wall, 2 holes are pierced to allow the entry of laparoscopic instruments. The top plate has an angle of 120 degrees to the back wall. It contains a window at its base that allows the camera of the pad to look through.

Results
34 residents participated to this study. The novices group (n=15) were without experience on laparoscopic surgery. The experts group (n=19) had performed 120 hours of training on laparoscopic dry lab skills, using standard trainers. All residents carried out 2 tasks using the homemade trainer (HT) and a standard laparoscopic trainer (ST). The performance of all tasks was analyzed with a simple paired t test. The comparison between the HT and ST showed no significant differences for the 2 tasks performed for each group ($p>0.05$). The experts performance of the 2 tasks was statistically different from the novices ($p<0.05$) on both trainers. Both experts (84%) and novices (87%) voted for the HT as a home trainer.

Conclusions
All participants were able to complete the required tasks on both trainers. However, both experts (84%) and novices (73%) rated positively the ST. The new trainer is a fully functional device that allows surgeons to practice their laparoscopic skills anywhere.

ES25-0021
Free Communication 3 - Imaging I Laparoscopic Surgery

Evolution of a Safer Laparoscopic Entry Utilizing a Novel Stepwise Closed Technique

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Background
Over 50% of major laparoscopic injuries occur during the initial entry resulting in significant morbidity, mortality and medicolegal issues.

The objectives of this study are to describe a simple stepwise technique to minimize major intra-abdominal injuries during closed laparoscopic access.

Methods
The Closed technique, practiced by the majority (85%) of gynecologists, involves blind Veress needle placement, CO_2 insufflation and blind trocar/cannula insertion. Two key steps of successful laparoscopy are correct Veress needle placement and avoidance of injury with the primary trocar. Our novel stepwise approach includes: 1) manual displacement of the umbilicus caudally, 2) incise umbilicus at base longitudinally with No. 12 blade, 3) insert Veress needle perpendicularly, 4) use Veress initial pressure (VIP < 10 mmHg) as an indicator of correct Veress placement, 5) insufflate to 25mmHg pressure (HIP-25), 6) use EndoTip (Ternamian) trocar-less cannula for visual entry.

Results
In 116 consecutive women, the mean (+/- SD) umbilical displacement was 6.1(1.3)cm, (range 2-9cm) and correlated with height (r = -0.3, p=0.001) and BMI (r = 0.29, p=0.001). In a randomized comparison of 283 women (umbilicus-146, LUQ-137), successful Veress placement for 1st, 2nd, 3rd attempt was for umbilical (82.8%, 7.6%, 2.8%) and LUQ (90.5%, 8.0%, 0.75%), respectively (Cochran-Armitage Trend test 0.003). Conversion from umbilicus to LUQ and LUQ to umbilicus occurred in 10(6.9%) and 1(0.75%) cases, respectively (x^2 = 0.025). Entry was successful in all cases with the EndoTip cannula at a transient intraperitoneal pressure of 25 mmHg.

Conclusions
With this novel technique, we have encountered no major injuries to bowel or vessels in over 5000 laparoscopic entries.

ES25-0193
Free Communication 4 - Laparoscopic Surgery

Trends in the readmission rates by route of hysterectomy - A single center experience

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Background
To assess the 60-day readmission rates after hysterectomy according to type of surgery (abdominal, robotic, laparoscopic and vaginal).

Methods
This retrospective study included all women who underwent hysterectomy due to benign conditions from 2009-2015 at a tertiary care academic center in Boston, MA. Readmission rates were compared among the four types of hysterectomies: abdominal (AH), laparoscopic (LH), robotic (RH) and vaginal (VH). Patient characteristics and peri-operative outcomes between the hysterectomy groups were compared using chi-square, Fisher's exact and ANOVA tests where appropriate. In addition, multivariable adjusted logistic regressions were performed to estimate the association between readmission rates and type of hysterectomy.

Results
There were 3,981 women included in the study (628 AH, 2500 LH, 155 RH and 698 VH). Women undergoing VH were older, with mean age 58.3 (SD 12.7) years compared to AH, 50.1 (SD 9.8) years, RH, 49.1 (SD 10.4) years and LH, 47.3 (SD 8.3) years P<.0001. Intra-operative complications occurred more frequently in women undergoing AH (4.8%), followed by RH (3.9%), VH (1.9%) and LH (1.6%), P<.0001. Time between discharge and readmission was not significantly different between the groups. Adjusted readmission rates were not significantly different among the groups as a whole, women receiving AH had an overall readmission rate of 3.5%, compared to 1.9% after LH 3.2% after RH and 2.9% after VH (p=0.06). However, when comparing individual groups to AH, women who had a LH had a twofold reduction of readmission rate (OR=0.52 95% CI 0.31-0.87, P=.01[1]). There was not a significant difference in readmission when RH or VH were compared individually to AH.

Conclusions
Controlling for baseline characteristics, twice as many readmissions occurred with abdominal hysterectomy compared to laparoscopic hysterectomy for benign conditions. In our series, vaginal and robotic had similar rates of readmission to abdominal hysterectomies.

ES25-0145
Free Communication 4 - Laparoscopic Surgery

Outcomes of Laparoscopic Hysterectomy In Morbid Obese Patients

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Background
High BMI is a risk factor for a big number of diseases leading to hysterectomy such as endometrial cancer, endometrial hyperplastic processes, ovarian pathology. Incedence of obese among females in Russia approximately 28,5% . The aim of the study is to define outcomes of laparoscopic hysterectomy (LH) in treatment of benign and oncogical pathology among patients with BMI>35 kg/m^2.

Methods
From 2012 till 2015 100 morbidly obese patients were underwent hysterectomy for benign and malignant pathology. The mean age was 57±8,1. The mean BMI 48,5±8,2 [range 35,64–73,2] kg/m^2, 23 patients had BMI exceeding 50 kg/m^2 and 12 had BMI more than 60 kg/m^2. Patients with malignant diseases had significantly higher BMI (52,4±8,7) compared with patients with benign diseases (46±7). 98 of these patients had laparoscopic hysterectomy, 1 had laparoscopy-assisted vaginal hysterectomy, in 1 case conversion to laparotomy was performed. We combined hysterectomy with salpingo-oophorectomy in 89%, tubectomy in 6%, mesh-colporrhaphy in 3% cases, TVT-O in 2% cases, hernia repair in 5% cases. Indications for surgery, operative time and anesthesia, length of hospital stay, complications rate and accuracy of histological diagnosis were analyzed.

Results
Operative time was 87,1±39,35min, anesthesia time was 105,2±40,6 min. The blood loss was 128,9±62,2ml, hospital stay was 4±0,85day. Indications for surgery were: myoma (15%), atypical endometrial hyperplastic processes (17%), combination of pathology of endometrium, corporis uteri and ovarian (24%). However major indication for LH was endometrial cancer in 30% cases, but in final histological result incidence was 41%. Obese women had well-differentiated forms of disease and stage according histological study: endometrial histological type (95%), FIGO IA (75,6%), G1 (56,4%). Less often FIGO IB (17,1%), FIGO IIA (2,4%), FIGO IIB (4,9%), G2 (35,9%) and G3 (2,6%) adenocarcinoma. Also we studied accuracy of histological diagnosis: 11 (26,8%) obese women diagnosis was made after LH, before surgery 7 (63,6%) of these patients had atypical endometrial hyperplastic processes and 4 (36,4%) had benign endometrial conditions. Among obese patients with oncologic pathology before surgery 3 (10%) had not histological type of cancer and 10 (33,4%) histological grade was chained. The complication rate was 11%: the most frequent were wound infections (5 cases). In 1 case bowel injury and bladder injure also in 1 case were detected and cured during LH, in 1 case vaginal cuff hematoma without reoperation, in 2 cases hydronephrosis required ureteral stenting, 1 case of troacar hernia. All these cases resolved without any consequences.

Conclusions
Hysterectomy among obese women must be vital procedure. Obesity was considered for a long time as a contraindication for laparoscopy in gynecology. According to our data, laparoscopic approach for hysterectomy is preferable in experienced hands and in well equipped OR due to low complication rate, less traumatism and fast recovery.

ES25-0110
Free Communication 4 - Laparoscopic Surgery

Obstetrical prognosis after laparoscopic myomectomy: the experience of University Hospital of Strasbourg concerning 267 cases

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Background
The aim of the present study was to present risk factors and issues of pregnancies occurring after laparoscopic myomectomy

Methods
All women who benefited from laparoscopic myomectomy between December 2004 and December 2012, at the University Hospital of Strasbourg (France) were reviewed retrospectively. Myoma location in the uterine wall was described using the FIGO 2011 fibroid sub-classification system. The following characteristics were reported: surgical indication, weight and size of the dominant myoma, number of myomas removed and hysterotomies performed, and type of suture used

Results
267 medical records were studied. Fifty patients (18.7%) were lost to follow-up after post-operative consultation. Laparoscopic myomectomy was performed for menorrhagia in 80 cases (30%), pelvic pain in 115 cases (43%) and in patients who intended to be pregnant in 72 cases (27%). Mean size of the dominant myoma was 62.7mm (5 – 150). A single myoma was removed in 180 cases (67.4%), whereas multiple myomectomy was performed in 87 patients (32.6%): 2 myomas were removed in 48 (55.2%) cases, 3 in 17 cases (19.5%) with a maximum of 12 myomas removed of the uterine wall.
The median follow-up of patients was 41 months.
65.6% of women (42 out of 64 patients) developed successful pregnancies. In total, 116 pregnancies were reported after laporoscopic myomectomy during the study period. The delay to first pregnancy was 520 days. The take-home baby rate per woman was 86.8% and 66 babies went home with the mother. 32 patients had trials of labour with a success rate of almost 82%. No uterine rupture occurred during these trials of labour. We report one spontaneous uterine rupture at 35 weeks of gestation, resulting in intra-uterine fetal death, suspected following intense pelvic pain and absence of fetal cardiac activity on ultrasound examination. This patient became pregnant 30 months after surgery, described as a 40 mm single myomectomy without uterine cavity opening, sutured with one layer. Neither accidental uterine cavity opening nor myoma characteristics (unique vs multiple, weight, size…) modified the obstetrical prognosis

Conclusions
In our opinion, with experienced surgeons laparoscopic myomectomy appears to be a feasible technique with good functional results, in particular for infertile patients, with high success rate of trials of labour (82%) and take-home baby rate per woman (almost 87%), even if the risk of uterine rupture during pregnancy exists

ES25-0117
Free Communication 4 - Laparoscopic Surgery

Ovarian Reserve Evaluation with AMH after Laparoscopic Excision of Monolateral Ovarian Endometriomas

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Background
To evaluate the effect of laparoscopic excision of monolateral endometriomas on ovarian reserve by serial antimullerian hormone (AMH) evaluation and to correlate the change in AMH levels with histologic findings of the excised cyst specimen.

Methods
A total of thirty-seven consecutive patients, aged 20 to 39, scheduled for laparoscopic surgery were operated for 3 to 10 cm monolateral cysts. Twenty-five patients with endometrioma and twelve with other benign ovarian cysts were included in the study. Serum AMH levels were determined preoperatively and at 1, 3, and 6 month after surgery. Changes in levels of this serum marker were compared according to pathology (endometrioma versus other benign ovarian cyst) before and after surgery. Comparisons were performed using the Student's t-test and analysis of variance (ANOVA). Significance was set at $P<0.05$.

Results
Before surgery the endometrioma group had lower AMH levels (2.7±2.2 ng/ml) compared with the other benign ovarian cyst group (3.4±1.9 ng/ml). A significant change was observed between the preoperative and postoperative antimüllerian hormone (AMH) levels in both groups. AMH levels were significantly decreased from the baseline value at 1, 3 and 6 months postoperatively. No significant correlation was found between AMH decrease and the presence and grade of ovarian tissue of the excised specimen.

Conclusions
Ovarian endometriomas per se may damage ovarian reserve. AMH levels decreased after laparoscopic cystectomy and the rate of decline was similar between the endometrioma group and the other benign ovarian cyst group. No correlation was found between AMH decrease and histologic findings.

ES25-0144
Free Communication 4 - Laparoscopic Surgery

Laparoscopic myomectomy: the experience of University Hospital ofStrasbourg about 267 cases.

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Background
The aim of the present study was to identify the incidence rate and type of peri-operative complications after laparoscopic myomectomy.

Methods
All women who benefited from laparoscopic myomectomy between December 2004 and December 2012, at the University Hospital of Strasbourg (France) were reviewed retrospectively. Myoma location in the uterine wall was described using the FIGO 2011 fibroid sub-classification system. Perioperative complications were classified with the Clavien Dindo surgical complications classification. The following characteristics were analyzed: weight and size of dominant myoma, number of myomas removed and hysterotomies performed, type of suture and use of techniques to reduce bleeding (GnRH analogue treatment, uterine artery embolization before surgery or uterine artery ligation during surgery).

Results
267 medical records were studied. Laparoscopic myomectomy was performed for menorrhagia in 80 cases (30%), pelvic pain in 115 cases (43%) and in patients who intended to be pregnant in 72 cases (27%). Mean size of the dominant myoma was 62.7mm (5 – 150). 386 myomas were removed. Mean operative time was 128 minutes (30 – 375); a single myoma was removed in 180 cases (67.4%), whereas multiple myomectomy was performed in 87 patients (32.6%). The uterine wall was mostly sutured with two layers (55.4%). Uterine ligation was performed in 37 cases (13.8%), preoperative uterine artery embolization in 8 cases (3.0%). GnRH analogues were prescribed to 28 women (10.5%)

The laparotomy conversion rate was 0.7% (2 patients), no other operative complication occurred. Mean blood loss was 465 mL (50 –1500 mL). Mean hemoglobin level was 2,0 points lower after surgery than before (-2.8 – 7.9 g/dL). Seven patients (2.6%) received blood transfusions. Uterine artery ligation impacted neither on blood loss nor on mean hemoglobin level change.

The average length of hospitalization was 4,9 days (2-15).

The overall complication rate was 6.4% (17 women), in particular 4 (1.5%) grade III according to the Clavien Dindo surgical complication classification: one postoperative free intra-abdominal hemorrhage diagnosed upon symptomatic anemia and radiological hemoperitoneum and one epiploic incarceration in the optical trocar foramen, both complications requiring revision surgery. Two other cases of upper digestive tract complications required endoscopic diagnosis (non-erosive antral gastritis and uvula ulcers).

Conclusions
In our opinion, laparoscopic myomectomy appears to be a feasible technique leading to a low perioperative complication rate when performed by experienced surgeons.

ES25-0179
Free Communication 4 - Laparoscopic Surgery

Direct Optical Bladeless Entry (DOBE) is a safer primary laparoscopic entry technique

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Background
To review and critically appraise evidence around safety of laparoscopic entry techniques and to provide evidence and opinion in support of emergence of direct optical bladeless entry (DOBE) as a safer alternative.

Methods
Extensive literature search was conducted in Embase, Pub Med, Ovid Medline to find good quality evidence around complications of various laparoscopic entry techniques with a view to present the emergence of direct optical bladeless entry (DOBE) as a safer alternative. A total of 56 papers were initially identified but after excluding poor quality evidence and those with duplication of information, 30 were included.

Results
The pooled risk of major complications of laparoscopic entry is about 1/1000 (Ahmad et al., 2014; Garry, 1999; Molloy, 2002). Verres needle entry (VNE) is used by 94% of gynaecologists in the UK while Open Hasson's entry (OHE) and Direct trocar entry (DTE) are used by only 5.1% and 1.1% respectively (Ahmad, Duffy, & et al, 2007) . Evidence suggests that VNE has the highest risk of major and minor complications (Ahmad et al., 2015; Molloy, 2002). The risk of major complications is 0.8/1000 in VNE, 1.1/1000 in OHE and 0.5/1000 in DTE (Molloy, 2002). OHE nearly eliminates risk of major vascular injury at the cost of higher major bowel injury (Garry, 1999; H Hasson, Reich, & et al, 1999). DTE seems to have the lowest risk for major and minor complications as compared to VNE & OHE (Ahmad & et al, 2015; Byron & et al, 1993; Molloy, 2002; RCOG Greentop guideline 49, 2008). Since it is the blind introduction of sharp instruments in the peritoneal cavity that is likely to cause the injury (RCOG Greentop guideline 49, 2008), the introduction of bladeless trocars under visual guidance seems to be safer (Hallfeldt, Trupka, Kalteis, & Stuetzle, 1999; String et al., 2001; a. Tinelli et al., 2011; A. Tinelli et al., 2013).

Conclusions
Gynaecologists have traditionally and almost exclusively used VNE as the chosen entry technique since its introduction in 1938. A large number of studies and various national guidelines critically appraising evidence have failed to show superiority of any one entry technique. The DTE has consistently been shown to have lowest rate of major and minor complications. It is reasonable to believe that injuries happen because of blind entry of sharp instruments in the peritoneal cavity. The use of bladeless optical trocar can further minimise the risks as a bladeless primary port is introduced under controlled visual guidance. We therefore propose that a Direct Optical Bladeless entry (DOBE) is an overall safer entry technique and is method of choice.

ES25-0263
Free Communication 4 - Laparoscopic Surgery

Study protocol NOTABLE study: NOTES Adnexectomy for Benign indication versus Laparoscopic Excision

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Background
To the best of our knowledge no randomised controlled studies comparing transvaginal Natural Orifice Transluminal Endoscopic Surgery (vNOTES) with the classical laparoscopic approach for adnexectomy have been reported in the literature. The objective of the NOTABLE study is to compare vNOTES Adnexectomy with the established Laparoscopic Adnexectomy for the successful removal of an benign adnexa.

Methods
The NOTABLE study is a randomized controlled, single-center, single blinded, parallel group, non-inferiority, efficacy study. The intervention is a vNOTES adnexectomy; the control is a laparoscopic adnexectomy. The study population consists of all women aged 18-70, regardless of parity, in need of a salpingo-oophorectomy for benign indication (IOTA criteria). The surgeon (JBae) is not blinded. The participant, nursing staff and outcome assessors are blinded. To achieve this, non-therapeutic incisions are made in the vNOTES group. Standard pre-, peri- ,and postoperative protocols are used. Patients are stratified according to the size of the ovary.

Results
The protocol of the NOTABLE study has been registered with the National Institutes of Health at ClinicalTrials.gov: NCT02630329. The study is currently underway at the Imelda Hospital, Bonheiden Belgium. 66 patients will be included.

The primary outcome measure is the successful removal of the adnexa with the intended approach without spilling, and without conversion to an alternative approach.

The secondary outcome measures are: proportion of women discharged on the same day, postoperative pain scores and analgesics used, postoperative infection, peri- and postoperative complications, hospital readmissions, duration of procedure, incidence of dyspareunia, sexual wellbeing, costs up to six weeks.

Conclusions
We will present the protocol of the NOTABLE study. The results of the study are expected to be ready for publication in 2018.

ES25-0243
Free Communication 4 - Laparoscopic Surgery

Incidence of occult leiomyosarcomas and atypical leiomyomas after laparoscopic morcellation of fibromas in reproductive age women.

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Background
Laparoscopic myomectomy has become a current debate issue, because of the rare occult presence of malignancy and possible dissemination of the tissue fragments during morcellation. The aim of this study is to identify the incidence of occult leiomyosarcomas and atypical leiomyomas after laparoscopic morcellation of presumed benign fibromas at the endoscopic unit of "DIAVALKANIKO" hospital, Thessaloniki and "Lefkos Stavros" hospital, Athens, Greece

Methods
In this retrospective study, the medical records of all 1908 consequative women of reproductive age (18-45 years) who underwent laparoscopic morcellation of presumed benign fibromas from 2003 to 2014 were reviewed in order to estimate the incidence of leiomyosarcomas and atypical leiomyomas

Results
No case of leiomyosarcoma and 11 cases of atypical leiomyomas: 10 bizarre and one mitotic active were diagnosed after morcellation of presumed benign fibromas

Conclusions
The absence or minimal risk of leiomyosarcomas and atypical leiomyomas respectively after laparoscopic morcellation of presumed benign fibromas, justifies the use of morcellation for tissue extraction during laparoscopy after careful preoperative work-up and selection of patients.

ES25-0437
Free Communication 4 - Laparoscopic Surgery

Long term autonomic function after Total Mesometrial Resection in early cervical cancer: A prospective case control study comparing Robotic TMMR (R-TMMR) and Laparoscopic TMMR (L-TMMR)

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Background
Prospective case control study investigating the early, and long-term women's self reported urinary, bowel, and sexual dysfunctions in early cervical cancer patients submitted to robotic TMMR (R-TMMR) and Laparoscopic TMMR (L-TMMR).

Methods
This is a prospective Case-Control study, performed at the Gynecologic Oncologic Unit, Catholic University of the Sacred Heart of Rome and Campobasso between July 2013 and April 2014. Cervical cancer patients, FIGO Stage IA2-IB1/IIA1 were submitted to Laparoscopic or Robotic TMMR. Autonomic functions were assessed within 30 days (early outcome), and 12 months after surgery (long-term outcome). Sexual sphere was evaluated using the EORTC Core Quality of Life questionnaire items for sexual functioning (QLQ-CX24).

Results
22 women underwent R-TMMR (*Cases*) and 44 patients were submitted to L-TMMR (*Controls*) for early cervical cancer.

The overall perioperative complication rate was 9.8% with no statistically differences among the two groups. Stress incontinence and sensation of bladder incomplete emptying detected respectively in 16 (24%) and 19 (29%) were the most frequent complaints reported with no statistically significant differences among the two groups. The prevalence of constipation, sensation of incomplete bowel emptying and effort during evacuation were significantly higher among L-TMMR group resulting respectively 37 % , 42.3 % and 50 %. 46 (70%) patients were sexually active. 17 women (38 %) reported low enjoyment, 25 (56%) medium enjoyment, 14 (6 %) high enjoyment without statistically significative differences among the two groups.

Conclusions
The few differences we registered for the urinary autonomic functions do not seem clinically relevant, thus making the two procedures comparable. Despite that, L-TMMR is associated with a worse gastrointestinal autonomic outcome. Further prospective trials are needed to confirm our results.

ES25-0367
Free Communication 4 - Laparoscopic Surgery

Total laparoscopic hysterectomy: does size matter?

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Background
Hysterectomy for benign conditions is one of the most common procedures in gynecologic practice. Several randomized trials and meta-analyses have shown the multiple advantages of the laparoscopic approach in terms of peri-operative outcomes. The size of the uterus is occasionally considered to be a limitation for laparoscopy. Removing a big uterus represents a challenge, irrespectively of the surgical approach, due to difficulties in mobilization and poor exposure of anatomical structures. The aim of this study was to assess the impact of uterus size on intra-operative parameters and complication rates of total laparoscopic hysterectomy (TLH).

Methods
We conducted a retrospective observational study, based on a review of medical records of patients who underwent TLH in our department, between April 2009 and April 2016 (n=412). Patient characteristics (age, medical and surgical history), surgical characteristics (surgical indication, operating time, uterine weight, duration of hospital stay), and intra and post-operative complications were analysed according to uterine weight categories [<200g, 200-499g, 500 – 999 g, ≥1000g]. The statistical analysis was performed with SPSS and $p<0.05$ was considered statistically significant. Between-group differences were analysed using linear regression and Student's t-test.

Results
The majority (98.8%) of surgical indications were benign, most commonly uterine myomas (46.8%), adnexal masses (14%) and endometriosis (11.4%). Uterine weight was less than 200g in 54.4%, between 200 and 499 g in 37.7%, between 500-999g in 7.7% and 1000 g or more in 0.3%. Five cases required conversion to laparotomy. An epigastric trocar was placed in 14.2%. Uterine morcelation was performed in 21.7% (0.5% by laparoscopic route, 20% vaginally and 1.2% combined). Mean operating time (77.5±30.8 minutes) was significantly higher in patients with bigger uterus ($R=0.306$, $p<0.05$). Post-operative hospital stay (1.7±1 days) was also significantly longer in these patients ($p<0.05$). No significant differences were found among all groups in terms of either haemoglobin variation or major and minor complication rates.

Conclusions
This study demonstrates that, in trained surgical teams, laparoscopic hysterectomy is feasible and safe even in case of big uteri, and that the laparoscopic approach even in this setting is associated with good results.

ES25-0524
Free Communication 5 - Reproductive Med I Teaching + Training I Urogynaecology

Laparoscopic hysterectomy training in animal model

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Background
Laparoscopic hysterectomy is used with increasing frequency in the treatment of uterine pathology. Despite the paradigm of surgical training was always the apprentice-tutor model, this model proves to be inadequate in the case of laparoscopic surgery, due to its long learning curves, need for large volumes of surgical procedures, insufficient availability of tutors experienced beyond ethical order to limit morbidity. We aim to demonstrate a feasibly and easily reproducible technique for the training of laparoscopic hysterectomy in animal model.

Methods
The surgical training is performed in sheep that presents a more similar anatomy to the human uterus, in groups of two surgeons at each station, performing different tasks assisted by the instructor.

Results
This model allows the training of the key steps of laparoscopic hysterectomy: coagulation and section of the round ligaments; broad ligament fenestration; coagulation and section of infundibulopelvic ligaments; dissection of the vesicouterine space; Coagulation and section of the uterine arteries; opening of the vaginal vault driven by a manipulator; suturing the vaginal vault. This model also allows the training of the management of complications, particularly of the ureter, bladder, bowel and vascular injury.

Conclusions
Training in animal model, particularly on sheep, is essential for the acquisition of advanced laparoscopic skills, including dissection and control of haemostasis.

ES25-0521
Free Communication 5 - Reproductive Med I Teaching + Training I Urogynaecology

Uterine diagnostic and therapeutic strategy to improve implantation

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Background
Successful implantation requires reseptive endometrium syncronized to the development stagge of the transferred embryo. Abnormalities in myometrial constitution has been proposed to interfere with embryo-endometrium interaction and diminish the reproductive capacity, but the data on the subtle uterine wall pathologies or the effect of surgical and or drug treatment of these lesions on fertility potential is scarse. Hysteroscopy has been recognized as a reference standard for detection of uterine cavity abnormalities. Magnetic resonance imaging (MRI) provides detailed information on the myometrial functional anatomy. In egg donation treatments optimal donor selection reduces heterogenity in embryo quality providing egg donation programme as an optimal model to assess factors contributing to the uterine factor in recurrent implantation failure. The aim of this study was to evaluate the one stop uterine diagnosis performing a transvaginal ultrasound, hysteroscopy and contrast sonography and the added value of MRI findings to improve the embryo implantation in an egg donation programme.

Methods
All women planned for an egg donation programme received a one stop uterine diagnosis performing a transvaginal ultrasound, hysteroscopy and contrast sonography. Strict hysteroscopic and ultrasound criteria to specify a normal uterus were defined and in case of abnormal findings further diagnostic and therapeutic measurements were taken. In case of myometrial enlargement, inhomogenuous myometrial structure in ultrasound, subtle laesions like endometrial defects hypervascularisation in hysteroscopy and also in case of failed egg donation an MRI was performed. The MRI findings were classified in normal, subtle laesions and abnormal moderate or severe. In case of junctional zone abnormality a minimum of 3 months of GnRH analogue treatment was given. All egg donations were performed in one center (IVI, Valencia, Spain). The primary outcome parameter was the live birth rate in correlation to the ultrasonic, hysteroscopic and MRI findings.

Results
Between years 2012 and 2015 altogether 337 women were referred to egg donation programme. Of these, 246 women were eligible for this study. Cumulative live birth rate (LBR) was 69.5%. In women with normal uterine anatomy in ultrasonic and hysteroscopic evaluation cumulative LBR was 70.0%. Women (N=80) with uterine abnormality corrected by hysteroscopic intervention had LBR of 76.3%, whereas in women (N=43) with known uterine cavity pathology but without surgical intervention LBR was 55.8%.

Pelvic MRI was performed to 77 women and uterine abnormality was encountered in 55 women. Among these, LBR was 49.0%. In women without detectable abnormality in pelvic MRI, LBR was 63.6%.

Conclusions
The preliminary results demonstrate that the one stop uterine diagnosis protocol results in a high live birth rate in a high quality egg donation programme. The incidence of MRI abnormalities in the non-pregnant group is high. We recommend to perform an MRI in cases of implantation failure.

ES25-0481
Free Communication 5 - Reproductive Med I Teaching + Training I Urogynaecology

Fertility and obstetric outcomes for curettage versus expectant management in women with an incomplete evacuation after misoprostol treatment for first trimester miscarriage: the MisoREST trial

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Background

Misoprostol treatment for first trimester miscarriage is non-invasive and cost-effective. However, incomplete evacuation of the uterus occurs in about 30% of women treated with misoprostol. Additional curettage is often performed while expectant management is save and prevents curettage in at least three out of four women. In order to inform women with an incomplete evacuation of the uterus, we compared fertility rates and obstetric outcomes.

Methods

Between June 2012 and June 2014, we conducted a multi-center randomized controlled trial (RCT) with a prospective cohort study alongside it. The study was positioned in the consortium form women's health research, and in this study 27 Dutch hospitals participated. Women were randomized after sonographic identification of incomplete evacuation of the uterus after misoprostol treatment. Women who refused randomization were asked for follow-up in the cohort. Curettage was performed within three days. A questionnaire was send one year after randomization to assess fertility rates, and a second questionnaire was sent to assess the outcome of the first pregnancy.

Results

We randomized 59 women (curettage n=30, expectant management n=29), while 197 women were followed in a prospective cohort study according to the treatment they preferred (curettage n=65, expectant management n=132). Response rate to the first questionnaire was 63% (161/256), of which 133 women (83%) wished to conceive and 28 (17%) women did not. In women treated with curettage (N=52) as well as women managed expectantly (N=83) pregnancy rates were 90%. Ongoing pregnancy rates (still pregnant at time of questionnaire or already delivered were 79% in the women treated with curettage versus 68% in the women managed expectantly (p=0.169). In the women treated with curettage, 6% miscarried versus 22% in the women treated expectantly (p0.011). Details on the outcomes of these ongoing pregnancies (preterm birth rate, hypertensive disorders, malplacentation) are being analyzed and will be ready for presentation at the ESGE.

Conclusions

In women with an incomplete miscarriage after misoprostol treatment, curettage and expectant management lead to similar fertility rates. Miscarriage was more common in women who were managed expectantly. Data on pregnancy outcomes will follow.

ES25-0167
Free Communication 5 - Reproductive Med I Teaching + Training I Urogynaecology

The impact of laparoscopic ovarian drilling on circulating anti-Müllerian hormone in women with polycystic ovarian syndrome: a systematic review and meta-analysis

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Background
Polycystic ovary syndrome (PCOS) is a common ovarian disorder affecting up to 10% of women of reproductive age and accounting for ~80% of cases of anovulatory infertility. Laparoscopic ovarian drilling (LOD) has been widely accepted as an effective second line treatment in clomiphene citrate resistant PCOS women with reported ovulation and pregnancy rates of ~80% and ~40%, respectively. However, there has been a growing concern over a possible damaging effect of LOD on ovarian reserve. The aim of this systematic review was to investigate the impact of LOD on the circulating anti-Müllerian hormone (AMH) as a surrogate marker for ovarian reserve.

Methods
Data Sources: MEDLINE, Embase, Dynamed, ScienceDirect, TRIP database and the Cochrane Library were searched electronically.

Study Selection: We included all cohort studies as well as randomized controlled trials (RCTs) that investigated changes in circulating AMH after laparoscopic ovarian drilling. The included studies were performed in the period between January 2000 to April 2016. Fifty-six studies were identified, of which four were deemed eligible for this meta-analysis, including two prospective cohort studies two RCTs.

Data Extraction: Two reviewers carried out the data extraction independently.

Results
Pooled analysis of 253 PCOS women showed a statistically significant drop in serum AMH concentrations after LOD (weighted mean difference (WMD) -2.65 ng/ml; 95% confidence interval (CI) -3.63 to -1.66) and heterogeneity between studies was high. Subgroup analysis based on follow-up period (three and six months), laterality of the LOD (bilateral) and type of AMH kit used (Immunotech) still showed a significant postoperative fall in serum AMH concentration (WMD -2.44 [95% (CI) -3.26 to -1.62], -2.56 [95% (CI) -3.66 to -1.47], -2.95 [95% (CI) -3.74 to -2.16], and -3.11 [95% (CI) -3.76 to -2.45], respectively). Sensitivity analysis was not performed as all the included studies scored high in the quality and risk of bias assessment.

Conclusions
Laparoscopic ovarian drilling seems to cause a drop in serum AMH levels, which appears to be sustained for up to six months. It remains to be determined whether this fall in circulating AMH reflects a real damage to ovarian reserve or could merely represent normalization of the high preoperative circulating AMH, which is a known feature of PCOS.

ES25-0328
Free Communication 5 - Reproductive Med I Teaching + Training I Urogynaecology

Ovarian drilling in polycystic ovary syndrome: what can we expect?

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Background

Polycystic ovary syndrome (PCOS) represents 5 to 10% of women of reproductive age. It led to infertility with anovulation. The first line therapy is induction of ovulation with citrate of clomiphene (CC). The second line treatment is medical treatment with induction of ovulation by gonadotropin or surgical treatment by ovarian drilling (by laparoscopy or by fertiloscopy). Ovarian drilling reduce the risk of multiple pregnancy and avoid hyperstimulation syndrome. Long term efficacy of the drilling is not known. The aim of this study is to analyse a cohort of infertile women with PCOS treated with ovarian drilling and particularly to evaluate long term effect of this surgery.

Methods

This study is a retrospective, observational, multicentric study. PCOS was defined with Rotterdam criteria. All the infertile women with a PCOS treated by an ovarian drilling surgery from September 2004 to December 2013 were included. Patients with a drilling for a pre implantatory diagnostic and not for infertility were excluded. Collection of data was made based on informatic and medical files. Surgical technique (laparoscopy or fertiloscopy, number of perforation, monopolar or bipolar) was determined by the surgeon. Descriptive analysis were done by STATA software.

Results

289 women with PCOS defined by Rotterdam criteria were included, 94.57% had an oligo-anovulation and 39.71% had an hirsutism. The mean of age was 30.78 IC [30.30-31.26]. Mean BMI was 25.58 kg/m² IC 95% [24.89-26.28]. The mean follicular count was 50.5 IC 95% [47.8-53.1] and the mean AMH was 13.3 ng/ml IC 95% [12.2-14.4]. 80.22% of women were treated previously with CC or another infertility treatment. Ovarian drilling were performed in 28.37% of cases by laparoscopy, in 66.31% of cases by fertiloscopy with 5.32% of laparoscopic conversion. The average number of perforation was 7.56 IC 95% [7.27-7.85] for the left ovary and 7.72 IC [7.44-8] for the right ovary. 47.4 % of women had at least one pregnancy after drilling and 20.41% had a spontaneous pregnancy. 33.92% of women with a spontaneous first pregnancy had a spontaneous second pregnancy. 11.84% of women with a first pregnancy obtained with a medical treatment after drilling had a spontaneous second pregnancy. Finally, 9.34% of women had 2 or more spontaneous pregnancy after drilling.

Conclusions

This study includes a large number of infertile PCOS women with a long term follow-up after drilling. A great number of women had a spontaneous pregnancy after drilling (for the index pregnancy or for another later pregnancy). This result suggests a long term effect of this procedure. The long-term effect of the drilling could be a real advantage for infertile PCOS women in comparison with a medical treatment of infertility.

ES25-0035
Free Communication 5 - Reproductive Med I Teaching + Training I Urogynaecology

Sexual and functional outcome of Sheares vaginoplasty in 16 patients with Mayer-Rokitansky-Küster-Hauser syndrome

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Background
To evaluate the Sexual and functional outcome of of Sheares vaginoplasty in treatment of Mayer-Rokitansky-Küster-Hauser(MRKH) syndrome.

Methods
This a prospective observational study. Sixteen cases with MRKH syndrome who underwent Sheares vaginoplasty from September 2014 to June 2015 in our hospital were enrolled in this study. Patients and surgical data, follow-up information and Female Sexual Function Index (FSFI) scores were recorded and analyzed.

Results
All of the patients were completed the surgery successfully without complication or transfusion. The operative time was 18.00-59.00(41.38±8.97) min, the blood loss was 10.00-200.00(66.25±48.23) ml, and the hospitalization time after operation was 8-11(9.43±1.42) days. After six months of operation, normal external genitalia, along with a smooth, moist, soft and elastic vaginal wall with a normal vaginal mucosa, were found in these patients. The width of neovagina were 2.7cm and the length of squamous epithelialization of the neovagina was 5.00-8.50(6.90±1.12)cm. 12 of the patients had a sexual partner and became sexually active. The FSFI score was 23.1-26.2(25.8±1.2).

Conclusions
Sheares vaginoplasty provides good anatomic and functional results, and provides an alternative choice of treatment for women with MRKHS.

ES25-0149
Free Communication 5 - Reproductive Med I Teaching + Training I Urogynaecology

Obstetric outcome after hysteroscopic metroplasty : a single-center experience

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Background
Uterine malformation's rate is about 4% in general population. This rate is higher in inferile women population than in fertile women population (6,3% versus 3,8%). T-shaped uterus is often associated with an in utero dyethylstilbestrol exposure. In case of abortive disease or infertility, hysteroscopic metroplasty can be proposed to this patients. Our main criterion in judging is the obtention of a living birth. Our second criterions in judging are rate of pregnancies, rate of miscarriages, and the occurrence of obstetric complications.

Methods
This is a monocentric study about restrospective data between 1990 and 2016. Surgery was indicated in case of abortive disease or before medical assistance for procreation. We collected data about occurrence of pregnancies, its outcome and potential obstetric complications. Patients were contacted by phone. In case of failure, their usual gynecologist was contacted.

Results
In total, 112 hysteroscopic metroplasty have been performed in Centre Médico Chirurgical et Obstétrical des Hôpitaux Universitaires de Strasbourg during this period. Medium time of follow-up is about 68 monthes, variating from 1 month to 20 years. Before surgery, 157 pregnancies had been obtained (that to say 1,2 per patient) with 3 living births (that to say 2% of the pregnancies). After surgery, 94 have been obtained among 62 patients, that to say 0,8 per patient. 56 living births (59,5%) have been obtained among 43 patients, and 20 miscarriages (22,2%). Ceasarean rate is about 62,5% for this patients. During pregnancies after surgery, no case of uterine rupture have been identified and only one case of placenta accreta has been identified.

Conclusions
Hysteroscopic metroplasty seems to enhance living birth's rate for patients with T-shaped uterus and to reduce miscarriage rate.

ES25-0290
Free Communication 5 - Reproductive Med I Teaching + Training I Urogynaecology

Obstetrics and gynaecology trainees' perception of surgical competence: Are we training expert surgeons?

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Background
Development and maintenance of surgical competence is at the core of safe surgical practice. The evolution of this competence amongst obstetric and gynaecologic (O&G) trainees has not been studied. Using the CanMEDS model we investigated the perception and achievement of the different components of competence amongst UK trainees.

Methods
A questionnaire survey was conducted amongst the specialty trainees within the postgraduate school of Obstetrics and Gynaecology in the Kent, Surrey and Sussex region of United Kingdom. The participants were asked to evaluate the importance of 7 CanMEDS roles that define a competent consultant gynaecological surgeon (Medical Expert; Communicator; Collaborator; Manager; Health Advocate; Scholar; Professional). Trainees were divided into three groups based on training: junior residents, intermediate residents and senior residents. Each trainee was presented with a pro-forma for self-evaluation in achieving competencies as well as ranking the importance of every CanMEDS role on a 5 point Likert scale. The questions also included an indication of their age group. The statistical analysis of non-parametric data was performed using Mann-Whitney U test and Kruskal-Wallis test. Intergroup correlation was performed using α Cronbach test.

Results
A total Eighty-two participants responded to the survey (91% response rate). Majority were female participants (72%). The participants comprised of junior (23.2%), intermediate (51.2%) and senior (25.6%) residents. Twenty-five (30.4%) were below the age of thirty, forty-nine (60%) aged between thirty and thirty-nine and eight (9.6%) above the age of forty. The grade of the trainee did not significantly influence the perceived importance of the competence model. No significant gender difference was noted in achieving CanMEDS competencies except for professionalism. Male participants were significantly more likely to report achieving this competency ($P < 0.0008$). Senior residents were more likely to report competency in medical expertise ($P=0.001$) and management ($P=0.001$).
With regards to age, oldest cohort of trainees were significantly more likely to report competency as communicator (P value 0.03), collaborator (P value 0.004), health advocate (P value 0.04), scholar (P value 0.01), professional (P value 0.02).

Conclusions
Achieving surgical competence warrants training in broad range skill. Developing these technical and non-technical skills will lead to proficiency in the multiple domains of surgical competence. CanMEDS emphasized that making a competent consultant is based upon achieving expertise in each of those roles.

The O&G trainees acknowledge the importance of surgical competence, ample opportunities exists for enhancing the current training paradigm.

Quality improvement projects, journal clubs, trainee collaboratives, involvement in multidisciplinary team meetings and leadership courses are examples of vehicles which can help develop and maintain the skills required of a competent gynaecological surgeon.

ES25-0514
Free Communication 5 - Reproductive Med I Teaching + Training I Urogynaecology

Evaluation of mental load during elective gynaecological surgery

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Background
mental load (ml) is a gauge of information process capacity. the operating theatre is a complex high risk environment. it has been recognised that 50% of preventable errors in surgery occur in the operating theatre. ml has been postulated to influence the threshold for errors. there are several factors which can influence the ml experienced by the surgeons during the procedure. an understanding of this in surgery can shape the operational policy. this is the first such study to explore the ml during elective surgery.

Methods
data was collected from a single hospital during 108 elective gynaecological procedures. information regarding patient and procedure profiles, theatre lit characteristics as well as the degree of impact by intraoperative factors were collected. the primary surgeon and where applicable the first assistant provided feedback regarding the mental load using the subjective mental effort questionnaire (smeq). this is a single scale, convenient questionnaire with a linear scale from 1 to 150. non-parametric and chi square tests were performed.

Results
data was collected from 183 feedbacks during 108 procedures. the who safety checklist was completed prior to every case. procedures were divided into minor (n=34), moderate (n=42) and major (n=32). procedure complexity significantly affects mental load (p=0.003). the grade of the primary surgeon did not appear to influence the ml (p=0.12). this is because the trainee proportionately performed significantly more minor procedures as primary surgeons (p0.01). the asa grade (p=0.88), theatre start time (p=0.98) did not significantly influence ml. amongst consultants, surgical capacity (p=0.004), technical issues (p=0.004), time (p=0.002) were a more significant issue than amongst trainees. patient factors (p0.057), team (p=0.09) and equipment (p=0.06) were equally important issue in terms of the relative impact of the different intraoperative factors.

Conclusions
ml is influenced by multiple factors. procedural complexity is the most significant factor affecting ml. in addition, the relative impact of the different sources of ml varies between trainers and trainee. in the future, we propose a multicentre procedure specific study to ascertain further details which can minimise ml during elective gynaecological surgery.

ES25-0037
Free Communication 5 - Reproductive Med I Teaching + Training I Urogynaecology

Vaginal dehydroepiandrosterone – to minimize risk of synthetic mesh augmentation

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Background
Restoring of proper estrogenization of vaginal mucosa plays an important role in pre- and postoperative treatment of large number of patients with urinary incontinence and pelvic organ prolapse (POP) who are mostly postmenopausal. High incidence of complications related to the implantation of synthetic materials stimulate search for additional methods for prevention of complications. Actually, the only therapeutic option is oestrogen therapy, which acts locally but also increases systemic level of sex steroids. According to recent data from the literature intravaginal administration of dehydroepaidnrosterone (DHEA) metabolized by intracrine mechanisms, brings the same benefits like oestrogen therapy, keeping steroid concentrations within normal postmenopausal values. The objective of this study was the development of intravaginal globules containing DHEA and comparison of the effects of vaginal topical therapy with DHEA, oestradiol or antibiotic. Globules containing DHEA are not available on the market.

Methods
Research was divided in two phases: laboratory (development of intravaginal globules) and clinical (use of developed drug after POP vaginal repairs). In laboratory phase of the study nine types of globules containing 6,5mg DHEA on different base optionally with addition of surfactants were formed. Equilibrum dialysis and high-performance liquid chromatography were used to assess release of DHEA from the formulations. In clinical phase of the study ninty patients, reffered for mesh augmentation due to POP, were randomly assigned to one of three groups receiving different topical treatment in postoperative period (antibiotic, oestradiol or DHEA). At admission to hospital and at follow-up the vaginal pH, serum level of oestradiol, DHEA-sulfate, testosterone, vaginal maturation index and vaginal symptoms were assessed.

Results
Globules on the base made from PEG 1000 characterized the highest percentage of released DHEA. In the groups of patients who underwent topical therapy with oestradiol and DHEA significant decrease in the number of parabasal cells in the vaginal smears, decrease in vaginal pH, and decrease of vaginal symptoms were observed. In the both groups the number of superficial and intermediate cells was also higher. In the patients who received oestradiol intravaginally statistically significant increase in the serum level of this hormone was observed while it decreased in the other groups.

Conclusions
Results of this study confirm intracrine mechanism of DHEA action. Topical therapy with DHEA and oestradiol in postoperative period improve maturation index, decrease vaginal pH and vaginal symptoms. The benefits of topical therapy with DHEA after pelvic organ prolapse vaginal repairs brings similar results like with oestradiol, without systemic exposure to sex steroids above levels observed in postmenopausal women. Globules with DHEA after introducing on the market may be safe and effective therapeutic option which could be used in pre- and postoperative period after vaginal or abdominal mesh augmentation for prevention of complications, especially vaginal erosions, due to benefit action on vaginal mucosa.

ES25-0414
Free Communication 6 - Oncology I Technical Innovation I Urogynaecology

Laparoscopic radical trachelectomy with pelvic lymphadenectomy for invasive cervical cancer: rationale, advantages and first results

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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. Vaginal surgery is not widely spread in oncogynecology in Russia and application of vaginal radical trachelectomy in routine clinical practice requires long training with limited radicality. Abdominal radical trachelectomy demonstrates acceptable oncologic results but poor fertility outcomes. As an alternative for these approaches laparoscopic trachelectomy was developed and began to be used in our Institute.

Methods
From October 2014 23 laparoscopic radical trachelectomies for cervical cancer stage IB1 and IB2 (after neoadjuvant chemotherapy) have been performed in our clinic. Surgical operation was divided on two phases: laparoscopic and vaginal. Pelvic lymphadenectomy, developing spaces, unroofing the ureters and parametrial dissection were done laparoscopically. Round ligaments were preserved in all cases and uterine arteries were preserved in majority of cases. Colpotomy, resection of uterine cervix with dissected parametria and uterovaginal anastomosis were performed through the vaginal route. We suppose that cold knife resection of the cervix is preferable from oncologic point of view because it allows to prevent any thermal damages of resection margins and to perform adequate pathologic evaluation.

Results
Mean operative time was 247 min, with minimal blood loss and fast recovery. We didn`t observe any significant complications in this group of patients. In 3 patients fertility sparing procedure was abandoned due to positive lymph nodes or resection margins and radical hysterectomy was performed. At median follow up of 10 month 1 recurrence in residual cervix was observed 7 month after surgery and this patient received chemoradiation therapy. All other women have no evidence of disease, demonstrates normal menstrual pattern. To date we have information about two pregnancies: 1 patient is pregnant now (12 weeks), and in 1 patient premature delivery has occurred.

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 IB1 (>2cm) and 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 expect that combination of minimally invasive and vaginal surgery with their advantages will show acceptable oncologic and fertility outcomes.

ES25-0418
Free Communication 6 - Oncology I Technical Innovation I Urogynaecology

Incidence of evolution of uterine sarcomas in a cohort of patients referred for treatment of fibroids by MIS on over 14 years

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Background

The FDA reported an overall incidence of 1/400 sarcomas in a general population of uterine fibroids.

We present one of the largest series of sarcomas diagnosed among a continuous cohort of 3275 patients referred for fibroid treatment by MIS and discuss the dramatic increase of the incidence on over fourteen years

Methods

We present a prospective study of incidence, pre operative diagnosis and treatment of uterine sarcomas among a continuous cohort of 3275 patients referred for uterine fibroids to be tretaed by Minimally Invasive Surgery of Uterine artery Embolization between 01.01.2002 and 01.01.2015. All patients had a clinical examination,endometrial sampling,pelvic ultrasound, MRI. Patients were treated by laparoscopy, hysteroscopy,vaginal procedure, Uterine Artery Embolization {UAE) or a combined procedure of UAE and MIS,both first described in our department in 1997 and 2002 respectively,or by laparotomy. Every diagnosis of sarcoma was reviewed by a panel of pathologists.

Results

3275 patients were referred for treatment of uterine fibroids during a 14 years period. 865 patients were treated by laparoscopy, 674 by hysteroscopy,359 patients with a vaginal procedure,286 patients by UAE. Fifteen patients had a final diagnosis of sarcoma, none of them having a MIS nor a morcellation. The PPV and NPV of MRIwas 100%. From less than 1/500 symptomatic fibroids in 2002, the overall incidence of sarcomas evolved to 1/400 in 2013,1/285 in 2014 and 1/217 in 2015, with no changes in our pre-operative diagnosis method nor further specific referral.

Conclusions

The incidence of uterine sarcoma in a continuous population of 3275 patients of diverse ethnical origins referred for treatment of fibroids was 0.46%. 1/217 symptomatic fibroids was a sarcoma. Assessed on one of the largest series of sarcomas diagnosed among fibroids we emphasize the role of MRI and Endometrial Sampling as key investigations prior to surgery. No hazard was reported due to the morcellation of an unrecognized sarcoma. The dramatic increase of sarcomas in the past three years to 1,8% in one year needs to be compared with other prospective studies.

ES25-0382
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Implementation of laparoscopic hysterectomy for endometrial cancer during past decade in the south of the Netherlands

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Background
To evaluate the implementation of laparoscopic hysterectomy for endometrial cancer within the past decade in a large clinical network in the south of the Netherlands, the Gynecological Oncology Center South (GOCS). Secondly patient and hospital characteristics associated with laparoscopic approach were determined

Methods
A retrospective cohort study was performed, including all patients that underwent primary surgical treatment for endometrial cancer in one of the 8 hospitals within the GOCS region in: 2006, 2009, 2012 and 2015. Both planned and performed surgical approach were recorded and classified as: total laparoscopic hysterectomy (TLH), laparoscopic assisted vaginal hysterectomy (LAVH) and abdominal hysterectomy (AH).

Results
A total of 634 patients with endometrial cancer were included in the study. Within the study period there was a gradual increase of both TLH and LAVH when compared to AH. In 2006 a laparoscopic approach (TLH and LAVH) was used in 5.1% (n=7) of the patients, compared to 17.8% (n=31) in 2009, 50.3% (n=86) in 2012 and 75.2% (n=115) in 2015. Within the GOCS region, one large teaching hospital was shown to be an early adaptor, starting with laparoscopic surgery before 2006, whereas non-teaching hospitals showed to be late adaptors, implementing laparoscopy after 2012. The use of LAVH preceded the implementation of TLH in the majority of the hospitals (5/8). In 23 (9.6%) cases, the laparoscopic procedure was converted to laparotomy. Overall, there were no differences with respect to the complication rate. Yet, the complication rate during surgery was higher for laparoscopic hysterectomy compared to abdominal hysterectomy, 7.9 % and 2.5 % respectively, whereas the postoperative complication rated was lower in the laparoscopic hysterectomy compared to abdominal hysterectomy, 2.9% and 11.9% respectively. The likeliness of a laparoscopic approach was not related to Body Mass Index, Diabetes Mellitus and previous abdominal surgery. However, there was a significant association between teaching hospital and the likeliness of a laparoscopic approach.

Conclusions
Laparoscopic hysterectomy is currently the standard of care for surgical treatment of endometrial carcinoma in the south of the Netherlands. The use of LAVH preceded the implementation of TLH in the majority of the hospitals. The implementation of TLH was faster in teaching hospitals compared to non-teaching hospitals.

ES25-0350
Free Communication 6 - Oncology I Technical Innovation I Urogynaecology

Safety and feasibility of ultrasound guided, transvaginal uterine biopsy taking for research in adenomyosis

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Background
Adenomyosis is common in pre- and perimenopausal women and represents both a diagnostic and therapeutic challenge. This is especially the case in younger women with adenomyosis suffering from pain and infertility, as hysterectomy is not a valid treatment option. While this population of women imposes the biggest therapeutic challenge, all experimental and most clinical studies are performed on specimen with extensive disease and from women in their late reproductive phase. This represents a bias when adenomyosis in younger women is assessed. The objective of this study is to evaluate if it is safe and feasible to obtain in-vivo biopsies of adenomyotic lesions. This could enable research on adenomyotic tissue in young women suffering from adenomyosis .

Methods
This is a prospective, non-randomized study. 100 premenopausal women scheduled for hysterectomy on various benign indications will be included in the study. We took four biopsies using a 16, 18 or 20G tru-cut biopsy device, guided by transvaginal ultrasound. We avoided the uterine cavity in order not to contaminate the sample with eutopic endometrial glands. Under the subsequently performed hysterectomy, any damage to the pelvic organs and other complications were documented. Two of the four biopsies were analyzed histologically, the others snap frozen for further research purposes.

Results
Preliminary results of this study include 71 women. The study is still recruiting and final results, as well as a video demonstrating the procedure, will be presented during the upcoming ESGE congress in October 2016. Biopsies were so far obtained in 61 (86 %) of cases. We did not obtain biopsies due to risk for complications in two women and due to logistical reasons in eight women. No serious complications were observed. Harmless puncture of the peritoneum, urinary bladder or uterine serosa was seen in 42 women (69%). The estimated mean amount of free blood in the abdominal cavity after the procedure was 14 ml (0-160 ml, SD 30). In 30 women (49 %), no free blood was observed. Mean time used for obtainment of the biopsies was 6.6 minutes (SD 1,8). Adenomyosis is so far histologically confirmed in the hysterectomy specimen from 35 women (47 %). In six of these women (17 %), the biopsy cores also contained adenomyosis.

Conclusions
The preliminary results of this study indicate that the performance of transvaginal ultrasound-guided, uterine biopsies is a safe and feasible procedure. The yield of adenomyotic tissue should be improvable in the ongoing study. The main benefit, compared to earlier described procedures, is that contamination with eutopic endometrial cells from the uterine cavity can be avoided. This is likely to be advantageous in experimental studies on adenomyosis.

ES25-0473
Free Communication 6 - Oncology I Technical Innovation I Urogynaecology

Transvaginal NOTES in adnexal surgery – Case series

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Background

Natural Orifice Transluminal Endoscopic Surgery (NOTES) is a minimally invasive surgery approach using body natural orifices to access the peritoneal cavity, leaving no visible scars. In spite of being technically challenging, in experienced hands NOTES appears to be a feasible technique to several surgical procedures, with less post operative complications and pain, and better overall patients' satisfaction. There is few published information about pure transvaginal NOTES (TV-NOTES) for gynaecological procedures.
The aim of this study is to review all cases of TV-NOTES for adnexal procedures the authors preformed, in order to evaluate the security, feasibility, reliability, advantages and disadvantages of this technique.

Methods

The authors reviewed all cases of TV-NOTES for adnexal procedures performed in Hospital Lusíadas Porto from 2012 to 2016. Clinical data was evaluated, concerning patients' profile, surgery's indication, surgery details, expected and unexpected complications during or after the procedures, outcomes and patients satisfaction.

Results

10 patients underwent transvaginal NOTES because of adnexal pathology. These including adnexectomies, salpingectomies and cystectomies. All of the 10 procedures were successfully completed, with no need for an additional port. There were no expected or unexpected complications during procedures. All of the patients needed minimal postoperative analgesia and were discharged the day after surgery. There were no complications after surgeries, including infection, hernia or vaginal wound dehiscence. No patients complained of dispareunia.

Conclusions

Our case series shows that pure TV-NOTES seems to be a safe and desirable approach to the adnexa, with evident advantages comparing to conventional laparoscopy.

ES25-0048
Free Communication 6 - Oncology I Technical Innovation I Urogynaecology

Robotic surgery of congenital complete vaginal and cervical atresia

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Background
To summarize and analyze clinical characteristics and robotic surgery features of congenital complete vaginal and cervical atresia.

Methods
Clinical observation of 4 patients diagnosed of congenital complete vaginal and cervical atresia and underwent robotic assisted reconstruction of cervix and vagina by SIS (small intestinal submucosa, SIS) graft (Cook Medical, USA) and/or fusion of hemi-uterus during 2015. The follow-up was about 7 months.

Results
Patient age was 12 to 17, the average was 13.75 ±2.2. All the patients complained of severe periodic pain of abdomen. Mammary development and serum sex hormone were within normal range. 1patient has single kidney. The diagnosis was made according to clinical characteristics, physical examination, MRI and classified by ESHRE/ESGE system. 2 patients had hemi-uterus (U4C4V4). All 4 patients underwent reconstruction of cervix and vagina by SIS graft. Fusion of hemi-uterus was performed in the 2 patients of U4C4V4. All patients have hematometra more than 4cm. The average operation time was 232.5±89.2 min, average blood loss was 225.0±95.7ml. After surgery all patients have normal menstruation without pain. They insist to wear vaginal mould 24 hours per day. The average follow up was 7 months. The average length of the vagina was 8.9±0.3cm, average width was 3±0 cm.

Table. Clinical characteristics of 4 patients of congenital complete vaginal and cervical atresia.

Characteristics	Patient1	Patient2	Patient3	Patient4
Age (years)	12	13	13	17
Periodic pain	2 months	2 years	1month	2 years
MRI	Unicornous uterus, with the lower segment expanded to 7cm of diameter, no sign of vagina nor cervix., absent of the right kidney	Unicornous uterus, rudimentary horn of the uterus in the right side, with the hematometra of 5cm, no sign of vagina nor cervix	No sign of vagina nor cervix with the hematometra of 4cm in the lower segment	No sign of vagina nor cervix with the hematometra of 6cm in the lower segment
Diagnosis	Congenital complete vaginal and cervical atresia with hemi-uterus	As patient 1	Congenital complete vaginal and cervical atresia	As patient 3
ESHRE/ESGE classification	U4C4V4	U4C4V4	U0C4V4	U0C4V4
Operation	Robotic assisted reconstruction of cervix and vagina by SIS graft and fusion of hemi-uterus	As patient 1	Robotic assisted reconstruction of cervix and vagina by SIS graft	As patient 3

Operation time (min)	260	340	200	130
Blood loss (ml)	300	300	200	100
Menstruation （day）	7per30-40	6 per 30-40	6 per 30	7 per 30
Longth of vagina (cm)	9	8.5	9	9
Width of vagina (cm)	3	3	3	3

Conclusions

Congenital complete vaginal and cervical atresia is rare. Some patient has urinary system abnormality. Robotic assisted reconstruction of cervix and vagina by SIS graft and/or fusion of hemi-uterus is feasible and safety. However, more cases should enroll and additional studies are required.

ES25-0379
Free Communication 6 - Oncology I Technical Innovation I Urogynaecology

Minitouch endometrial ablation in an office setting without anaesthesia – 4.5 year experience

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Background
In this abstract, I am reviewing my experience of Minitouch procedures performed in an office setting over the past four and half years.

Methods
66 women with metrorrhagia/menorrhagia and no desire for fertility were treated via Minitouch over 4.5 years. A solo operator performed the procedures in a consulting office in ZNA Stuivenberg. No pretreatment, anaesthesia or cervical dilatation was employed. 400mg oral Ibuprofen, to be taken one hour preoperatively, was prescribed. Cavity was assessed via transvaginal ultrasonography. Retrospective data is presented.

Results
All 66 (100%) patients tolerated the procedure. Energy delivery was 60 to 90 seconds. Followup data is available from 59 patients from followup visits at 3 to 50 months. 52 (88%) patients were very satisfied, with vast majority reporting amenorrhea or spotting. There were no intraprocedural complications. 4 (7%) patients had a subsequent hysterectomy and were found to have adenomyosis. 1 (2%) patient underwent a subsequent TCRE procedure. She became pregnant one year later and had an uneventful pregnancy and delivery. 1 (2%) patient began menstruating after being amenorrhoeic for two years. After resection of a 2 cm submucosal fibroid and second Minitouch procedure, she is again in amenorrhoea. 1 (2%) patient underwent a subsequent rollerball ablation procedure. Intraprocedure pain scores were 4 to 9 (mean 5.8) on a 10 point scale. The patients were discharged immediately after the procedure. One patient returned within hours due to pain and cramps. She was given intravenous pain relief, admitted for observation and discharged the next day.

Conclusions
Minitouch can be performed without anaesthesia in an office setting. Safety and efficacy outcomes at up to 4.5 years are very satisfactory.

ES25-0256
Free Communication 6 - Oncology I Technical Innovation I Urogynaecology

Recognition of arterial pulsation by real time haptic feed back graspers

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Background

During laparoscopic surgery no tissue recognition exits due to the caracteristics of the laparoscopic graspers. Only by using a huge amount of force, tissue will be squeezed till the moment the tip will not move further and on that moment the limited movement of the gripper in the hand will give the sensation that the surgeon has something between the tip of the grapser fixed.

Differences between the tissue properties of arteries , veins and ureters might be of ultimate importance in complicated procedures like endometriosis or oncology.

Objective of this study was development of sensitive graspers with enhanced haptic feed back to recognize arterial pulsations.

Methods

real time measurement of tissue resistance with real time resistance differences like the pulse of small arteries have been documented in laparoscopic operations on animals.

Preparation of retroperitoneal tissue was done while the pulsations of the arteries were recorded on video and experiences of surgeons noted.

Results

even small arterial pulsations could be felt as felt with bare fingers without delay, creating the possibillity to differentiate between ureters and ailiac arteries. experiences of surgeons will be mentioned and video of registrations of pulsations presented

Conclusions

the real time haptic feed back of the developed Optigrip graspers enables surgeons to differentiate btween arteries and other structures.

ES25-0491
Free Communication 6 - Oncology I Technical Innovation I Urogynaecology

Impact of laparoscopic cervicosacropexy (CESA) and vaginosacropexy (VASA) on urinary incontinence symptoms

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Background
Urinary incontinence (UI) in women can be mainly divided into two entities: stress urinary incontinence (SUI) and urgency urinary incontinence (UUI). While an anatomical theory was proved for SUI and led to high cure rates, none of the proposed theories proposed for UUI (detrusor hyperactivity, neurogenic, myogenic, autonomous bladder and afferent signalling theory) led to any curative treatment.

Therefore, other hypothesis had to be evaluated: apical genital prolapse is often associated with UUI. Beside the anatomical outcome, surgical treatment of genital prolapse also has a curative effect on concomitant UI.

A high cure rate for UUI after apical fixation (after standardized bilateral uterosacral ligament replacement (USL), CESA and VASA surgeries) in case of advanced prolapse was already published.

Since UUI symptoms do not differ between patients with advanced and less advanced genital prolapse, we hypothesize that UUI in women is caused by defective USL.

In this study we describe the impact of standardized laparoscopic cervicosacropexy (LA-CESA) and vaginosacropexy (LA-VASA) on urinary incontinence symptoms.

Methods
Women suffering from UUI and MUI and minor apical descent. Urinary incontinence symptoms were assessed according to validated questionnaires before and four months after surgery.

The laparoscopic cervicosacropexy (LA-CESA) and vaginosacropexy (LA-VASA) procedures involves substituting both damaged uterosacral ligaments with purpose designed alloplastic PVDF-structures of defined length (polyvinylidene fluoride, DynaMesh, FEG Textiltechnik mbH, Aachen, Germany). The PVDF-structure was fixed at the vaginal vault or cervical stump tunnelled retroperitoneally following the anatomical path of each uterosacral ligament and fixed with a fixation device (ProTack Auto Suture 5mm, Covidien) into the periosteum of either side of the sacrum at S2 level.

Results
We report the first 21 women who underwent the laparoscopic CESA or VASA procedure for urinary incontinence with a medium follow-up of 14 months. All patients had minor apical descent. Mean age was 65 years (range 42 – 82) and a mean body weight of 71 kilograms. 12 patients had coexisting mixed urinary incontinence (MUI) and 9 patients urgency urinary incontinence (UUI). There were no intra-operative complications noted. Postoperative, all women had POP-Q stage 0. A 67% cure rate for urinary incontinence symptoms was noted. All 9 patients with UUI were cured of their urinary incontinence. 7 patients were offered a TOT afterwards.

Conclusions
The laparoscopic CESA and VASA procedures yielded excellent cure rates for urgency urinary incontinence. This approved the results we obtained with the abdominal CESA and VASA procedure as described recently. This holds true not only in women with advanced genital prolapse but also with a minor apical prolapse (POP-Q stage I).

ES25-0282
Free Communication 6 - Oncology I Technical Innovation I Urogynaecology

Robot-assisted sacrocolpopexy for the treatment of pelvic organ prolapse, a multicenter prospective analyses of pelvic floor function.

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Background

The popularity of robot assisted sacrocolpopexy (RASC) for the treatment of female pelvic organ prolapse (POP) is increasing. The advantages of a laparoscopic intervention are maintained but a long learning curve is evaded. As the list of publications on RASC is growing[1], the anatomic results and complications are becoming clear. However, reports on urinary function and sexual function after RASC are rare. This study evaluates prospectively safety, quality of life, micturition and sexual function.

Methods

All patients undergoing RASC in two large teaching hospitals between 2011 until 2012 were enrolled. Standard RASC was performed with prolene mesh and using the da Vinci Si-HD®. The simplified Pelvic Organ Prolapse Quantification (POP-Q), was used to describe the anatomic results. Pre- and postoperative questionnaires using the Urinary Distress Inventory (UDI-6), POP/Urinary Incontinence Sexual Questionnaire (PISQ-12) and Pelvic Floor Impact Questionnaire (PFIQ-7) were completed[2-3].

Results

166 Patients were included. Both POP-Q results for all four anatomic landmarks and urinary incontinence scores improved significantly at 12 months of follow-up (respectively p<0.001, UDI-6 score 4,9 vs 2,3 p<0,0005). The quality of life score improved postoperative and a decrease in dyspareunia was reported. Seven intra-operative complications were identified, mostly due to bladder lesions (n=2). After one year of follow-up three patients were identified with mesh exposition. One person needed a re-operation to remove this mesh and for two patients treatment in outpatient clinic was sufficient.

Patients demographics (n=166)	**Mean (range)**	**Percentage**
Age	62.4	
Body Mass Index	25.8	
Para	2.8	
Postmenopausal		80.7
History		
Hysterectomy		41.6
POP-surgery		50.0
Abdominal surgery[1]		62.0
Surgical details	**Number**	
Technique used		
1. Sacrocolpopexy	69	
2. Supracervical hysterectomy; sacrocervicopexy	94	
3. Hysteropexy	2	
	Mean (range)	**Percentage (number)**
Concomitant surgery		45.1
Rectopexy		32.5
Trans-obturator tape (TVT-O)		8.4

Operation time, minutes	186 (103-344)		
Blood loss, milliliters	65 (5-400)		
Conversion		1.8 (3)	
Intra-operative complications		4.2 (7)	
Postoperative complications		4.2 (7)	
Postoperative pain; visual analogue scale	3 (0-7)		
Length of hospital stay, nights	2.6 (1-6)		
Anatomical landmarks	**Pre-operative mean**	**12 months mean**	**p-value**
POPQ-A	2.5	1.4	<0.0005
POPQ-B	2.1	1.2	<0.0005
POPQ-C	2.7	1.0	<0.0005
POPQ-D	1.7	1.0	<0.001
Micturation			
UDI-6 total	4.9	2.3	<0.0005
Irritative	1.9	0.8	<0.0005
Stress	0.9	0.6	0.124
Obstructive/discomfort	2.1	0.9	<0.0005
Concomitant TVT-O	N=14 (18.4%)		
Postoperative TVT-O (<1 year)	N=7 (4.2%)		
Stress urine incontinence pre-operative	N=6 (85.7%)		
Quality of life/sexual function	**Pre-operative mean**	**12 months mean**	**p-value**
PFIQ-7	86.7	24.5	0.01
PISQ-12 total	31.3	36.5	0.45
Sexual active	60.5%	53.2%	0.85
Dyspareunia[2]	52.3%	33.8%	0.70

1. Including POP-surgery
2. People who are sexual active

Conclusions

This is the largest cohort, reporting prospectively on RASC. Mesh exposition was found in 1.8% of all patients. At one year follow-up the POP-Q for all four anatomic landmarks and the urinary incontinence scores improved significantly. A positive effect on the quality of life and dyspareunia was observed

ES25-0237
Free Communication 7 - Hysteroscopic Surgery I Teaching + Training I Laparoscopic Surgery

Long term reproductive outcomes after Hysteroscopic Metroplasty technique using miniaturized instruments in partial and complete septate uterus

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Background
To evaluate the long term reproductive outcomes in patients with partial and complete septate uterus treated by Hysteroscopic metroplasty using miniaturized instruments.

Methods
A prospective observational study conducted on 93 women with uterine septum diagnosed with office hysteroscopy and 3D-transvaginal ultrasound (3D-TVS): 86 with a partial, class U2a according to ESHRE/ESGE classification of uterine anomalies, (GROUP A) and with at least one of the following criteria: history of primary infertility after exclusion of other infertility factors (GROUP A1), history of repeated early miscarriages (>2) (GROUP A2); 7 women with a complete uterine septum, class U2b, (GROUP B) divided in two groups according to the same criteria: primary infertility (GROUP B1), repeated early miscarriages (GROUP B2). Outpatient hysteroscopic metroplasty was performed under conscious sedation using a 5mm hysteroscope with vaginoscopic approach and miniaturized 5Fr instruments: bipolar electrode for the removal of 3/4 of the septum, scissors to refine the base of the septum and a graduated intrauterine palpator to measure the portion of the removed septum. At the end of the procedure, an antiadhesive gel was applied into the uterine cavity to avoid post-operative adhesions. 3D TVS and second-look hysteroscopy were used to identify and resect the residual part of the septum.

Results
After a mean follow-up of 24 months, in which the patients tried to conceive naturally or throughout assisted methods, an overall clinical pregnancy rate of 61% (n=57/93) was detected with a 79% (n=45/57) of living birth rate. In table 1 the main reproductive outcomes are reported for each group.

Inclusion criteria	Pregnancy	Abortion rate	Term delivery rate *	Live birth rate *	Mode of delivery: cesarean section	Mode of delivery: vaginal delivery
GROUP A1 (n=66)	39/66(59%)	4/39 (10%)	31/39(80%)	31/39(80%)	14/31(45%)	17/31 (55%)
GROUP A2 (n=20)	14/20 (70%)	2/14 (14%)	10/14 (71%)	10/14 (71%)	6/10(60%)	4/10(40%)
GROUP B1 (n=7)	4/7 (57%)	0/4 (0%)	4/4 (100%)	4/4 (100%)	3/4 (75%)	1/4 (25%)
GROUP B2 (n=0)	0/0	-	-	-	-	-

Total (n=93)	57/93 (61%)	6/57 (10%)	45/57 (79%)	45/57 (79%)	23/45 (51%)	22/45(49%)

*Group A: 4 ongoing pregnancies

*Group B: 2 ongoing pregnancies

Conclusions

Outpatient hysteroscopic metroplasty with miniaturized instruments significally increases clinical pregnancy rates in patients with partial and complete septate uterus, class U2a and U2b according to ESHRE/ESGE classification of uterine anomalies, leading to an important number of term delivery and live birth rate. Surgical correction of Müllerian anomalies could induce a uterine remodelling involving not only macroscopic (i.e. morphology and vascularization), but also microscopic (i.e. endometrial receptivity) changes. For this reason, studies evaluating changes of endometrial receptivity after hysteroscopic metroplasty are on-going in our University.

ES25-0525
Free Communication 7 - Hysteroscopic Surgery I Teaching + Training I Laparoscopic Surgery

Gaining proficiency with new technology: ten surgeons' training experience with Acessa™

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Background
The successful adoption of a medical device or procedure can vary among practicing surgeons, and skill acquisition depends on the complexity of the technique, the surgeon's innate ability, and surgical training. We evaluated the ease or difficulty with which minimally invasive gynecologic surgeons with varying levels of experience and who were new to the Acessa procedure (laparoscopic radiofrequency volumetric thermal ablation of uterine fibroids), were able to operate safely and confidently on symptomatic fibroids using the device. We also report on the surgeons' perspectives regarding their Acessa training experience.

Methods
This study took place in 7 community and university hospitals in the United States and Canada and was designed as a post-market, prospective, single-arm, multicenter analysis of operative and early postoperative outcomes after training with the Acessa device and procedure. Surgeons were asked to complete evaluation forms once they felt they could safely and comfortably conduct the procedures.

Results
Forty self-referred premenopausal, menstruating women ≥ 18 years old, who had symptomatic fibroids <10 cm in greatest diameter (as evaluated on preoperative transvaginal ultrasound) and desired uterine-conserving treatment, comprised the patient population. Ten gynecologic surgeons without prior Acessa experience completed the 40 fibroid ablation procedures—all on an outpatient basis. Trained proctors oversaw 37 of the cases. Mean procedure time was 1.9 ± 1.0 h and tended to be shorter than the mean procedure time in the pivotal premarket study (2.1 ± 1.0 h). One hundred sixty-seven fibroids were treated and ranged in size from 2.5 to 10.2 cm in largest diameter. The mean number of fibroids treated per patient was 4.2 ± 3.3. Estimated mean blood loss for all patients was 53 ± 169 mL (median, 10 mL; range, 0–1000 mL). Mean hospitalization time (start of anesthesia to discharge from the hospital) was 6.8 ± 3.2 h. There were no device-related adverse events. However, two surgical complications occurred: a 1-cm uterine serosal laceration related to uterine manipulation and laceration of uterine-omental adhesions resulting in an estimated blood loss of 1000 mL and requiring laparoscopic suturing. Five (50%) of the surgeons voluntarily completed their procedure evaluation forms after 2–3 cases and five (50%) after 4–5 cases. The surgeons reported no problems with the effectiveness of the device. The surgeons regarded correct orientation of the ultrasound probe as the more technically challenging aspect of the procedure.

Conclusions
The Acessa procedure can be safely learned and adopted by minimally invasive gynecologic surgeons under preceptorship after 2–5 cases. Future studies will provide more information on long-term results as well as device-related events for post-market cases.

ES25-0200
Free Communication 7 - Hysteroscopic Surgery I Teaching + Training I Laparoscopic Surgery

Change from hysteroscopic resection to hysteroscopic morcellation, the initial experience of implementing a new surgical technique

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Background
To evaluate the implementation of a new surgical technique in hysteroscopic removal of endometrial polyps, fibroids and placental remnants.

Methods
A retrospective study in a university teaching hospital. We altered the surgical technique from hysteroscopic resection to hysteroscopic morcellation by implementing the Intrauterine Bigatti Shaver (IBS). The IBS-procedures were performed in women with endometrial polyps, fibroids (type 0, 1 or 2) and placental remnants at Oslo University Hospital (OUS).

Results
Since March 2016, the IBS has been used at OUS for hysteroscopic removal of fibroids, endometrial polyps and placental remnants. The outcomes for the first six months of this new technique will be ready in time for presentation at the ESGE congress in Brussels in October 2016. The surgical outcome and video demonstrations of the procedures will be discussed. In addition, the experience of implementing a new technique for the entire surgical team of nurses and surgeons is evaluated.

Conclusions
The Intrauterine Bigatti Shaver has been successfully implemented as a safe supplementary surgical technique for hysteroscopic removal of fibroids, polyps and placental remnants.

ES25-0008
Free Communication 7 - Hysteroscopic Surgery I Teaching + Training I Laparoscopic Surgery

Therapeutic hysteroscopy in an outpatient office-based setting compared to conventional inpatient treatment: superior? A cohort study

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Background
Since the introduction of smaller instruments, hysteroscopy is increasingly performed in an office-based setting. The aim of this cohort study was to compare operative hysteroscopy in office-based setting with inpatient procedures to evaluate differences in procedure and analgesia related parameters.

Methods
All office-based hysteroscopic procedures in our institute during February 2014 to October 2015 were entered for analysis. Included were morcellation of fibroids, polyps and pregnancy remnants, synechiolysis, diagnostic hysteroscopy, and endometrial ablation. Comparative cases of patients undergoing hysteroscopic surgery in the operating room were searched during the years prior to initiation of the office-based setting (2012 and 2013). During the outpatient surgical procedures, patients were moderate to deeply sedated with propofol and alfentanyl. The financial department of the hospital made a specification of costs.

Results
Two groups of 129 patients were analysed. Median operation time was significantly shorter in the office-based group (11 minutes [range 1 – 37]) compared to the operating room group (20 minutes [range 2 – 73], $p < 0.01$). Median admission time was also shorter in the office based group (135 minutes [range 60 – 150] versus 455 minutes [range 240 – 2865] ($p < 0.01$)). The number of incomplete procedures was similar (3.9% versus 2.3%, $p = 0.473$). No significant difference in surgical or anaesthesiology complications was observed. Overall complication rate was 4.7% in the office-based setting and 3.9% in the operating room setting. Financial analysis showed that procedures in an office-based setting are at least half of the costs as compared to a clinical setting.

Conclusions
Office-based hysteroscopic procedures under procedural sedation and analgesia demonstrate a low complication rate as well as shorter operation and admission time compared to outpatient procedures. Office-based hysteroscopic procedures showed lower health care costs.

ES25-0140
Free Communication 7 - Hysteroscopic Surgery I Teaching + Training I Laparoscopic Surgery

The rapid learning process of office operative hysteroscopy: a single surgeon succeeding by doing

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Background
Office hysteroscopy is a promising, rapidly advancing field of gynecologic practice that has become the current gold standard for the evaluation of the uterine cavity. Despite the growing popularity of see-and-treat hysteroscopy, the use of the procedure in the outpatient setting rather than in the operating theatre under general anesthesia remains low in some countries.

Our objective was primarily to illustrate the learning process of office diagnostic and operative hysteroscopy performed by an inexperienced single operator. Secondarily, to describe the reasons of failure of the technique and to study the relationship between various demographic and clinical factors and the outcome of the procedure.

Methods
Design**:** retrospective cohort study (Canadian Task Force classification II-2).
Setting**:** hysteroscopy outpatient clinic at a tertiary referral center.
Patients**:** 445 consecutive cases of women who underwent hysteroscopy procedure, performed by a single operator at a tertiary referral center outpatient hysteroscopy clinic, for post-menopausal bleeding, suspected polyp, thick endometrium or endometrial hyperplasia.
Interventions**:** procedures were performed using a narrow caliber hysteroscopes. The uterine cavity was distended with normal saline. The vaginoscopic approach was used in all cases. Polypectomy and Myomectomy were performed using bipolar coaxial electrode. Endometrial biopsies were done using either bipolar electrode, flexible scissors or grasping forceps. Procedures were classified as diagnostic or operative and successful or failed by reviewing the medical charts retrospectively.

Results
Groups of failure and success were compared for various demographic and clinical factors. The Surgeon's learning process was studied by calculating success rates in four equal consecutive patient groups.

Total success rate was 73.4%. Success rates of operative and diagnostic hysteroscopies were 72.6% and 76.1%; respectively. Polyps were found in 72.3% of the cases in the operative group, followed by multiple findings (>2) in 10% of the cases, and myomas in 6%. No difference was found in age, menopausal status, parity and outcome of prior pipelle endometrial sampling or prior hysteroscopy between groups of successful and failed procedures. A significant improvement in the success rate of the operative technique was observed relatively quickly, and close to maximal success rate was reached after the first 83 consecutive cases. Improvement in the diagnostic procedure was more gradual.

Conclusions
With a high level of medical staff motivation, as well as well-developed operative and communication skills, operative office hysteroscopy could be learned relatively quickly. We suggest that office hysteroscopy should be the first-line procedure based on the demographic and clinical factors we examined.

ES25-0025
Free Communication 7 - Hysteroscopic Surgery I Teaching + Training I Laparoscopic Surgery

Tertiary prevention of morbus Asherman. Evaluation of hormonal support with estrogen and gestagen post adhesiolysis

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Background

The primary objectives of management of intra uterine adhesions (IUA) are to restore the uterine cavity, to stimulate regeneration of the endometrium, to prevent reformation of adhesions and to restore normal menstruation and reproductive function.The current treatment of choice is hysteroscopic adhesiolysis. Despite restoration of the normal anatomy of the uterus, reformation of IUA and endometrial deficiency remain. Because of the high rate of reformation of IUA prevention of reformation of adhesions after surgery is essential for successful treatment.The chance of spontaneous recurrences is 20.8%-25% in moderate adhesions to 41.9% in severe adhesions. The severity of adhesions is predictive of a higher chance of spontaneous recurrence of adhesions.[2]To prevent recurrence of adhesions, multiple strategies have been investigated. High-dose oestrogen therapy has been used to stimulate endometrial growth and re-epithelisation after surgery, to form a functional separation of the uterine walls before it adheres. However this idea is empirically based and there are no randomised controlled trials to test the efficacy of oestrogen therapy in patients with IUA.

Methods

After a successful adhesiolysis and informed consent, patients were randomly divided in a group with and a group without hormone treatment using a computer program. An IUD, Cu-IUD flexi-T® with Cu removed, was inserted in the uterine cavity in all patients according to our local protocol. The randomisation was blind for the investigators. The hormone treatment consists of a schedule of oestrogen and norethisteron.
A poweranalysis was performed prior to the syudy and a the total number 110 patients were included previous and were followed for 12 months

Results

In the hormone group the percentage of recurrences was slightly lower than in the patients that did not receive hormone treatment, respectively 43.6% and 50.0%, but the difference was not significant (p=0.590). In the secondary outcomes; pregnancies, restoration of menstrual flow and endometrial thickness, there also was no difference between the groups. The outcome of pregnancy when assessed by good outcome and bad outcome was in favour of the patients who received hormone treatment with 85.0% good outcome in the hormone group to 58.8% in the non hormone group. However this difference was also not significant (p=0.136). The complications measured in the treatment group were frequent.

Conclusions

In this study we found no evidence for a positive effect of hormones on recurrence of adhesions in Asherman patients.

ES25-0337
Free Communication 7 - Hysteroscopic Surgery I Teaching + Training I Laparoscopic Surgery

15 years experience of laparoscopic myomectomy using CO2 laser: an overview of surgical data and pregnancy outcome.

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Background
To describe surgical data of the laparoscopic myomectomy cohort with CO2 laser, never described before, and evaluate reproductive outcome in patients wishing to conceive after myomectomy. Retrospective analysis of a one-centre experience.

Methods
Retrospective study of laparoscopic myomectomy (LM) in between January 2001 and January 2015. Data were retrospectively collected from the medical files of the patients, regarding medical history, surgical consideration, follow up and fertility. The surgical technique using the CO2 laser was clearly and extensively described in the presentation.

Results
620 patient underwent myomectomy between January 2001 and January 2015. 13 patients had a laparoscopy assisted by a pre planned mini-laparotomy. (LAM - 2%). 415 (66,9%) were performed with the CO2 laser, the others with the unipolar scissor at the early time of the series. 424 patients (68%) underwent pre operative MRI. Median operative time was 120 +/- 46 minutes. Median postoperative stay was 2 +/- 0,8 days and mean number of myomas removed was 2 (1-6). Postoperative complication rate was < 1% and conversion rate was 1% (6/620). None of the patient needed a hysterectomy. 365 of the 620 patients who underwent LM wished to conceive at the time of surgery. Trying to obtain pregancy was allowed after 3 months , 67 % of the pregancies were obtained spontaneously. 185 patients (50,7%) attempted to be pregnant, yielded a total of 265 pregancies and 186 healthy babies. Delivery was performed vaginally in 26,3% of case. Caesarean section indication was scared uterus for 73,7% of cases. No uterine rupture was described in this series.

Conclusions
LM using CO2 laser is feasible, with a very low rate of conversion (1%) to laparotomy and a low rate of postoperative complications. This is to our knowledge the first large series of laparoscopic myomectomy using the CO2 laser, showed very good fertility rate and no uterine rupture

ES25-0444
Free Communication 7 - Hysteroscopic Surgery I Teaching + Training I Laparoscopic Surgery

A novel surgical laparoscopic approach of cystic uterine adenomyomas using a monopolair electrosurgical LEEP device

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Background
An adenomyotic cyst is an extremely rare variation of adenomyosis. The lesion consists of a large hemorrhagic cyst, which is partly or entirely surrounded by a solid wall. It can be surrounded by myometrium, or situated submucosal, or subserosal. It is frequently associated with symptoms of menorrhagia and dysmenorrhea. Excision of focal adenomyosis of the myometrium can be difficult due to poorly defined boundaries of the lesion and increased blood supply. In three patients with single cystic adenomatous lesions in the myometrium a novel technique of monopolair electroresection was used to excise the nodules. A small LEEP device for cervical LLETZ procedures was chosen.

Methods
Design
Case series
Setting
Referral centrum for Endometriosis in a non-university teaching hospital

Patients
Three consecutive young patients with complaints of cyclic pain (n=3) and irregular blood loss (n=2) were diagnosed having single cystic adenomyomas using MRI (diameter was 17, 25 and 40 mm respectively).

Interventions
Patients received 3 month of Leuprolide acetate before surgery. Laparoscopy was performed using two 6 mm ports and one 12 mm trocar. A 10 mm by 10 mm monopolair medical loop (MDWH10W10; Medical Dynamics, Nieuwegein the Netherlands) was used on a Valleylab Electrosurgical Pencil E2515H 2014-04 (Covidien, Mansfield, US) with elongation Extended EDGE 'coated blade 6' (Medical Dynamics, the Netherlands). The electrical setting of the VIO 300 D generator (ERBE, Tübingen, Germany) was Dry Cut: 5; Spray Coagulation:1. Identification of the adenomyotic cyst was performed by observation of a different type of tissue compared to myometrium. In all cases, the cyst was opened, showing typical brownish bloody content. A small loop was used to cut small chips from the lesion. All chips were collected and retrieved in a small laparoscopic bag. In all patients the myometrium and serosa were sutured using barbed wire (V-Lock 180, Covidien, Mansfield US).

Results
In all three patients completeness of the resection was based on the aspect of myometrium at the end of the procedure. Blood loss was negligible and procedure time was less than 15 minutes (10, 12 and 13 min). Evaluation of complaints after 8 weeks following surgery revealed no pain or dysmenorrhea. Menstrual blood loss was recovered to normal.
In all cases, histopathological examination showed the presence of stroma and endometrial glands combined with smooth muscle fibers.

Conclusions
Cystic adenomyosis is an extremely rare form of adenomyosis, causing severe pain and abnormal uterine blood loss. Surgery of these lesions can be cumbersome. The above described technique, using an elongated LEEP loop for laparoscopic use, can be helpful to remove well defined and localized lesions. In all patients complaints disappeared after surgery. Use of a laparoscopic intraoperative ultrasound probe will be considered in the future to control completeness of surgery.

ES25-0348
Free Communication 7 - Hysteroscopic Surgery I Teaching + Training I Laparoscopic Surgery

Urinary tract endometriosis in patients with deep infiltrating endometriosis: prevalence and surgical outcomes

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Background
The aim of our study was to evaluate the prevalence, treatment outcomes of surgical management of deep infiltrating urinary tract endometriosis (UTE).

Methods
Retrospective analyses of patients who underwent surgery for deep infiltrating endometriosis with UTE, between June 2009 and April 2016 in a tertiary centre. The inclusion criterion was the presence of bladder and/or ureteral endometriosis. All patients were operated laparoscopically. Preoperative symptoms, intraoperative findings, intra- and postoperative complications and symptoms in the follow-up period were analysed. The statistical analysis was performed with SPSS version 23 and $p<0.05$ was considered statistically significant.

Results
Out of 209 patients presenting deep infiltrating endometriosis, 59 (28.2%) had UTE: 18 (30.5%) patients had only bladder endometriosis, 30 (50.8%) only ureteral endometriosis and 11 (18.6%) had both bladder and ureteral endometriosis. Thirty-one (52.5%) patients had a history of infertility. Ureteral involvement was bilateral in 14 (23.7%) cases, and when unilateral, it was more often left than right sided. A hydronephrosis was found in 12 (20.3%) patients. A nodule in the rectovaginal septum was present in 49 (83.1%) cases with a mean (+SD) dimension of 27.2±12.6 mm. Lesions on the sacrouterine ligament were more frequent in the group with only ureteral endometriosis ($p=0.002$).

Surgical management consisted of 27 partial cystectomies and 1 superficial shaving of bladder wall for bladder nodule removal, 2 ureteric resections with end-to-end anastomosis, 6 nephrectomies (due to ureteral stenosis with kidney function loss) and 37 ureterolyses.

Pre- and postoperative (12 months) symptoms were as follow: moderate to severe dysmenorrhea - 53 (89.8%) *vs* 2 (3.4%), $p=0.001$; moderate to severe dyspareunia - 23 (38.9%) *vs* 3 (5.1%), $p=0.02$; moderate to severe chronic pelvic pain - 9 (15.3%) *vs* 1 (1.7%), $p=0.04$ and dysuria - 17 (28.8%) *vs* 3 (5.1%), $p=0.03$, respectively.

Five cases presented with intra- or postoperative complications: 1 intraoperative rectal perforation (in a patient which also had colorectal endometriosis involvement), 1 pyelonephritis 2 weeks after surgery, 1 dehiscence of the cystorraphy, 1 postoperative intestinal occlusion and 1 postoperative anemia with need to blood transfusion. There were 5 cases of endometriosis recurrence (only one of them with urinary tract involvement) and 2 patients were re-operated for endometriosis not involving the urinary tract.

Conclusions
In our population, involvement of the urinary tract in patients with severe pelvic endometriosis is not rare. Laparoscopic management by an experienced team is feasible and safe and has a significant improvement of symptoms.

ES25-0358
Free Communication 7 - Hysteroscopic Surgery I Teaching + Training I Laparoscopic Surgery

Surgical approach to hysterectomy for benign disease: a retrospective comparison of abdominal, vaginal and laparoscopic hysterectomy in the 2011-2015 period

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Background

To describe the comparative evolution in the surgical approach to hysterectomy for benign conditions in a tertiary, university hospital during a five-year period.
Secondary aim is to assess the safety and to characterize the complication rates of each surgical approach during the study period.

Methods

Retrospective, comparative study of hysterectomies for benign disease performed between 2011 and 2015. Data were collected from electronic medical chart reviews. Groups were compared for demographic data, and intraoperative and postoperative outcomes.

Inclusion criteria: women older than 18 undergoing hysterectomy for benign conditions. **Exclusion criteria:** pregnancy, borderline tumour, emergency hysterectomy (i.e. postpartum uterine atony) and uterine malignancy. **Primary outcome** was the comparative analysis of the percentage of total hysterectomies performed either by laparoscopic (LH), laparotomic (AH) and vaginal (VH) approach. **Secondary outcome measures** were the comparative analysis of complications according to hysterectomy approach. Major intrasurgical complications were recorded. Postsurgical complications were classified following the Dindo Classification. Demographic data studied were age, BMI, history of previous surgery, surgical indication, uterine size (volume) and length of hospital stay were recorded.

Results

589 patients were included. LH rate increased from 36,2% in 2011 to 47,6% in 2015, AH decreased from 20,8% to 7,7%, whereas VH remained around 40 %.

LH and AH were significantly associated with an increased risk of intraoperative complications compared with VH (5,3% LH, 6,5% AH vs. 1,2% VH, $p<0.013$). There were 8 conversions to laparotomy: 0,4%(1) VH; 2,6%(7) LH. VH and LH were associated with a reduced risk of blood loss in ml (AH vs. VH 175,41 ml $p<0.001$; AH vs. LH 191,46 ml $p<0.001$) and transfusion (2,3% LH, 7,8% AH vs. 0% VH, $p<0.001$). Reoperation rates were 2,6% LH, 1,3% AH vs. 0% VH. LH and AH were associated with an increased risk of postoperative complications compared to VH (12,5% LH, 14,3% AH vs. 1,6% VH, $p<0.001$), being most of the complications classified as Dindo category 2.

No significant differences in BMI were observed among groups. Women undergoing LH and AH had significantly larger uterus than those undergoing VH. Hospital stay was significantly shorter for VH and LH as compared to AH.

Conclusions

While LH has steadily increased during the study period, AH has decreased and VH has remained without significant changes.

AH and LH are associated with an increased risk of complications compared to VH.

Complications linked to LH are acceptable and in consonance with literature range values.

Women undergoing LH and AH were younger and had larger uterus than those undergoing VH, while VH and LH had shorter hospital stay than AH.

Improved patient outcomes should encourage clinicians to pursue the use of VH and LH procedures for candidates to hysterectomy.

ES25-0156
Free Communication 8 - Hysteroscopic Surgery I Laparosopic Surgery I Technical Innovation I Fibroids I Endometriosis I Reproductive Medicine

Role of fertility-sparing resectoscopic surgery in conservative management of early endometrial adenocarcinoma.

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Background
Evaluation of the effectiveness of resectoscopic surgical treatment, combinated to progestin treatment, in young patients with endometrial intraepithelial neoplasia (EIN).

Methods
We enrolled 17 young women with diagnosis of endometrial intraepithelial neoplasia. In all patients, resectoscopic exeresis of the endometrial lesion including 3-4 mm of underlying myometrium and random endometrial-myometrial biopsies of uterine walls were performed and the specimens were separately sent for hystological analysis.

Results
At hystological analysis, endometrial intraepithelial neoplasia without myometrial infiltration has been diagnosed in 12 patients, while remaining five patients were submitted to hysterectomy for invasive endometrial adenocarcinoma. After resectoscopic exeresis, a progestin therapy with megestrol acetate 160 mg/die was recommended for 9 months to all patient with EIN. Every three months, all patients were submitted to hysteroscopic follow-ups with endometrial biopsy, resulting free from neoplasia. Three patient achieved a pregnancy. Two patients showed relapse of the endometrial neoplasia, so they underwent hysterectomy.

Conclusions
In last years, the incidence of endometrial adenocarcinoma progressively increases in young patients, often desiring a pregnancy. A conservative management of early endometrial cancer, proposing progestin therapy, has been described with good results. Resectoscopic surgical treatment of endometrial neoplastic lesion combinated with progestin therapy could result in a higher neoplasia response rates and improve subsequent reproductive outcome. In young patients affected by EIN, resectoscopic surgical treatment helps to better select those who would benefit from progestinic treatment, assessing myometrial infiltration and allowing an optimal cytoreduction. Probably, surgical removal of neoplastic lesion would also improve reproductive outcome.

ES25-0387
Free Communication 8 - Hysteroscopic Surgery I Laparosopic Surgery I Technical Innovation I Fibroids I Endometriosis I Reproductive Medicine

Out patient Morcellation of Submucous fibroids-Our experience.

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Background
Fibroids are one of the most common benign gynaecolical findings. Menorrhagia is one of the common referral indications in Gynaecology. Submucous fibroids result in Severe menorrhagia. Traditionally fibroid resction is carried out in the inpatient setting using a resctoscope. With the advent of Hysteroscopic Morcellators, treatment in the outpatient settings is now feasible.we share our data of the first 50 such cases

Methods
Review of hysteroscopic resections of sub mucous fibroids performed at the outpatient procedure suite, Norfolk and Norwich university Hospital, Norwich over a period of 2 years from January 2014 to January 2016. Demographic chararcteristics and proceudre details including fibroid size, cutting time, fluid deficit, operative complications are studied. Patient tolerability for every procedure is reviewed

Results
50 cases of fibroid resections were performed during the 2 year period. Hysteroscopic resection was carried out using intrauterine morcellator (Myosure, Hologic) device. Paracervical block with 0.25%bupivicaine and 1%prilocaine combination was used before cervical dilatation and entonox was readily available if patient wishes.

The procedure was well tolerated by all the 50 patients and there were no complications. The most common indication was heavy menstrual bleeding (38/50). 11/50 were postmenopausal and the procedure was needed to evaluate the endometrium beyond the fibroid or the patients had recurrent bleeding from blood vessels over fibroid with atrophic endometrium. 54% (27/50) of the fibroids were bigger than 3cm (4-6cm). The average cutting time for smaller fibroids less than 3cm was 3min, 37sec. It was slightly longer for larger fibroids more than 3cm with an average of 6min, 44sec. The median fluid deficit for small fibroids was 830ml and 1050ml for large fibroids. Histology of all the resections has confirmed benign leiomyoma. Only one patient underwent hysterectomy for continuing menorrhagia.

Conclusions
Out patient hysteroscopic resection of sub mucous fibroids is an effective, well tolerated and safe procedure. There are no serious complications, is costeffective and can be performed widely in an outpatient setting for better patient satisfaction.

ES25-0265
Free Communication 8 - Hysteroscopic Surgery I Laparosopic Surgery I Technical Innovation I Fibroids I Endometriosis I Reproductive Medicine

Collective cell migration and neurogenisis in a baboon model for deep nodular endometriosis : lessons from an experimental model

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Background
To establish an experimental model for the study of deep nodular endometriosis. The primary endpoint is to determine the implications of collective cell migration in the invasion phenomenon and the implication of neurogenesis observed in deep endometriotic lesions induced in a baboon model respectively 6 months and 1 year after induction.

Methods
We induce nodular endometriosis in thirteen female baboons (Papio Anubis) by grafting uterine specimens (endometrium and myometrium) to the peritoneal cavity. Induced nodular lesions were recovered 6 months and 1 year after grafting. We study morphology and collective cell migration markers in invasive and non invasive deep endometriotic lesions induced in a baboon model. Invasive lesions were defined as the presence of endometrial glands and stroma in surrounding organs, and a distinction was made between the center of the lesion (glands present in the main lesion) and the invasion front (glands present in surrounding organs). We evaluate the morphology of glands by analysis of noninvasive and invasive lesions (center of the lesion and invasion front). Staining was performed with specific antibodies (Ki67, E-cadherin, b-catenin, protein gene product(PGP)9.5 and nerve growth factor (NGF) for immunohistochemical study of mitotic activity, cell-cell junctions and nerve fiber density.

Results
The incidence of induced nodular endometriosis was 100%. Surrounding organ invasion was reported in more than 40% of lesions recovered after 6 months and 100% of lesions recovered after one year. Glands from invasive lesions, particularly from the invasion front, showed a significantly lower thickness coefficient, higher mitotic activity, and lower expression of E-cadherin and b-catenin than glands from noninvasive lesions and the center of invasive lesions. After 1 year, glands from the invasive front showed reduced thickness, and high mitotic activity. E-cadherin and β- catenin where similar between center and front. Nerve fiber density was significantly decreased in the lesions recovered after 6 months when compared to eutopic endometrium and myometrium but nerve fiber density was higher on the lesions recovered after 1year than eutopic endometrium and the NGF expression was found to be lower in the lesions recovered after 1year than in uterus.

Conclusions
We report altered morphology, increased mitotic activity, and fewer adhesion molecules in invasive glands present in induced nodular endometriosis, particularly along the invasion front, suggesting that collective cell migration is involved in the invasion process of deep endometriotic lesions induced in a baboon model. The invasion process and nerve development in the baboon model are becoming more serious over time. Invasive phenotype is highly expressed by the invasive front glands. This could have implications in our way to understand the invasion phenomenon related to deep nodular endometriosis spontaeously observed in women.

ES25-0392
Free Communication 8 - Hysteroscopic Surgery I Laparosopic Surgery I Technical Innovation I Fibroids I Endometriosis I Reproductive Medicine

Daycase Hysterectomy - an achievable target

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Background

Hysterectomy is one of the most frequently performed gynaecological procedures. The literature supports that vaginal hysterectomy is the safest route to remove the uterus with quicker recovery of the patients. Inspite of this only 20% of the hysterectomies perfomed in the UK between 2006-2010 for patients with Menorrhagia and fibroids were by the vaginal route.

ERBE Bi Clamp ®: Bipolar Electrosurgical Coagulation system allowed us to perform vaginal hysterectomy in most patients irrespective of uterine size, uterine descent and narrow vaginal access. Our aim is to demonstrate the safety and efficacy of day case vaginal hysterectomy using the ERBE Bi clamp.

Methods

We present our case series of 38 women who underwent vaginal hysterectomy for benign gynaecological conditions performed with bipolar energy device ERBE. Patients were selected for same day discharge as per our local guideline of enhanced recovery for vaginal hysterectomy. All the procedures were performed over a period of 13 months (2015 - 2016) at Norfolk and Norwich University Hospital. The pain relief included intraoperative pudendal block, uterosacral infiltration with local anaesthetic bupivacaine and standardised postoperative analgesia as per our enhanced recovery protocol. All patients were encouraged early mobilisation and were not catheterised. Patients discharged the same day had a telephone follow up the next day and open access to the gynaecology ward. They were reviewed in the nurse led postoperative clinic 6-8 weeks later.

Results

The women were between 31-63 years (median 46). BMI ranged from 18.5-43.27.

The size of the uterus ranged from normal to 16cm. The maximum weight of the uteri removed was 830gm. The mean operative time was 100minutes (range 49 min – 167min).

21/38 women who had vaginal hysterectomy also had unilateral or bilateral oophorectomy laparoscopically.

36/38 (95%) patients were discharged within 24hours of admission for the procedure. 2/38 women developed vault haematoma and had to stay in for more than 24 hours. Both these cases were performed on parous women with normal size uterus.

None of them needed conversion to laparotomy and there were no intraoperative complications or readmissions. There were no delayed complications upto 8 weeks. 2/38 women were seen on the ward with minor complaints within 4 weeks of discharge (1 with pain and 1 with vaginal discharge). The postoperative analgesia requirement was much less compared to the conventional vaginal hysterectomy. None of the patients required PCA or epidural.

Conclusions

Vaginal Hysterectomy using Bi Clamp electrosurgical device appears to be safe with minimal postoperative pain and complications. With 95% of patients discharged within 24 hours it has the potential to reduce health care cost and improve patients experience of care.

ES25-0315
Free Communication 8 - Hysteroscopic Surgery I Laparosopic Surgery I Technical Innovation I Fibroids I Endometriosis I Reproductive Medicine

Identifying possible pitfalls of in-bag morcellation: an evaluation using the Health Failure Mode and Effects Analysis (HFMEA)

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Background
Since the FDA statement on November 24th 2014, warning against use of power morcellators during laparoscopic myomectomy (LM) or hysterectomy (LH) , the number of laparoscopic procedures have declined in favor of laparotomy. Notwithstanding de possible risks of power morcellation in the rare cases of an undiagnosed uterine malignancy, the decline in the laparoscopic approach of myomectomy and hysterectomy may be harmful to patients. The laparoscopic approach has been shown to be favorable compared to laparotomy. In-bag morcellation is widely proposed to overcome the safety issues of 'open' power morcellation, and the feasibility of this technique has been established. However, the additional oncological safety of this procedure has yet to be demonstrated. Moreover this technique is new, uniform protocols do not exist, and many bags are deployed outside their intended use, thus creating a large margin of error. The aim of our study is to prospective evaluate all steps of the in-bag morcellation procedure followed by an identification of possible risks and pitfalls, that should be addressed before this technique is implemented as standard care in daily clinical practice.

Methods
The Health Failure Modes and Effects Analysis (HFMEA) was used to prospectively evaluate all procedural steps and risks of in-bag morcellation. As starting point a case was chosen of a woman with an unidentified stage 1 uterine leiomyosarcomas undergoing laparoscopic hysterectomy or laparoscopy. In this case, the occurrence of any tissue spill is considered to prevent full curation of the disease. Both a regular containment bag and the MOREsafe bag were evaluated.

Results
5 main steps were identified: insertion of the morcellation bag in the abdomen, placement of tissue in morcellation bag, insufflation of the bag, tissue morcellation, removal of morcellation bag. For regular containment bags, 35 subprocesses and 120 failure modes were found. For the MOREsafe bag, 39 subprocesses and 131 failure modes were found. The top 10 failure modes that need preventative measurements will be presented at the ESGE congress, as some data is still analysed at this moment.

Conclusions
The present study identifies possible pitfalls of in-bag morcellation. Following the decline in LH and LM after the FDA warning regarding power morcellators, a new technique is needed to preserve the laparoscopic approach to these procedures. In-bag morcellation is promising in this light. However, the widespread implementation in daily clinical practice without a thorough evaluation may be hazardous. There is a risk that harmful adverse effects may be revealed in the future, similar to power morcellators. We have identified failure modes of in-bag morcellation and their causes , that should be addressed before the in-bag morcellation technique can become standard care. The top 10 risks will be presented at the ESGE congress.

ES25-0287
Free Communication 8 - Hysteroscopic Surgery I Laparosopic Surgery I Technical Innovation I Fibroids I Endometriosis I Reproductive Medicine

Endometriosis digital map software

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Background
That's a project of an Endometriosis software. The software is a graphic representation of all sites of endometriosis. It should be filled at the time of surgery indication, namely with all the propaedeutics completed and the surgeon having already identified the locations affected by the disease. In this new version, it is possible to fill out a postoperative map, comparing it to the preoperative findings (MAP).

Methods
Computer software

Results
The surgeon with the MAP at the time of surgery, has a special tool that concentrates all the details of the case. This MAP can be checked at any time in surgery and may guide the surgical team, even in the absence of medical records. Postoperatively, the MAP allows an evaluation of our propaedeutics in cases of endometriosis, comparing all the sites identified in the diagram preoperatively with the surgical findings.

Conclusions
the MAP becomes an important tool for the physician self-evaluation, both on physical examination, as in the imaging. It´s possible to save patient data (demographic and patient complains) and image results as endometriosis findings, allowing it to be used for multicenter research protocols

ES25-0526
Free Communication 8 - Hysteroscopic Surgery I Laparosopic Surgery I Technical Innovation I Fibroids I Endometriosis I Reproductive Medicine

Three-year follow-up from a randomized trial of uterine-sparing techniques: radiofrequency volumetric thermal ablation (RFVTA) of symptomatic uterine fibroids and laparoscopic myomectomy (LM)

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Background
Laparoscopic myomectomy has been the gold-standard treatment for women with symptomatic uterine fibroids and who desire uterine conservation and reproductive function. However, emerging minimally invasive technologies and procedures (such as RFVTA) have been proposed as alternatives to laparoscopic myomectomy. Our objective was to compare clinical outcomes at 36 months post myomectomy and post RFVTA as well as to report on any pregnancy outcomes.

Methods
The trial was a single-center, prospective, longitudinal analysis of clinical outcomes in fifty premenopausal women ≥ 18 years old with symptomatic uterine fibroids and who were randomized 1:1 intraoperatively to either RFVTA or LM after laparoscopic (contact) ultrasound mapping of each patient's fibroids. All consenting patients desired uterine conservation and continued reproductive function and were indicated for surgical intervention for their fibroid symptoms. Thirty-six month outcomes were evaluated based on patient responses to validated questionnaires: the uterine fibroid symptom and quality-of-life (UFS-QOL) questionnaire and the EuroQol (EQ-5D) questionnaire.

Results
Currently, 35 patients (RFVTA: n = 18; LM: n = 17) have 36-month postoperative evaluations based on the validated questionnaires. Mean transformed symptom severity scores improved (decreased) for the RFVTA patients by –52.9% from the mean baseline value to 16.8 ± 14.8 at 36 months follow-up [95% CI: 9.5, 24.2]. Over the same period, mean transformed symptom severity scores improved (decreased) for the LM subjects by –52.1% to 19.7 ± 18.0 [95% CI: 10.1, 29.3]. At 36 months, health-related quality-of-life (HRQL) scores improved (increased) over baseline for RFVTA subjects by 8.2% to 88.2 ± 7.6 [95% CI: 84.4, 92.0] and, for LM subjects, by 24.5% to 85.6 ± 22.6 [95% CI: 73.6, 97.7]. Mean EQ-5D scores improved (increased) from baseline for RFVTA subjects by 18.0% to 84.9 ± 20.4 [95% CI: 76.8, 93.0] and for LM subjects by 17.1% to 78.9 ± 21.2 [95% CI: 67.6, 90.2]. There were 4 pregnancies with 4 deliveries of healthy infants in the RFVTA group and there were 7 pregnancies with 6 deliveries of healthy infants in the LM Group. RFVTA (64.3%) and LM (78.6%) subjects were moderately to very satisfied with their treatment. None of the reported differences was statistically significant.

Conclusions
Early three-year data suggest the equivalence in the clinical efficacy of RFVTA to laparoscopic myomectomy. Additional study participants will be followed to their 3-year postoperative visit, and a final data analysis will be prepared in August 2016.

ES25-0039
Free Communication 8 - Hysteroscopic Surgery I Laparosopic Surgery I Technical Innovation I Fibroids I Endometriosis I Reproductive Medicine

Test-retest reliability of different assessment methods for laparoscopic intracorporeal suturing

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Background
The use of assessment methods for laparoscopic surgical skills is becoming more common. However, the reliability of these methods should be studied. Our objective was to evaluate test-retest reliability of different assessment methods for laparoscopic intracorporeal suturing.

Methods
Twenty-one gynaecologists participated in the study, who attended a training course in laparoscopic surgery. Before the course, information about their previous laparoscopic surgery experience was registered. During the course, they had a hands-on session, where they practised intracorporeal suturing on a physical simulator for three hours. The first three repetitions and the three last ones were video recorded and then assessed blindly by an expert surgeon in laparoscopic surgery, through time, the global rating scale Objective Structured Assessment of Technical Skills (OSATS) and a validated suturing-specific checklist. Test-retest reliability was calculated through the statistical test Pearson correlation.

Results
Test-retest reliability was 0.802 for time, 0.886 for OSATS and 0.892 for the checklist, taking into account all the participants. When dividing the subjects based on their previous laparoscopic experience, test-retest reliability was 0.827 for time, 0.875 for OSATS and 0.876 for the checklist, for those with a previous experience of 0-10 laparoscopic surgeries as main surgeon (n= 16). For those participants with a previous experience of 11-50 laparoscopic surgeries as main surgeon (n= 5), test-retest reliability was 0.557 for time, 0.918 for OSATS and 0.953 for the checklist.

Conclusions
Time obtained lower test-retest reliability scores than OSATS and the suturing-specific checklist for laparoscopic suturing, being this assessment method less reliable for gynaecologists with intermediate laparoscopic experience than for novice gynaecologists.

ES25-0321
Free Communication 8 - Hysteroscopic Surgery I Laparosopic Surgery I Technical Innovation I Fibroids I Endometriosis I Reproductive Medicine

The effect Laparoscopic salpingectomy versus laparoscopic proximal tubal disconnection on serum AMH levels and pregnancy rate following IVF/ICSI

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Background
Hydrosalpinx is one of the major tubal diseases that greatly affects *in vitro* fertilization (IVF) cycle results . Proper management of this condition will markedly increase the success rate of embryo implantation inside the endometrium

Laparoscopic salpingectomy is considered a convenient intervention for management of this condition however, in recent years the effect of this operation on ovarian reserve became a matter of debate.laparoscopic proximal tubal disconnection became more preferable due to negative effect of salpingectomy on ovarian reserve

Methods
82 patients with bilateral hydrosalpinx were included in the study. After randomization
41 patients undegone laparoscopic salpingectomy and the other 41 patients had proximal tubal disconnection
AMH was measured just before the laparoscopy and repeated again on the first day of ovarian induction
IVF/ICSI was done to all patients in the same IVF unit by the same operator by using long protocol to all cases, then pregnancy rate was calculated in each group

Results
There was significant reduction of AMH in salpingectomy group in comparison to proximal tubal disconnection group
However, the ongoing pregnancy rate per patient according to the intention-to-treat principle were 10/41 after laparoscopic proximal tubal disconnection compared to 24/41 after laparoscopic salpingectomy

Conclusions
compared to laparoscopic proximal tubal disconnection ,salpingectomy may lead to reduction of ovarian reserve but has higher success rate of pregnancy after IVF/ICSI

ES25-0374
Free Communication 8 - Hysteroscopic Surgery I Laparosopic Surgery I Technical Innovation I Fibroids I Endometriosis I Reproductive Medicine

Post-operative serum AMH levels after ovarian drilling in patients with PCOS: a randomized study comparing laparoscopy and transvaginal hydrolaparoscopy

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Background
Polycystic ovary syndrome (PCOS) is the most common endocrine disorder in women in the reproductive age. In these patients Clomiphene citrate (CC) represents the first line of treatment, but approximately 20% of women do not respond and are described as "clomiphene-resistant" . Ovarian drilling has been shown to the effective increasing ovulation in PCOS patients with CC-resistance.The aim of the study was to evaluate and compare serum AMH levels after laparoscopic ovarian drilling (LOD) and transvaginal hydrolaparoscopy (THL) ovarian drilling, while the secondary outcome was to evaluate post-operative pain to assess the acceptability of the two procedures.

Methods
246 patients with PCOS CC-resistant were randomized into two different groups: 123 underwent LOD and 123 underwent THL ovarian drilling. In both groups, AMH serum levels were evaluated before and after the procedure; moreover, women were asked to rate the pain sensation and acceptability on a visual analogue scale (VAS) from 0 (no pain, perfectly acceptable) to 10 (unbearable pain, completely unacceptable) 12 hours after the procedure.

Results
In both groups, post-operative serum AMH levels were significantly reduced compared to pre-operative levels (5.84 ± 1.16 and 6.06 ± 1.18 vs 4.83 ± 1.10 and 5.00 ± 1.29; $p < .0001$). When post-operative serum AMH levels were compared, no statistically significant difference was observed between two surgical technique. No differences were observed in serum LH levels and LH:FSH ratio between the two groups before and after surgery. After the procedure, mean pain VAS score was significantly higher for women who underwent LOD ovarian drilling in comparison to THL ovarian drilling (3.26 + 1.1 vs 1.11 + 0.5; $p < .0001$).

Conclusions
Our data confirm that ovarian drilling improve the endocrine pattern in CC- resistance PCOS patients ; moreover our study suggest that THL ovarian drilling is comparable to the LOD. In addition, THL ovarian drilling results in a significant reduction of pain 12 hours after the procedure in comparison with LOD . The THL ovarian drilling would seem to be a good option, allowing a significant reduction of AMH levels comparable to those observed after LOD, with the additional benefit of being a less invasive technique that can be performed without general anesthesia, moreover it is preferred by patients in terms of acceptability. These results could support to use the THL ovarian drilling as a first-line treatment in patients with CC- resistant PCOS.

ES25-0522
Free Communication 8 - Hysteroscopic Surgery I Laparosopic Surgery I Technical Innovation I Fibroids I Endometriosis I Reproductive Medicine

Spigelian hernia causing invalidating pain mimicking nerve injury

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Background
A Spigelian hernia is a rare hernia occurring through the Spigelian fascia, which is the aponeurotic layer between the rectus abdominis muscle and the semilunar line laterally. It occurs mostly in older women and generally presents as acute pain because of a bowel incarceration or as an hernia producing from the abdominal wall. In gynaecology 1 Spigelian hernia was suggested to be caused by the lateral trocar during laparoscopy. The prevalence and symptoms of smaller Spigelian hernias is unknown.

Methods
Case report Two weeks after laparoscopic surgery for (deep) endometriosis a 25 year old sportive woman started invalidating pain in the right fossa with difficulties to walk, cross her legs, do exercise or have intercourse. Notwithstanding MRI's, Cat scans, a repeat laparoscopy, and a C-section after IVF, the diagnosis and treatment had been 'nerve' damage during the first surgery, local abdominal wall infiltrations for nerve entrapment syndrome, and anti-depressive drugs. Four years later we performed an 'explorative' laparoscopy because of this persisting invalidating pain and found a Spigelian hernia which was excised and sutured by laparoscopy. Within 24 hours this lady was almost pain free and started to exercise again 1 week later.

Results
Comment. Spigelian hernia is hardly known in gynaecology. Also we did not recognize this hernia as a Spigelian hernia during surgery. Only with the help of surgeon friends and a literature search the final diagnosis was made, and the 'nerve damage' with motoric problems was understood as antalgic. It remains surprising that this caused so much pain, which could not be explained by the little endometriosis found. A causal relationship of this hernia with a previous trocar insertion seems plausible as suggested by Tulandi.

Conclusions
As endoscopists we should know Spigelian hernias, possible secondary to trocar insertion. This will avoid erroneous diagnosis as nerve entrapment of nerve damage during surgery and when seen during laparoscopy a hernia repair will be done.

ACCEPTED ABSTRACTS FOR VIDEO PRESENTATIONS (66)

ES25-0517
Video Session 1 - Endometriosis I Hysteroscopic Surgery

Laparoscopic transvesical excision of endometriotic bladder nodule confined to bladder trigone

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Background
To demonstrate a novel technique using a laparoscopic transvesical approach for excision of an endometriotic nodule involving the bladder trigone.

Methods
Technical video demonstrating bilateral ureteric stenting and laparoscopic transvesical excision of bladder nodule confined to the trigone encroaching on ureteric orifices bilaterally

Results
A 33 year old woman presented with symptoms of urinary frequency, nocturia, urge incontinence, cyclical heamaturia, in addition, to dysmenorrhea and dyspareunia. Urodynamics confirmed systolic detrusor overactivity. An MRI demonstrated significant endometriosis involving the posterior wall of the bladder with disease extending to bladder base reaching the level of the urethra. No evidence of obstruction was seen. Cystoscopy revealed florid endometriosis confined to the bladder trigone in close proximity to the ureteric orifices with no urethral involvement.

A multi disciplinary team approach was adopted with urological input. Bilateral ureteric stents were sited under cystoscopic guidance. Laparoscopic transvesical excision of a 4 cm bladder nodule was performed with the nodule carefully dissected free from the trigone with sharp and blunt dissection. At 9 month follow up the patient's bladder symptoms had significantly improved with minimal residual symptoms.

Conclusions
Endometriosis of the urinary tract is rare(<1%) and more commonly effects the bladder in 85% of cases. Surgical treatment can often be challenging, specifically with lesions involving the trigone. In such cases with disease extending to the ureteric orifices, ureteric re-implantation may be indicated.

We demonstrate a novel method using a laparoscopic transvesical approach. This technique has been developed in conjunction with the urologists to treat a variety of gynaecological problems such as excision of mesh erosion and repair of vesico-vaginal fistulas. The transvesical approach facilitates excision of complex endometriotic nodules, successfully improving patient outcome and potentially avoiding the need for ureteric re-implantation.

The transvesical approach provides a safe effective and minimally invasive technique for the management of complex bladder nodules and should be considered in select cases.

http://player.vimeo.com/video/170681682?autoplay=1

ES25-0295
Video Session 1 - Endometriosis I Hysteroscopic Surgery

Laparoscopic management of diaphragmatic endometriosis: Triple approach

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Background
The video demonstrates our surgical approach in the management of diaphragmatic endometriosis. We employ the laparoscopic approach in women who present with small black-pigmented diaphragmatic lesions, with or without infiltration of the diaphragm.

In larger deep infiltrating implants we deploy a robotic-assisted laparoscopic route, whereas in lesions involving the central tendon of the diaphragm a robotic-assisted thoracoscopy is preferred to avoid phrenic nerve injury.

Methods
In the majority of them lesions are multiple and measure less than 20mm in diameter, and are thus treated by ablation using plasma energy.

In order to achieve this, we exclusively use plasma energy in our practice, which has a major property that allows a high control of tissue destruction with minimal thermal diffusion in depth, therefore avoiding unintentional diaphragmatic perforation.

In the presence of full-thickness diaphragm infiltration, the ablation is continued up to the pleural cavity, and the intentional diaphragmatic defect can then be sutured.

In larger infiltrating lesions of the diaphragm, the robotic-assisted laparoscopic approach is utilized. The diaphragm is resected using a Maryland bipolar forceps. The diaphragmatic defect is then repaired with a permanent running suture, usually easy to perform with robotic assistance.

When large endometriosis lesions infiltrate the centrol tendon of the diaphragm, care should be taken not to injure the phrenic nerve, which cannot be identified by laparoscopy.

In such cases, robotic assisted-thoracoscopy is preferred through which the phrenic nerve can be identified and preserved. The procedure is performed by a multidisciplinary team including a gynecologist and a thoracic surgeon.

Results
By combining resection and ablation techniques, we offer a surgical strategy which is as conservative as possible, with an aim to limit postoperative adhesions between the liver and the diaphragm, and avoid diaphragmatic paralysis.

Conclusions
Through this video we present an overview of the various possible surgical approaches we deploy in patients with diaphragmatic endometriosis. Keeping with our conservative surgical philosophy, our aim is to provide an optimal balance between postoperative benefits and intra-operative risks.

http://player.vimeo.com/video/170442015?autoplay=1

ES25-0220
Video Session 1 - Endometriosis I Hysteroscopic Surgery

Laparoscopic radical trachelectomy for posterior DIE (deep infiltrating endometriosis) involving sacral nerve roots

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Background
DIE (deep infiltrating endometriosis) lesions involving somatic nerves are relatively rare, as compared to those invading autonomic nerves (hypogastric nerve, splanchnic nerve, or inferior hypogastric plexus) alongside the uterosacral ligament (USL). Here we presented a rare case with posterior DIE lesions infiltrating the whole uterosacral ligament all the way deep to pre-sacral region, involving sacral nerve roots, causing severe periodic pelvic and anal pain.

Methods
44 y/o female, G2P2, received abdominal subtotal hysterectomy (laparotomy) for diffuse adenomyosis 1+ years ago. She had the problems of persistent periodic pelvic pain and anal discomfort. PV revealed tender indurated mass over posterior fornix, retrocervix, Lt USL, deep to pre-sacral area. Transvaginal sonography confirmed the diagnosis of Lt pararectal & USL DIE tumors.Laparoscopic surgery was proceeded.

Results
After careful adhesiolysis, bilateral retroperitoneal spaces were opened to expose the ureters and uterine vessels. Bilateral peri-rectal spaces were opened first, and then the obliterated rectovaginal space was opened, isolating the USL DIE lesions. Almost the entire Lt USL, the pelvic plexus (inferior hypogastric plexus) were infiltrated by the DIE lesions. Sacral nerve roots (S2, S3) were also partially involved. After careful neurolysis, part of hypogastric nerve fibers, pelvic splanchnic nerve fibers, and pelvic plexus fibers were sacrificed, and the entire DIE lesions over Lt USL could be excised in en-bloc fashion. The main trunks of Lt sacral nerve roots (including S2, S3, S4) were well exposed and preserved. Radical trachelectomy was then proceeded. The entire surgery took 4 hr 45 min, with blood loss 300cc. The post-operative course was smooth. She could void well on post-Op day 6. Constipation and perineal numbness sensation persist for 4+ months, gradually improved, and she was doing well thereafter.

Conclusions
LSC radical excision for posterior DIE lesions involving sacral nerve roots is feasible. With good anatomy knowledge and fluent skills, the neurolysis procedure should be safe with acceptable complications.

http://player.vimeo.com/video/169370735?autoplay=1

ES25-0091
Video Session 1 - Endometriosis I Hysteroscopic Surgery

A surgical case of severe endometriosis involving a bladder endometriotic nodule

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Background
Endometriosis is usually seen in females between the ages of 30-40 years and may occur due to fluctuating levels of oestrogen and progesterone. Clinically the patient may be asymptomatic or show symptoms of dysmenorrhea, irregular or heavy periods, pain in the pelvic area, lower abdomen or in the back. It has been suggested that ultrasonography should be done either before or during menstruation as the lesion becomes more evident and a biopsy taken during this period is a strong aid in reaching a final diagnosis.

Methods
This patient has a 1.7cm endometriotic nodule which invades part of the bladder. Our video is made of the surgery involving a combined laparoscopic and cystoscopy to excise the endometriotic nodule together with partial bladder repair. The surgery was carried out by one gynaecological laparoscopic surgeon and a urologist. Before the surgery, the patient accepted cystoscopy and we confirmed the position of the mass and the ureteral openings. To prevent the injury of the ureter during operation, we have accessed retrograde ureteral catheterization. We separated the bilateral ureter to the position of the ureterovesical orifice and resected the posterior wall of urinary bladder mass by blunt and sharp dissection. The scissors was used to do the sharp dissection to avoid thermal damage to the serous layer of bladder by ultrasonic scalpel. Finally, we resected the mass, sutured bladder muscle layer and confirmed the integrity mucosa of the bladder by cystoscopy.

Results
This video is a good demonstration of the multidisciplinary approach that is required for such a complex case. The surgery itself is technically difficult as the nodule is densely adherent to both bladder and uterus. The intraoperative blood was 50ml and the time of first exsufflation was 15h. The hospitalization time after surgery was 14days and the catheter was removed. She has been completely relieved from the symptoms of frequent urination after surgery and dysmenorrheal in the next menstrual period.

Conclusions
Though on its own endometriosis is not a rare lesion, the involvement of the urinary tract is rare but with the bladder being the most commonly affected organ. Surgery often involves a multidisciplinary approach and the surgery itself is technically challenging. This video is a good example of such a case.

http://player.vimeo.com/video/166372427?autoplay=1

ES25-0217
Video Session 1 - Endometriosis I Hysteroscopic Surgery

Endometriosis of the sciatic nerve - a rare and challenging occurrence

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Background

This video presents a rare and challenging location of deep infiltrating endometriosis. Despite the use of advanced imaging techniques (MRI), lesions involving sciatic nerves may remain unconfirmed until surgery – a true diagnostic and therapeutic challenge.

Methods

The patient presented with increasing pain of the left buttock, lasting up to 10 days after periods, with a 10/10 severity. The patient underwent orthopaedic and neurological investigations that remained inconclusive, and diagnostic laparoscopy in 2011 – with no apparent pathology. Complaints were alleviated by continuous use of oral contraceptives. Any discontinuation, even as short as 7 days, yielded severe pain. At physical examination, a solid and painful lesion was palpable with difficulty in the left para-rectal space. MRI revealed “a haemorrhagic lesion of 35x15x20 mm in the middle section of the left internal obturator muscle, surrounded by fibrous tissue, consistent with a post-traumatic lesion”. Surgery was planned.

Results

Surgery setting included a 3D Einstein 2 laparoscope, Storz® instruments, Erbe Vio 300D electrosurgical unit with BiSect®. Initially, no apparent lesion was evidenced in the area. Upon opening of the left iliac and obturator fossae, we came across a large lesion above the left sciatic nerve and S3 root, consistent with imaging findings, that has been gradually excised, later confirmed as endometriosis. Excision was judged complete. The postoperative course and follow-up were uneventful (one year follow-up as of now).

Conclusions

Endometriosis is a polymorphic disease with a frequently unexpected course. The symptoms were suggestive of hip joint or lower spine pathology, therefore diagnostics were conducted in this direction. Despite inconclusive findings, the patient was first offered hip joint surgery that she refused, only then turning to gynaecologists. Meticulous interview and physical examination indicated endometriosis, confirmed post-operatively. Although a rare occurrence, symptoms suggestive of spinal or orthopaedic pathology should also be investigated for possible endometriosis involvement.

http://player.vimeo.com/video/169358705?autoplay=1

ES25-0460
Video Session 1 - Endometriosis I Hysteroscopic Surgery

Bilateral hydronephrosis due to DIE

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Background

We can find endometriotic lesions affecting the urinary tract in 1 to 2 percent of women with endometriosis. Ureteral endometriosis presents with colicky flank pain in approximately 25 percent of patients and gross hematuria in 15 percent, while up to 50 percent of patients are asymptomatic. Due to the lack of symptoms in many women, the diagnosis of this condition is often delayed. As a consequence, ureteral endometriosis can lead to silent loss of renal function

We describe a case of deep infiltrating endometriosis affecting both ureters and show the surgical management as well as describe long term pregnancy outcomes.

Methods

The patient was 31 years old. Nulliparous. Chron's disease. She had dysmenorrhea, ocasional dyspareunia and she didn't have dyschezia.

She was diagnosed with left hydronephrosis after an abdominal TC scan was performed because of an outbreak of her Chron's disease. MRI showed a nodule next to the left adnexa that compressed the left ureter, a nodule of 50x25x24 mm between both uterosacral ligaments (USL) that involved the left ureter, which was sticked to the anterior rectum wall, also a kissing ovaries. The rectoscopy showed a 7 mm nodule involving the muscularis of the rectum, 10 cm from the anus. The intravenous urography was informed as a left hydronephrosis with a good kidney functionality.
On the gynaecological examination we could palpate an irregular nodule of 2-3 cm between both USL, the pouch of Douglas was fibrotic with a nodule of 4 cm. The rectal examination was normal.

We performed a laparoscopic complete excision of endometriosis with left salpinguectomy and bilateral ureteral reimplantation.

Results

Findings confirmed previous study but additionally right ureter was involved (as well as the left one) in a nodule of deep endometriosis of the rectovaginal septum, at the level of uterine arteries crossing.

The nodule was resected and implant of both ureters was performed by an urologist. Four months after the surgery the patient got pregnant. A cesarean section was performed due to failure to progress during labor. Five months later after the c-section an intrauterine device (Mirena ®) was placed.

Conclusions

We describe and show a case of deep endometriosis with bilateral ureteral compromise that was succesfully managed and who eventually got pregnant and delivered a newborn by cesarean section.

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ES25-0297
Video Session 1 - Endometriosis I Hysteroscopic Surgery

Conservative rectal surgery in multifocal colorectal endometriosis instead of low large colorectal resection

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Background
Global practice by the majority of surgeons includes the performance of colorectal resection for multiple endometriosis nodules. We report 2 interventions demonstrating the practice of a more conservative approach.

Methods
The video demonstrates a conservative approach in 2 young ladies who presented with deep infiltrating endometriosis responsible for multiple severe colorectal infiltrations. A large disc excision using the Contour Transanal Stapler was performed on the first low rectal nodule. A short segmental resection of the sigmoid colon was realized. The second woman underwent a disc excision using an end to end anastomosis stapler and a short segmental resection of the sigmoid colon.

Results
The immediate postoperative results are uneventful.

Conclusions
This conservative approach avoids unfavorable functional outcomes which could be the result of an aggressive surgery which might have included a long low colorectal resection.

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ES25-0342
Video Session 1 - Endometriosis I Hysteroscopic Surgery

Primary hysteroscopic resection of miscarriage product : a pilot series compared with a group treated with classical dilatation and curettage

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Background
First description to our knowledge of the hysteroscopic management of a miscarriage (HsR), without previous medical treatement or classical dilation and curettage (D/C). Feasability, security, uterine cavity consequences and influence on the reproductive outcomes were reviewed

Methods
retrospective cohort study, after acceptance by the local ethical commitee. The exploratory groupe (HsR) performed in the gynecology and andrology unit of the clinique unversitaire St-Luc was compared to a group with a classical management (D/C) that was performed in the obstetric service of the same hospital during the same period of time (January 2010 to Decembre 2014).

Results
183 patients underwent HsR and 170 patients D/C for unexpulsed miscarriage. In the classical group, the majority of patients underwent first medical treatement with misoprostol, and in case of persistence of the intra uterine bag, a D/C was planned. In the HsR group, only expectation was planned before the procedure. Complications rate in both groups were very low (< 1%). Population was equivalent except that there were more patients from In Vitro Feconation (IVF) in the HsR group (109 vs 6 ; p<0,001) and the median term was earlier in the HsR group (9week vs 10 week - p<0,001). There was less intra-uterine adhesions (IUA) after HsR (1,08% vs 2,32% in D/C- NS) but a very low proportion of patient was evaluated after the procedure. Cases with occurence of IUA after Hsr were complicated cases already treated previously for IUA. Median follow up as equivalent for both groups (12 months). The complet cohort showed a higher rate of pregnancy after HsR vs D/C (75% vs 58% - p<0,05) but after exclusion of patient who were not attempting to become pregnant and were lost in follow up, this difference disapeared. In a multivariate analysis adjusted to the IVF variable on the early period for wich we have a larger follow up, we showed a significant difference in the early pregnancy rate between the two groups, in favor of HsR (p=0,026).

Conclusions
Hysteroscopic evacuation for early miscarriage appears safe, efficient and showed good results regarding future fertility with low rate of IUA and good rate of pregnangcies, especially in fragile patients from IVF.

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ES25-0031
Video Session 1 - Endometriosis I Hysteroscopic Surgery

Intraoperative vasopressin injection during hysteroscopic myomectomy

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Background
Hysteroscopic myomectomy is the ideal procedure for patients with symptomatic submucosal fibroids. It is safe, cost effective, and has high patient satisfaction. However, it is an operative challenge to maintain adequate visualization and achieve complete resection while avoiding complications including bleeding.

The objective of this video is to review techniques to help troubleshoot difficult hysteroscopic myoma resections. We demonstrate the use of the flow-by technique to clear the operative field and intraoperative hysteroscopic vasopressin injection to secure hemostasis at the time of myomectomy.

Methods
The procedure is completed at Regina General Hospital (Canada). We use a 6.25 mm outersheath, 0 degree operative hysteroscope and a hysteroscopic tissue removal device. Normal saline is the distension medium. Dilute vasopressin is injected for hemostasis using 4-5mL of a solution of 20 units in 50mL of normal saline.

Results
The case is that of a 40 year-old women with heavy, irregular menstrual bleeding and a 3-4cm submucosal fibroid on transvaginal ultrasound. We perform hysteroscopy and find a large pedunculated fibroid taking up close to the entirety of the uterine cavity and a smaller, posterior wall fibroid. We are able to successfully resect the fibroids and restore a normal uterine cavity using a hysteroscopic tissue removal device.

Conclusions
We use a flow-by technique to clear the operative field and intraoperative injection of vasopressin to secure hemostasis.

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ES25-0249
Video Session 1 - Endometriosis I Hysteroscopic Surgery

Hysteroscopic fertility-sparing treatment of endometrial stromal sarcoma in a young patient

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Background
To describe a successful case of an early stage uterine adenosarcoma treated with hysteroscopic resection combining adjuvant treatment in patient with desire of child-bearing.

Methods
A nulliparous 23 year-old woman referred to our center complaining of heavy menstrual bleeding, accompanied by cramping pelvic pain since 6 months. The transvaginal ultrassonography and hysteroscopy were highly suggestive of a 4 cm benign-looking leiomyoma. The patient was scheduled for resectoscopic myomectomy.

Results
During surgical procedure, an irregular micropolypoid and highly vascularized area was detected in the core of the leiomyoma. The surgical procedure was concluded when the entire lesion was resected. The cleavage plane of the lesion was easily identified and the resection was conducted without damage to the surrounding healthy myometrium and endometrium. Histological analysis showed an adenosarcoma without sarcomatous overgrowth. A pelvic Magnetic Resonance Imaging (MRI) and a total body Positron Emission Tomography ruled out infiltration and metastasis. Due to the desire of child-bearing, the patient opted for conservative treatment, combining oral progestin (megestrol acetate) to the hysteroscopic resection. She is under medical treatment for 9 months and follow-up hysteroscopies at 3 and 6 months and transvaginal sonography and MRI have shown no recurrence of pathology.

Conclusions
Uterine adenosarcomas are biphasic lesions composed of a malignant mesenchymal component and an epithelial component. They are generally low-grade and have a favourable prognosis, but may display sarcomatous overgrowth, which is associated with a worse outcome. Given the non-specificity late onset of symptoms, an early diagnosis of adenosarcoma is challenging. Because of the rarity of uterine adenosarcoma, limited data are available to guide therapy. In selected cases of adenosarcoma with a local uterus mass without sarcomatous overgrowth and no signs of metastasis and infiltration, a combined minimally-invasive approach and adjuvant treatment, may offer the possibility of a less aggressive and fertility-sparing treatment.

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ES25-0098
Video Session 2 - Laparoscopic Surgery

Standardized retroperitoneal dissection of the proximal uterine artery and the ureter in difficult cases of laparoscopic surgery

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Background
To find a more secure approach to the adnexa and the uterus in difficult cases of laparoscopic surgery to avoid hemorrhage and organ damage. In literature ureteral injuries were identified with incidence rates ranging from 0.025% to 2%, bleeding during dissection was reported with incidence rates ranging from 0,3% to 1%.

Methods
We demonstrate in this video our standardized procedure for retroperitoneal dissection of the ureter and the proximal uterine artery in difficult cases of laparoscopic surgery in the pelvis, caused f. ex. by large fibroids, extensive adhesions, deep infiltrating endometriosis or large adnexal masses. After opening the retroperitoneal space at the pelvic brim the ureter gets identified on the level of the iliacal vessels. Further dissection of the ureter until the uterine artery is crossing over. Now preparation of the external iliacal vessels and the internal iliacal vessels until the origin of the uterine artery. In case of TLH we start the procedure with sealing of the proximal uterine artery on both sides. In other surgical procedures it is possible in case of hemorrhage to seal the uterine artery easily on one side and in serious situations the internal artery as well.

Results
We incased 14 laparoscopies with this standardized procedure of totally 164 laparoscopies in our department from November 2015 until April 2016. No hemorrhage > 1.000 ml and no ureter damage was reported.

Conclusions
In cases with large fibroids or large adnexal masses, extensive adhesions or deep infiltrating endometriosis the anatomical position of the ureter is often displaced. Retroperitoneal dissection of the ureter reduces the risk for ureter damage considerably. The retroperitoneal dissection and the possibility of sealing of the proximal uterine artery or the internal iliacal artery offers an effective treatment of hemorrhage.

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ES25-0115
Video Session 2 - Laparoscopic Surgery

Size matters: Approach to laparoscopic hysterectomy in the obese patient with a large uterus

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Background
Obesity is a growing problem in the United States and worldwide and has direct implications for gynecologic surgical patients.

Methods
This video outlines an approach to difficult laparoscopic surgery in the obese female. First, perioperative planning to optimize patient safety and facilitate laparoscopic gynecologic procedures is discussed. Second, intraoperative techniques for hysterectomy in the obese patient with a large uterus is detailed.

Results
Adequate surgical planning and a comprehensive stepwise approach to laparoscopic hysterectomy in obese patients with difficult anatomy is necessary to minimize complications and improve outcomes.

Conclusions
Although surgical risk increases in the obese patient, this can be mitigated with the above techniques and the patient can thereby reap the benefit of a laparoscopic approach.

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ES25-0499
Video Session 2 - Laparoscopic Surgery

Accessory and cavitated uterine masse or cystic adenomyoma

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Background

Acessory and cavitated uterine masse (ACUM) is a rare Müllerian anomaly generally diagnosed in young patients with severe dysmenorrhea. On histological examination it corresponds to a cystic cavity mass,lined by endometrial glands and stroma.

Adenomyosis is the presence of endometrial tissue within the endometrium. It can be diffuse or localized depending on the extension of myometrial invasion.An adenomyoma is a result of a down-growth and invagination of the endometrial basalis into the adjacent myometrium after disruption of the normally intact boundary between them.

Focal adenomyosis is defined as a restricted area with hypertrophic and distorted endometrium and myometrium usually embedded within the endometrium. It can be subdivided into adenomyoma and cystic adenomyosis- a single adenomyotic cyst within myometrium.

The broad differential diagnosis between adenomyoma with ACUM makes it a challenge.

There is often an association with ACUM and endometriosis. Its co-incidence is 5-6% in adolescents. Differential diagnose with endometriosis is most of cases difficult due to the similarity of symptoms refractory to medication including oral contraception.

ACUM and adenomyomas can be treated with laparoscopic tumorectomy.

Methods

Raise awareness of the importance of laparoscopy in the treatment of cystic adenomyomas and (ACUM) that represents a challenge in differential diagnose for both surgeon and pathologist

Results

We reported a case of a 40-year-old patient, with primary infertility that was referred to consultation due to increasing left flank pain after IVF cycle. We explain step-by-step laparoscopic tumorectomy using videos.

Conclusions

Laparoscopy procedure confirmed a singular mass attached to the left side of the uterus and left round ligament and tumorectomy is the gold standard approach.It is clear that this is a challenge in differential diagnose between ACUM and cyst adenomyomas

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ES25-0054
Video Session 2 - Laparoscopic Surgery

Case report: A remarkable cesarean scar niche caused by amniotic membrane

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Background

Due to a fetal breech presentation with a posterior placenta a planned Cesarean section was performed on a 21-year-old nullipara woman.

Four months after the Cesarean section she came for a follow-up visit with no complaints about her physical health. She had already had two normal menstruations. However, by ultrasound a retroverted uterus with a remarkable Cesarean scar niche defect (2,5 x 3,1 x 1,3 cm) was identified. The defect was filled with a variable echogenic mass, with no blood supply, and myometrium in that area was missing.

Methods

Five months after the Cesarean section we performed laparoscopy. During laparoscopy the Cesarean scar area was prominent and after incision of the vesicouterine fold a yellowish white tissue was visualized. We made an incision on the scar and opened the uterine cavity. The visually fibrotic tissue was removed step-by-step by dissecting and pulling. We obtained 2 pieces of histologically necrotic connective tissue up to 7 cm in size. The edges of the 4-cm scar were refreshed and sutured. Blood loss 20ml.

Results

Two months after the laparoscopy the patient had well recovered. She had normal menstruations. The Cesarean scar, investigated by ultrasound, was almost invisible.

Conclusions

We believe that during Cesarean section a layer of amniotic membrane on the anterior wall of the uterus was not detected, left in, and sutured together when closing the uterine wound resulting in a not properly healed wound and a remarkable scar niche. The laparoscopy was performed to avoid infection and future uterine scar dehiscence and rupture.

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ES25-0094
Video Session 2 - Laparoscopic Surgery

Cesarean scar pregnancy treatment: hysterectomy, excision

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Background

Cesarean scar (ectopic) pregnancies (CSP) are rare but may have serious clinical manifestations due to massive hemorrhage. In this context the formation of arterio-venous malformations between the uterine arteries and myometrial venous plexus after initial treatment of the CSP is feared. Doppler and 3D sonography and (Angio-)MRI are helpful in detecting such malformations and diagnosis is verified by histologic findings of trophoblast and atypically dilated vessels in the excised scar tissue.

Management is controversial and guidelines are lacking. Systemic MTX and monitoring therapeutic success by serially determining HCG are favored. Hysterectomy is beneficial in patients who desire no further pregnancies. Embolization of the a.-v. malformations is an option, but the wide diameter of the vessels might lead to pulmonary embolism by the embolization agent. This video shows two patients with complete excision of CSP in rendez-vous technique after temporary clipping of the uterine arteries and laparoscopic hysterectomy, respectively.

Methods

Case 1: The patient had two previous cesarean sections before a vital CSP was determined sonographically in the 13 6/7 week of gestation. Fetocide was carried out with potassium chloride and MTX was applied subsequently i.m.
Case 2: The patient had one previous cesarean section and was diagnosed with an avital CSP. Nevertheless, she had an outwards curettage with massive hemorrhage.

Results

Case 1: HCG normalized after 124 days. 15 days after that the patient presented with vaginal bleeding. Sonography and MRI showed a highly vascularized 8 cm mass in the anterior uterine wall. Embolisation had to be abandoned because of systemic side effects. After this course of events and given the risk of hemorrhage the patient desired hysterectomy, which was uneventful.
Case 2: After 10 weeks she was referred because of retained products of conception and vaginal bleeding. Sonography and MRI revealed a highly vascularized 6 cm mass in the right anterior uterine wall. HCG was undetectable. The tumor was excised laparoscopically in rendez-vous technique after temporary clipping of the uterine arteries.

Conclusions

After CSP management it is important to keep in mind the formation of arterio-venous malformations with their inherent risk of major hemorrhage. Thus, normalization of HCG does not guarantee success of CSP therapy.

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ES25-0097
Video Session 2 - Laparoscopic Surgery

Does standardized procedure for laparoscopic hysterectomy reduce complication rates?

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Background
In our department total laparoscopic hysterectomy(TLH) is the standard hysterectomy method and we have implemented a standardized procedure for TLH with the intention of safe surgery with few complications and quick recovery.

Methods
Our standardized method contains 11 steps: 1. Standardized position of the patient. 2. Placement of the uterine manipulator. 3. Camera entry and three additional trocars. 4. Restore the normal anatomy. Further dissection completely on the left side: 5. Transection of the round ligament. 6. Mobilize the bladder. 7. Dissection of the adnexa. 8. Seal and cut the uterine vessels. 9. Separate the uterus from the vaginal apex. Then dissection on the right side and 10. Removal of the specimen. 11. Suture of the vagina.

For 2015 we have compared complication rates from our department with the results from the Norwegian population with data from the national Norwegian Gynecological Endoscopy Registry.

Results
91 patients were included from our department while nationwide there were 464 patients registered. The intraoperative complication rate in our department was 0% versus 3,0% nationwide. Our total postoperative complication rate was 18,7% versus 19,0% nationwide in which infection represents the main group with 15,4% versus 15,7%. Our department has a higher rate of wound infection compared to the nationwide results, but less intraabdominal infections and urinary tract infections.

When divided into less serious, moderate and serious complications, our less serious complication rate was 14,3% versus 11,4% nationwide, but our moderate complication rate was 3,3% versus 5,6% nationwide and our serious complication rate was 1,1% versus 1,9% nationwide.

Conclusions
Standardized procedure for TLH leads to safer surgery and low complication rate mainly reducing moderate and serious complications compared to the nationwide rates.

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ES25-0079
Video Session 2 - Laparoscopic Surgery

Laparoscopy for radical hysterectomy for advanced cervical cancer after radiochemotherapy

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Background
The objective of this video is to demonstrate a technique of radical hysterectomy after radiochemotherapy for advanced cervical cancer in a 49-year-old woman.

Methods
Stepwise explanation of the technique using videos and pictures (educational video)

This video presents the case of a 49-year-old woman who had no gynecological follow-up. She was diagnosed with a low differentiated squamous cell carcinoma of the cervix, stage IIB N+.

First, she had a lumbo-aortic staging, with one out of 25 lymph nodes, which was invaded. A radiochemotherapy was then performed. The reevaluation MRI showed the persistence of a 4cm tumor extending to the vagina and right parameter.

The surgery starts with the dissection of the left and the right pararectal fossa. We then proceed to the dissection of the rectovaginal septum, where an opening of the cystic part of the tumor occurs. Once the dissection of the rectovaginal septum has been completed, we proceed to the hysterectomy with adnexectomy, first on the left side, then on the right side. In this part of the video, the different parauterine spaces and structures are shown very clearly. The bladder is then dissected anteriorly. Our attention is turned to the right ureterolysis, with the ureter very closely adherent to the tumor. Finally, the uterus is extracted through the vagina after colpotomy.

Institutional review board approval was obtained through our local ethics committee in Strasbourg University Hospitals.

Results
Radical laparoscopic hysterectomy with bilateral adnexectomy and vaginal extraction of the uterus

Conclusions
This case demonstrates that a laparoscopic radical hysterectomy after radiochemotherapy is feasible and safe in selected cases, with good results in terms of oncological resection.

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ES25-0070
Video Session 2 - Laparoscopic Surgery

Robotic partial cystectomy for deeply infiltrating endometriosis of the bladder wall

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Background
We demonstrate techniques for safely resecting a deeply infiltrating endometriotic nodule invading the full thickness of the bladder wall bya robotic assisted laparoscopic approach. The patient is a 29 year old, para 2002, presenting with non-cyclical pelvic pain of one year duration. Her surgical history included two previous cesarean deliveries and a diagnostic laparoscopy which confirmed the presence of endometriosis involving the anterior cul-del-sac and uterosacral ligaments. On physical examination, there was a 4x4 cm palpable painful mass in the wall of the posterior wall bladder. Cystoscopy confirmed a mass in the posterior bladder mucosa consistent with an infiltrative bladder wall endometriosis.

Methods
Pre-procedure, bilateral ureteral catheters were placed under cystoscopy guidance. The patient had a robotic assisted partial cystectomy and excision of all endometriotic lesions. In order to complete the procedure, complete mobilization of the bladder from the lower uterine segment and cervix was necessary. The nodule was circumferential excised en-bloc. The defect was closed in two layers to form a water tight seal.

Results
Pathology confirmed DIE involving the full thickness of the bladder wall. The patient was discharged on post-operative day one with a Foley catheter in place for one week. Cystogram done two weeks post-operatively showed complete healing of the bladder wall. The patient did well and was pain free at six weeks and three months of follow-up.

Conclusions
We demonstrate a safe minimally invasive technique for partial cystectomy in a patient with full thickness bladder endometriosis. Important safety considerations include pre-procedure cystectomy and placement of ureteral catheters, mobilization of the bladder away from the cervix and lower uterine segment, and continuous visualization of ureteral orifices during dissection.

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ES25-0022
Video Session 2 - Laparoscopic Surgery

A rare case of inferior vena cava variation

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Background
To introduce a rare case of inferior vena cava variation in the para-aortic lymphadenectomy.

Methods
This is a 60 years old patient with ovarian clear cell carcinoma, stage IIa. Laparoscopic hysterectomy with bilateral salpingo-oophoerctomy, omentum resection, pelvic and para-aortic lymphadenectomy were performed.

Results
A rare inferior vena cava variation was detected in the procedure of para-aortic lymphadenectomy. The operating time of para-aortic lymphadenectomy was 50 minutes. The estimated blood loss of the total surgery was 100mL. There were no conversions or perioperative and postoperative complications. The number of para-aortic lymph nodes was 12. The number of pelvic lymph nodes was 22.

Conclusions
Extreme caution should be taken to prevent the injury of inferior vena cava in the para-aortic lymphadenectomy.

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ES25-0077
Video Session 2 - Laparoscopic Surgery

Total laparoscopic hysterectomy with bila bilateral adnexectomy using a ligasure maryland jaw instrument

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Background
In this video, we want to demonstrate a total laparoscopic hysterectomy with bilateral adnexectomy using a LigaSure™ Maryland device.

Methods
This case demonstrates the use of the Ligasure Maryland™ Jaw instrument in performing a total laparoscopic hysterectomy and bilateral salpingo-oophorectomy for uterine fibroids. The purpose of this didactic video is to explain the "step by step" technique of this very common gynecological procedure, namely a hysterectomy.
We start by placing the patient. We use the direct entry technique with an optical trocar. To clean the optical device later on, we use the Clearify™ Visualization System.5. As always, we try to identify the anatomical landmarks such as the ureterWe start the laparoscopic hysterectomy by coagulating and cutting the left round ligament. We then move on towards the anterior leaflet of the broad ligament up to the vesicouterine space. You can observe the dissection ability of this Maryland instrument. The vessels are quite well skeletonized. The peritoneum is separated towards the vesicouterine fold. We then perform fenestration of the broad ligament. In this case, because we want to remove the ovaries, we make a fenestration parallel to the infundibulopelvic ligament. Coagulation and division of left infundibulopelvic ligament. The assistant grasps the tubes and then with the bipolar LigaSure™ Maryland, we coagulate and cut the infundibulopelvic ligament or ovarian suspensory ligament. It also reveals the opening of the posterior leaflet of the broad ligament to the cervix and the uterosacral ligament, in order to isolate the uterine vascular pedicle also from a posterior approach. We then move to the right side, again coagulation and division of the right round ligament. As you can see with this device, there is almost no thermal spread and it causes the fusion of the tissues. You open the broad ligament, and on this side we do exactly the same as we did on the left site – we open the anterior leaflet of the broad ligament up to the vesicouterine space. After performing a broad ligament fenestration parallel to the IP ligament, we now coagulate and cut the right infundibulopelvic ligament. We then open the vesicovaginal space. We coagulate and divide the uterine pedicles. As you can see very clearly, we coagulate and cut the uterine artery. We use a Clermont-Ferrand uterine manipulator. We then come out with the scope and we use the Clearify™ Visualization System to clean the picture. After the vagina has been totally opened, we remove the specimen through the vagina. Using an intracorporeal suture, we close the vagina laparoscopically.

Results
The amount of blood loss collected was inferior to 50mL.

Conclusions
This new multifunctional instrument is very efficient and versatile. It may offer better precision and more safety (less thermal damage) to surgeons.

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ES25-0455
Video Session 3 - Laparoscopic Surgery

Combined laparoscopic and hysteroscopic management of isthmocele

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Background
An isthmocele is a reservoir-like pouch defect on the anterior wall of the uterine isthmus, located at the site of the previous cesarean scar, which could be related to symptoms like postmenstrual spotting, secondary infertility and pelvic pain. It also seems to represent a potential risk factor for dehiscence of the uterine scar during pregnancy. The literature most commonly describes hysteroscopic resection or laparoscopic repair of the isthmocele.

Methods
Endovaginal sonographic examination of a symptomatic 32-year-old woman, G1P1, revealed an isthmocele (28 × 11 mm) and a thickness of the myometrium over the defect of 1.5 mm.

During the surgical correction, a diagnostic hysteroscopy was performed, inserting the limit of the instrument inside the niche, which was therefore transilluminated. The laparoscopic repair of the uterine defect started with the careful dissection of the bladder from the lower uterine segment. The hysteroscopic biopsy forceps allowed to localize the weakest part of the isthmocele, so that, using bipolar scissors, laparoscopic incision and complete removal of the pouch were performed. Three separate Vicryl 0 sutures were placed to reappoximate the edges (single-layer).

Results
Post-operative ultrasound examination showed a residual defect of 3 mm (confirmed by office hysteroscopy), with a restored myometrial thickness of 9,7 mm. After 7 months follow-up, patient was still free of symptoms.

Conclusions
The laparoscopic correction of isthmocele contributes to symptoms relief and reduction of the risk of uterine rupture, by eliminating the pouch and reinforcing the myometrial wall concomitantly. In this surgical technique, hysteroscopy allows to determine the exact location and extent of the isthmocele and so, to perform a precise excision of only fibrotic (pathologic) tissue.

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ES25-0339
Video Session 3 - Laparoscopic Surgery

Laparoscopic en-block removal of advanced interstitial pregnancy

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Background

Interstitial (or "cornual") ectopic pregnancies comprise only 2 percent of all ectopic pregnancies, however, the mobility and mortality are disproportionately high. Up to 50% present with uterine rupture, and the mortality rate is upwards of two percent. With increasing use of first trimester ultrasound, these are often detected early.

Methods

This video reviews the rare case of a 13 week gestation unruptured interstitial ectopic pregnancy. Careful surgical management was planned to facilitate a minimally invasive approach. The first objective of this video is to review surgical techniques for hemostasis and tissue plane dissection in the advanced interstitial pregnancy. The second objective is to demonstrate a novel technique of excising the interstitial pregnancy en-block, using surgical techniques such as the "myometrial handle".

Results

The pregnancy was laparoscopically removed with a technique similar to laparoscopic myomectomy. Creation of a "myometrial handle" facilitated manipulation and dissection of the large gestational sac without rupture. Intra-operative blood loss was minimal, and the patient's post-operative course was uncomplicated.

Conclusions

Respecting tissue planes and using multiple modalities for hemostasis such as dilute vasopressin, tranexamic acid, and vessel-sealing devices can minimize blood loss at laparoscopic ectopic surgery. Careful pre-operative planning and meticulous surgical technique are central to managing advanced gestation interstitial pregnancies in a minimally invasive fashion.

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ES25-0383
Video Session 3 - Laparoscopic Surgery

Laparoscopic myomectomy: enucleation technical issues after ulipristal acetate treatment

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Background
The aim of this video is to demonstrate the technical difficulties related to the laparoscopic enucleation of myomas, especially after uliprisatal acetate treatment.

Methods
Presentation of four laparoscopic myomectomies with different prior treatments in order to illustrate the difficulties associated with each treatment.
First, a myomectomy without prior treatment: A longitudinal hysterotomy is performed in order to facilitate suturing. The myometrium is incised using monopolar current in section mode until the pseudocapsule of the myoma has been reached. Once the cleavage plane has been found, the corkscrew can be used in combination with divergent forceps traction in order to progressively enucleate the myoma. The vascular pedicle of the myoma can be coagulated with the bipolar forceps. Usually, this enucleation is quite easy to perform.
Secondarily, we present a myomectomy of myoma bionecrosis after prior clipping of uterine arteries: The enucleation seems more difficult since the cleavage plane is difficult to find. There are more adhesions and the pseudocapsule of the myoma is not so easily identified. The hysterotomy has to be enlarged to provide a better access to the myoma. The instruments are often interchanged in order to facilitate traction and countertraction movements. The Museux forceps and corkscrew instruments are used.
Third, a myomectomy after ulipristal acetate: Once the myometrium has been opened with the monopolar hook, the pseudocapsule of the myoma cannot be identified. The myoma has a very flaccid consistency and is closely adherent to the endometrium and to the serosa.
The myoma is enucleated little by little. However, conventional traction and countertraction movements are not as efficient as usual, and the monopolar hook must also be used for the dissection. The use of the monopolar hook generates a lot of smoke, which impairs visibility. It is mandatory to aspirate the smoke, which reduces the pneumoperitoneum and impairs visibility even more. All this makes myomectomy more difficult. Finally, this myoma will be enucleated in two parts.
Eventually, a laparoconversion for myomectomy after ulipristal acetate treatment: This last case demontrates the failure of a laparoscopic myomectomy, which required a secondary laparoconversion.
Institutional review board approval was obtained through our local ethics committee in Strasbourg University Hospitals.

Results
We had the strong impression that the use of a preoperative ulipristal acetate treatment did not facilitate surgery but made it far more difficult.

Conclusions
In conclusion, the enucleation of the myoma is a key step of laparoscopic myomectomy.
In our experience, it seems that cleavage planes are modified by a preoperative ulipristal acetate treatment, with the subsequent increase of the operative difficulty.
A randomized controlled trial would probably be useful to compare the benefits and potential issues induced by this treatment before laparoscopic myomectomy.

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ES25-0268
Video Session 3 - Laparoscopic Surgery

Adnexal torsion during pregnancy: conservative laparoscopic treatment

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Background

Adnexal torsion is a rare cause of acute abdomen in women, corresponding to 3% of gynecologic emergencies, approximately 15% of which occur during pregnancy. In the reproductive period, it is important to preserve the ovarian function (OF), so the laparoscopic surgery is preferred during the first and second trimester of pregnancy. The incidence in pregnant women ranges from 1/912 to 1/2500 of births, occurring during the first trimester on 81% of the cases. The diagnosis is predominantly clinical; on imaging exams, adnexal mass with or without Doppler changes is detected. To preserve the OF, the detorsion can be accompanied by the puncture of the cysts, with the oophoropexy in recurrence, avoiding adnexectomy. There is no malignancy findings during pregnancy. The procedure is not a risk factor for the obstetric outcomes.

Methods

The case is CSR, 24 years, 15 weeks pregnant, complaining of hypogastric pain for 3 days. She brought a pre-gestational ultrasound showing an adnexal complex mass of 220cc, which increased to 539cc with 8 weeks and 770cc with 14 weeks. She was submitted to laparoscopy surgery in semi-gynecological position with the incision sites in suprapubic and bilateral iliac fossa. The first incision was performed with the open technique. It was performed the detorsion of the cyst, an incision on the edge of the antimesenteric borders for aspiration of the contents and exteriorization of the ovary to make the cystectomy.

Results

Anatomopathological diagnosis was mucinous cystadenoma, and she followed pre natal care without complications.

Conclusions

According to the literature, the recommended treatment was the conservative laparoscopic, with the care to first reduce the ovary size with the puncture of the cysts, and then perform the detorsion to avoid the tissue loss and ovary ischemia. Worth to emphasize is the use of open technique for the first incision, thus avoiding accidental uterine perforation.

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ES25-0412
Video Session 3 - Laparoscopic Surgery

Robot-assisted laparoscopic colpectomy in female-to-male transgender patients; technique and outcomes of a prospective cohort study

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Background
Sex reassignment surgery (SRS) in female-to-male (FtM) transgender patients includes mostly hysterectomy, bilateral salpingo-oophorectomy and mastectomy. Sometimes further SRS is performed, such as phalloplasty. Colpectomy may be performed to overcome gender dysphoria and disturbing vaginal discharge, furthermore it may be important in reducing the risk of fistulas due to the phalloplasty procedure with urethral elongation. Colpectomy prior to the reconstruction of the neourethra seems to reduce fistula rates on the very first anastomosis. Therefore at our center, colpectomy has become a standard procedure prior to phalloplasty and metoidioplasty with urethral elongation. Colpectomy is known as a procedure with potentially serious complications, e.g. extensive bloodloss, vesicovaginal fistula or rectovaginal fistula. Colpectomy performed via the vaginal route can be a challenging procedure due to lack of exposure of the surgical field, as most FtM transgenders are virgins. Therefore we investigated whether robot-assisted laparoscopic hysterectomy with bilateral salpingo-oophorectomy (TLH-BSO) followed by robot-assisted laparoscopic colpectomy (RaLC) is an alternative for the vaginal approach.

Methods
Robot TLH/BSO and RaLC as a single step procedure was performed in 36 FtM patients in a prospective cohort study.

Results
Median length of the procedure was 230 minutes (197 – 278), which reduced in the second half of the patients, median blood loss was 75 mL (30 – 200) and median discharge was 3 days (2 – 3) postoperatively. One patient with a major complication (postoperative bleeding with readmission and transfusion) was reported.

Conclusions
To our knowledge this is the first report of RaLC. Our results show that RaLC combined with robot TLH-BSO is feasible as a single step surgical procedure in FtM transgenders. Future studies are needed to compare this technique to the two-step surgical approach and on its outcome and complication rates of subsequent phalloplasty.

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ES25-0430
Video Session 3 - Laparoscopic Surgery

A unique case of uterine scar defect: Laparoscopic excision and repair

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Background
In the last few decades, the incidence of the cesarean section and thus cesarean related obstetric complications increased, dramatically. Lately, in addition to well known complications, increased attention has been given to women with history of cesarean section and abnormal uterine bleeding not responsive to medical treatment.

Methods
27 years old woman, gravida 2, para 2, presented with post menstruel spotting and pelvic pain who previously had undergone 2 cesarian sections. Transvaginal sonography and magnetic resonance imaging revealed uterine niches with collection of debris at the previous cesarean incision site, bilaterally. Niche dimensions were 4x3x3.2 cm at the right side and 3x2.4x3.1 cm at the left side. In this case hystereoscopically assisted laparoscopic excision and repair of the cesarean scar defect was chosen because of unique characteristics of the uterine defect. At first, uterine cavity was investigated using diagnostic hysteroscopy. Defect was identified and located bilaterally at the superior portion of the endocervical canal (approximately 0,5-1 cm). Subsequently, laparoscopic exploration was performed and the exact location of the uterine niches were found. Posterior to anterior approach for uterine niches and lateral to anterior approach for the creation of bladder flap was used. Considering the close proximity between the bladder and uterine scar defect, an ultrasonically activated scalpel was chosen as energy modality. After the creation of bladder flap, uterine scar defect was identified and excised. Material extracted through the vagina. Uterine repair was performed using 2-0 barbed polypropylene suture. Peroperative diagnostic hysteroscopy confirmed the success of the repair.

Results
Isthmoplasty was successfully achieved. At the follow-up visit, resolution of postmenstrual abnormal uterine bleeding and suprapubic pelvic pain was reported by patient.

Conclusions
Recently there has been growing interest in hysteroscopic resection of the isthmocele, nevertheless treatment options must be individualized and carefully planned to minimize both complications and the requirement for additional treatments.

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ES25-0409
Video Session 3 - Laparoscopic Surgery

Laparoscopic Hysterectomy of a 20 weeks uterus weighting 1 Kg with extensive adhesions

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Background
There is no agreed upper limit of the size and weight of the uterus to do laparoscopic hysterectomy. It is accepted that the most important factor is the mobility. When there is adhesions limiting the mobility of the uterus the procedure becomes much difficult.

Methods
This patient is 41 years old , widow and nullipara, complaining from chronic pelvic pain , dysmenorrhea and menorrhagia due to adenomyosis.The decision was to do subtotal hysterectomy. There were extensive adhesions limiting the mobility of the uterus : colonic , intestinal and omental. All types of dissection : cold sharp dissection by scissors, blunt dissection and thermal (Ligasure) were used to remove the adhesions prior to start the hysterectomy. The hysterectomy was not classic due to the large size of the uterus and large raw area after adheseolysis . Entry was through a supraumbilical port, ancillary trocars were higher than normal.

Results
Using all types of dissection : cold sharp dissection by scissors, blunt dissection and thermal (Ligasure) we were able to remove all the adhesions prior to start the hysterectomy. Although not classic , the hysterectomy was completed and the uterus weighted 1 Kg.

Conclusions
Laparoscopic hysterectomy can be performed in large uteri even in the presence of extensive adhesions

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ES25-0402
Video Session 3 - Laparoscopic Surgery

Laparoscopic management of presumed benign giant ovarian cyst

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Background
Objective: to present a laparoscopic cystectomy of a presumed benign giant ovarian cyst.

Methods
We describe, using a video, the laparoscopic treatment of a 20 cm anechoic unilocular thin-walled ovarian cyst in a 35-year-old patient with negative tumour markers. The patient presented at the emergency room for increasing abdominal girth and abdominal pain. A benign serous cystadenoma was suspected from the clinical examination, CA-125 level, and imaging results, and a laparoscopical approach was decided.

A midline open-entry technique, 5 cm above the umbilicus, was used. Three additional 5 mm trocars were placed just inferior to the umbilicus and in the right and left lumbar regions. At direct laparoscopic visualization, the cyst surface was regular.

After bipolar coagulation of the cyst wall, this was punctured with a 5mm trocar, together with a laparoscopic aspiration cannula. While holding the cyst with a forceps in order to prevent leakage, two litres of clear fluid were aspirated. The puncture point was, afterwards, closed with clips. An ovarian cystectomy was performed, with preservation of ovarian parenchyma. The specimen was removed in a specimen retrieval bag. There were no intraoperative complications.

Results
The postoperative course was uneventful and the patient was discharged on postoperative day 1. The pathology report confirmed benign serous cystadenoma.

Conclusions
Giant ovarian cysts are conventionally managed by a midline laparotomy, due to technical difficulties and the possibility of malignancy. This laparoscopic technique, with intentional trocar puncture of the mass to facilitate removal, is reproducible and it has a reduced risk of intra-abdominal cyst spillage. In proper selected patients, with benign imaging appearance and negative tumour markers, laparoscopic management of giant ovarian cyst is possible.

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ES25-0261
Video Session 3 - Laparoscopic Surgery

Laparoscopic hysteropromontopexy during pregnancy

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Background
Prolapse during pregnancy is a very rare finding
The first treatment option is the placement of vaginal pessary
Surgical treatment can be considered in selected cases

Methods
We present the case of a 27 years old secundipara, 13 weeks of gestation presenting stage 3 genital prolapse.
Vaginal pessary placement was attempted and failed
Patient reported constant pain

Results
Laparoscopic Hysteropromontopexy was performed.
The position of the cervix was corrected
Patient was pain free and the pregnancy had normal evolution.

Conclusions
Laproscopic promontopexy can be performed on pregnant patients if vaginal pessary fails.

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ES25-0378
Video Session 3 - Laparoscopic Surgery

Multidisciplinary approach of bladder endometriosis: impact of the preoperative workup on the surgical treatment

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Background
Deep infiltrating endometriosis (DIE) of urinary tract is found in 1 to 2% of women with symptomatic endometriosis. The bladder is the most common site of lesions of the urinary tract (85%) and is defined as endometriosis infiltrating the detrusor muscle. The symptoms depend on the location and the size of the lesion, however 70% of women present with urinary symptoms at time of first diagnosis: acute urethral syndrome with frequency, tenesmus, burning sensation, pain during micturition, dysuria, and suprapubic discomfort may be present in some cases. Definitive treatment of bladder endometriosis consists of surgical removal of the endometriotic lesion.

Methods
This video shows a wide bladder endometriotic nodule removal applying a full thickness resection of the bladder wall after cystoscopy to properly locate the lesion.

Results
Preoperative imaginag diagonosis is mandotory in order to define the size and localization of the nodule and also the presence of ureteral infiltration. Full thickness resection of the bladder wall at the site of the lesion is one of the treatment options for women with bladder DIE. On the other hand, shaving off the nodule without opening the bladder is reserved for lesions that do not fully penetrate de bladder wall (serosa or superficial detrusor infiltration). Cystoscopy is also important to assess the distance of the lesion from the ureteral meatus to determine whether removal of the lesion requires ureteral surgery. After removing the nodule it is recommended to close the bladder in two layers of transverse sutures and postoperatively keep a bladder cateter for 7 to 10 days to prevent leakage or fistula formation. Potencial complications of the surgery are hematoma and vesicovaginal fistula.

Conclusions
Preoperative workup, transvaginal echography and a multidisciplinary team approach were definitely usefull to garantee a safe surgery with no postoperative complications.

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ES25-0285
Video Session 4 - Fibroids I Laparoscopic Surgery

Tips and tricks for laparoscopic myomectomy

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Background
The aim of this video was to teach tips and tricks to perform laparoscopic myomectomy.

Methods
Importance of a good pre operative assessment: ultrasonography and RMI preoperative evaluation

Results
Ports placement:

In case of big myomas, pull up the ports in a latero-umbilical position.

To limit the bleeding:

Pre operative: Esmya°, Decapeptyl°, embolisation

Per operative: uterine artery ligation, fast suturing

Hysterotomy: frozen section or monopolar cut

For anterior myomas: diagonally

For posterior myomas: horizontal or vertical

For fundic myomas: horizontal

Suturing:

First step: take the wall thickness of myometrium with your needle then exit through serosa

Second step: reload the needle and pass it through the serosa only

Third step: sero-serosal superficial pathway

Fourth step: with the right needle holder, take with a big bite the serosa and go deep in the myometrium.

The final aspect shows a good congruence between the two edges of the incision.

Main advantages of this technique are:

- Good hemostasis
- Less adhesion because of reverse knots and good congruence between the two edges
- Strong sutures with two layers
- In one Knot only

Conclusions
Myomectomy can be performed by laparoscopic approach even when enlarged myomas. Surgeons will have to deal with peroperative difficulties (exposure, bleeding, suturing), therefore a good preoperative evaluation is needed.

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ES25-0492
Video Session 4 - Fibroids I Laparoscopic Surgery

Are there any limits to laparoscopic hysterectomy

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Background
A case report of a 49 year old patient with known anamnesis of uterine fibroids and a voluminous uterus was selected in order to find the limits of laparoscopy if any. The patient presented chronic pelvic pain as the only symptomatology. A magnetic resonance imaging was performed that showed no irregular pattern of the fibroids. The odds of a uterine sarcoma were explained to the patient and she was given the option of an abdominal hysterectomy versus a laparoscopic hysterectomy using a morcelator. The advantages and the disadvantages of each of the two operations were also explained in detail. The patient chose the laparoscopic approach.

Methods
All trocars were placed 3 cm higher than in the normal position for a laparoscopic hysterectomy due to its size. An adhesiolysis of the sigmoid colon was necessary in order to have a clear visual of the uterus. Both ureters were exposed using a retroperitoneal approach in order to avoid any accidents with the bipolar or monopolar coagulation. The steps following this procedure were the same as the ones used in a normal sized uterus.

Results
In total the operation lasted 2.5hours. The end result of the laparoscopic hysterectomy was loss of 20ml of blood during the whole procedure. The patient left the hospital 22 hours after the operation.

Conclusions
With the right knowledge of pelvic anatomy and respecting the order of laparoscopic hysterectomy steps the only limits are the medico-legal issues of morcelation.
After careful selection and the right counseling of patients, there are **NO** limits to laparoscopic hysterectomy.

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ES25-0465
Video Session 4 - Fibroids I Laparoscopic Surgery

Laparoscopic pectopexy: a new uterine sparing surgery metod in pelvic organ prolapse

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Background
The purpose of the study was to evaluate the feasibility and share initial Turkish surgeons' experience of a new method of laparoscopic pectopexy surgery for apical prolapse cases

Methods
All operations were performed using standard endoscopic equipment (10-mm optical device inserted via a 12-mm trocar and 5-mm instruments). We opened the peritoneal layer along the left round ligament toward the pelvic side wall. The preparation started at the right external iliac vein and was carried out in the medial and caudal direction with Harmonic scalpel. We exposed an approximately 5 cm segment of the right iliopectineal ligament adjacent to the insertion of the ileopsoas muscle. Special care was taken to avoid any contact with the obturator nerve, situated distal region of working area. The same preparation was repeated on the left side of the patient. The peritoneum of uterus was dissected, and the anterior parts of uterus were prepared for the mesh fixation. A polyvinylidene fluoride (PVDF) monofilament mesh ends were attached to both iliopectineal ligaments endoscopically using nonabsorbable suture material. The uterus, respectively, was elevated to the intended tension-free position; the fixation was performed using polydioxanone suture (PDS) suture material. A hammock-like fixation of uterus resulted. Finally, we covered the mesh with peritoneum using absorbable suture material in a continuous endoscopic suturing technique.

Results
Here we describe a new method of laparoscopic apical prolapse surgery, which is especially developed as an alternative surgery to sacrocolpopexy or sacrouteropexy. The iliopectineal ligament is significantly stronger than the sacrospinous ligament and the arcus tendineus of the pelvic fascia. The structure is strong and holds suture well and possible to find enough material for a suture in the lateral part of the iliopectineal ligament, facilitating reconstruction of the floor of prolapse surgery.

Conclusions
We think that laparoscopic pectopexy surgery is a feasible, safe and comfortable operation for apical prolapse surgery. We strongly recommend the laparoscopic pectopexy as an alternative to sacral colpopexy.

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ES25-0498
Video Session 4 - Fibroids I Laparoscopic Surgery

Unusual cause of pelvic pain found at laparoscopy

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Background
A Thirty One year old nulliparous female presented to the Gynaecology clinic in June 2015 with a history of increasing pelvic pain over the last year which recently became constant. She had a history of irregular painful periods since the age of 14 which was managed conservatively. In her past medical history she had a Laparoscopic Cholecystectomy, otherwise she is fit and healthy. On examination there was general tenderness in the pelvis with mild cervical excitation on vaginal examination.

Methods
Pelvic ultrasound found a 3.7 cm simple left ovarian cyst, otherwise the scan was normal. She was suspected to have endometriosis and she was listed for laparoscopy.

Results
Laparoscopy findings: there was an oval shaped foreign body, measuring up to 3 cm, dark and feels like a stone, sitting on the peritoneum between the uterus and the bladder partially covered by adhesions. it was not possible to find an explanation to this finding initially. The theatre sister who works routinely with the general surgeons suggested that it has the appearance of a gallstone. The Laparoscopic Cholecystectomy operation notes were reviewed in theatre and it was commented that the gallstone slipped from the bag during retrieval and was not found after abdominal cavity surveillance, hence it was decided to leave it in the abdomen. No surgical follow-up was arranged following that procedure. Following adhesiolysis, the gallstone was mobilized and put in a laparoscopic retrieval bag and removed from the supra-pubic incision after extending the incision to 3 cm. The histology confirmed a gallstone. The pelvic pain settled at two month follow-up appointment.

Conclusions
Laparoscopic Cholecystectomy is associated with spillage of gallstones in 5 to 40 % of procedures, most of these are retrieved intraoperatively. Complications from gallstones left in the peritoneal cavity are very rare and most reported complications happen in the sub- hepatic area. Distant complications are very rare. There are few reports in the literature of pelvic abscesses formed on gallstones spilled in the pelvis. The surgeon should take utmost care to prevent spillage of the gallstones and should make every effort to remove them during the operation. Gynaecologist should think out of the box and always keep in mind the rare causes of pelvic pain as a differential diagnosis. This case also emphasizes on the importance of clear documentation of complications, not only in the operation notes, but also on other forms of communication with the general practitioner and the patient in order to help in the diagnosis of any future relevant symptoms.

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ES25-0292 -
Video Session 4 - Fibroids I Laparoscopic Surgery

Laparoscopic cornuectomy as a technique for removal of Essure™ microinserts

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Background
Present a laparoscopic technique for complete removal of Essure® microinserts (including nitinol coil and PET fibers). Recent concern regarding adverse outcomes (persistent pelvic pain, device malposition, nickel allergy) following Essure® placement has led to a small percentage of women requesting removal of the coils. Laparoscopic salpingectomy and salpingostomy have been successfully used for removal. Hysteroscopic removal has been achieved up to 6 weeks after placement however because of the fibrosis inducing mechanism of the inserts, there is theoretical concern regarding fragmentation or incomplete removal with a cut and pull approach.

Methods
We present a novel laparoscopic surgical approach for removal of the Essure® microinserts "en bloc" by performing a salpingectomy and mini-resection of the uterine cornua to the level of the endometrium. This approach ensures complete extraction of the Essure® microinserts. The surgery was completed in a tertiary care hospital operating theatre with standard laparoscopic and electrosurgical instruments; using a 10mm infra-umbilical port and two 5mm ports in the left lower quadrant.

Results
Successful removal of Essure® microinserts was accomplished.

Conclusions
En bloc resection of the fallopian tubes, uterine cornua, and Essure® microinserts is a feasible laparoscopic approach to ensure complete removal of Essure® microinserts. This approach is technically straightforward and can be achieved with minimal blood loss.

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ES25-0351 -
Video Session 4 - Fibroids I Laparoscopic Surgery

Laparoscopic management of cesarean scar pregnancy

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Background
An implantation of a pregnancy within the scar from a previous cesarean delivery is a rare condition of ectopic pregnancy. There is no standard treatment modality for cesarean scar pregnancy. The aim of the treatment should be a prevention of massive blood loss, preservation of uterus and maintenance of fertility.

Methods
A 25-years-old female presented with vaginal bleeding after a miscarriage. She had a previous history of cesarean section delivery. Patient got pregnant twelve months after c-section. Unfortunately, she had a miscarriage on the 12 week of gestation. Because of bleeding and trophoblast remnants in the uterus patient underwent curettage once and because of another onset of bleeding second dilation and curettage. Human chorionic gonadotropin was close to normal. Histology – missed abortion. After this event a transvaginal ultrasound revealed that there are still remnants of trophoblastic tissue in a previous cesarean scar. Patient was administered to the tertiary center for the further treatment. Laparoscopic resection of a scar with gestational tissue and wound repair was performed.

Results
-

Conclusions
Laparoscopic resection of the scar with gestational tissue and wound repair is a minimally invasive procedure that can be performed to treat cesarean scar pregnancies.

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ES25-0314
Video Session 4 - Fibroids I Laparoscopic Surgery

The use of plasmajet in gynecologic surgery

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Background
Plasma is created by adding energy to gas. The result is a high energy, low density state. Plasma energy is emitted as a precise jet by the PlasmaJet® system. It provides controlled depth of tissue penetration as well as minimal thermal effect. No electricity is being delivered to any patient tissue. Thereby undesired side effects of electric energy can be omitted. The PlasmaJet® can be utilized as a multi-functional device that has vaporization, coagulation, and superficial cutting capacities. Since ist introduction in 2004, PlasmaJet® has been used safely in both open and endoscopic cases in orthopedics, oncology, gastroenterology, liver surgery, plastic surgery of the abdomen and face, and in thoracic surgery.

Methods
We have been using Plasmajet® technology for various indications in laparoscopic gynecologic surgery. This video is meant to illustrate different applications of this system pointing out its principal advantages.

In particular we demonstrate the extirpation of ovarian cysts including the resection of endometriomas, the resection of endometriotic implants and the treatment of deep infiltrating endometriosis, adhesiolysis including the dissection of bowel segments and the dissection of the ureter.

Results
We could show that the PlasmaJet® allows precise anatomical dissection with a minimum of side effects, offering a high chance for optimal debulking in benign and in malign cases as well as maintaining ovarian function.

Conclusions
This video demonstrates the use of Plasmajet® in laparoscopic gynecologic surgery. PlasmaJet® allows organ preservation and preservation of ovarian function. This technical innovation could offer a special advantage for patients suffering from endometriosis and seeking pregnancy.

http://player.vimeo.com/video/170148313?autoplay=1

ES25-0281
Video Session 4 - Fibroids I Laparoscopic Surgery

Laparoscopic excision of a pelvic mass in a patient with primary amenorrhea

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Background
The objective of this video is to demonstrate laparoscopic resection of an adherent pelvic mass in a patient with primary amenorrhea. In addition, the workup and management of this diagnostic dilemma will be discussed.

Methods
A 27 year-old G0 woman presented with primary amenorrhea. Her blood work was significant for hypogonadotrophic hypogonadism. There was a discrepancy between her pelvic ultrasound, which reported hematometra, and her MRI, which queried an adnexal/tubal mass. Given the diagnostic uncertainty, the patient was consented for a hysteroscopy, laparoscopic salpingectomy, possible ovarian cystectomy, and possible salpingo-oophorectomy. Consent was obtained for video recording.

Results
In the operating room, the patient was found to have sexual infantilism and a large left ovarian mass. The mass was adherent to the omentum, sigmoid colon, right and left pelvic sidewall, right ovary, posterior uterus, and cul-de-sac. Frozen section showed an at least borderline serous papillary cystadenoma.

Conclusions
Gynecologic oncology was called for further management. This video demonstrates the laparoscopic excision of a large adherent pelvic mass. We also illustrate the incidental finding of a serous borderline tumor in a patient with hypogonadotrophic hypogonadism.

http://player.vimeo.com/video/169461327?autoplay=1

ES25-0411
Video Session 4 - Fibroids I Laparoscopic Surgery

"Side-Cutting Technique"; A novel approach for vaginal manual morcellation

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Background
Uterine leiomyomas are the most common indication for hysterectomy. The uterus may increase to double or triple its normal size with uterine leiomyomas. And thus patients with oversized uterus may be referred to abdominal or laparoscopic approach with power morcellation for hysterectomy. However, alternative tissue extraction options are in progress for vaginal morcellation after laparoscopic hysterectomy.

Methods
We make use of "Side-Cutting Technique" to extract hysterectomy specimens that are not easily delivered transcervically and find this technique to be safe, feasible and reproducible when there is a need to remove large specimens during laparoscopic surgery. In this technique, steadying the cervix and uterus with one or two tenaculum during manual morcellation is essential. Unlike traditional vaginal manual morcellation techniques, we do not cut cervix in pieces. After reaching the nearest portion of the uterine fundus, appropriate side is chosen by surgeon and the long axis of the body of the uterus is cut through from that side. With "Side-Cutting Technique", specimen diameter diminishes and becomes more suitable for delivery through colpotomy incision.

Results
This manual technique via the vagina provides removal of large uteri in one piece, allowing the pathologist to reconstruct the uterus in contrast to fragmenting the specimen.

Conclusions
The laparoscopic approach for hysterectomy with proven benefits like short operation times, early discharge, small scars and lower morbidity has become the gold standard, even in women with oversized uterus. When choosing a route of hysterectomy for benign disease, surgeon should not compelled to perform abdominal approach due to large specimen and limited tissue extraction options. Our willingness to recommend "Side-Cutting Technique" for vaginal manual morcellation to colleagues have increased with our clinical experience. In conclusion, vaginal morcellation is a feasible method that permits rapid uterine extraction and potentially avoids unnecessary laparotomies.

http://player.vimeo.com/video/170454726?autoplay=1

ES25-0327
Video Session 4 - Fibroids I Laparoscopic Surgery

Laparoscopic excision of rectovaginal nodule - who opened the vagina?

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Background
We are proudly presenting two challenging cases of laparoscopic treatment to deeply infiltrating endometriosis of the posterior vaginal fornix.

Both cases had laparoscopic excision of endometriotic nodules with opening and suturing of the vaginal vault with continuous Stratafix™ Polydiaxone PDO suture (ETHICON) and application of PerClot® polysaccharide hemostatic system (CryoLife®) as well as Hyalobarrier® anti-adhesion gel following laparoscopic closure of the vaginal defect.

Methods
The first patient was 42 y.o (Para 2 – vaginal deliveries), complaining of abdominal pain, chronic pelvic pain and dyspareunia.

She was seen and referred by the colorectal surgeons following a negative colonoscopy and pelvic MRI.

On bimanual examination patient was found to have a tender left uterosacral ligament nodule.She underwent diagnostic laparoscopy which revealed stage four endometriosis with right ovarian endometrioma and a frozen pelvis. A rectovaginal nodule was discovered under the left uterosacral ligament but it's excision was deferred due to an unprepared large bowel and limited access.

Subsequent MRI demonstrated thickening of the left uterosacral ligament and a 6mm lesion in the posterior vaginal fornix.

The second laparoscopy revealed a 26 x 30 x 10mm rectovaginal nodule, which was excised following bilateral pararectal dissections and laparoscopic opening of the vagina. Total operative time was 155 mins.

The second patient was 26 y.o nulliparous lady complaining of chronic pelvic pain, dyspareunia and tenesmus. She had medical management with GnRH analogues followed by laparoscopic surgery which revealed stage four endometriosis, with a 30 x 23 x 15mm rectovaginal nodule, that was excised laparoscopically in four parts. Total operative time was 194 mins.

Results
Patients recovered well, without any complications and were discharged after three and five days respectively.

They were reviewed in the outpatient clinic at 6 weeks and then at 3 months post-operatively. Both patients reported significant improvement on BSGE pelvic pain scores and on quality of life.

Conclusions
We are therefore suggesting that total laparoscopic excision of rectovaginal nodules by opening and closing the vaginal wall is both surgically feasible and it also confers advantages such as reduction in infection risks and intra-abdominal adhesions as well as faster post-operative recovery.

http://player.vimeo.com/video/170351194?autoplay=1

ES25-0027
Video Session 5 - Oncology I Technical Innovation

Laparoscopic radical trachelectomy and pelvic lymphadenectomy for early cervical cancer

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Background

Over the past 15 years, gynecological oncologists have sought ways to preserve female fertility when treating invasive cervical cancer. Many cases of cervical cancer have been diagnosed in young women with a desire to preserve their fertility. As more women are delaying childbearing, fertility preservation has become an important consideration. Radical hysterectomy and bilateral pelvic lymphadenectomy represent the standard surgical treatment for stage IA2-IB1 cervical cancer. In some women with small localized invasive cervical cancer, there is hope for a pregnancy after treatment. Vaginal radical trachelectomy (VRT) is a fertility preserving surgical procedure for early stage cervical cancers. Since Dargent introduced VRT in 1987 and first reporte dits use in 1994, more than 1000 cases of VRT have been reported involving more than 250 live birth. The tumor recurrence rate is between 4,2 and 5,3%, and the mortality rate is between 2,5 and 3,2%. However, LVRT has several limitations despite results demonstrating the safety of the procedure. One limitation is that it is an inadequate procedure for nulliparous patients and those with history of previous conization with adverse vaginal anatomy. In recent years, with the rapidly growing availability of laparoscopy surgery, LRT was introduced. It is expected that this novel surgical technique will compensate for the deficiences of LVRT. There is limited published information about this procedure.
The aim of the Study is to demonstrate the technique of laparoscopic radical trachelectomy (LRT) and laparoscopic pelvic lymphadenectomy for early cervical cancer.

Methods
Stepwise explanation of the technique using videos and pictures (educational video).

Results
In this video, the authors report a case of squamous cell tumor of the cervix (stage FIGO IB1) treated with LRT and pelvic lymphadenectomy with round ligament and uterine artery preservation.

Conclusions
LRT appears to be a safe option for women who intend to maintain their desire of a future pregnancy.

http://player.vimeo.com/video/162191743?autoplay=1

ES25-0164
Video Session 5 - Oncology I Technical Innovation

Laparoscopic metastatic pelvic lymph node dissection for cervical cancer / post radiation therapy

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Background
Quality control in pelvic lymph node dissection is achieved by identifying landmarks of pelvic vessels and nerves. This is especially important in difficult cases such as dissecting metastatic lymph nodes post radiation therapy.

Methods
A case of cervical cancer stage 2b is presented in this video. Age of the case is 43 years old of G0P0, and the biopsy revealed squamous cell carcinoma of uterine cervix. Metastatic lymph node in left iliac region together with bulky cervical tumor was identified before CCRT. After radiation therapy, cervical tumor was disappeared, but the left iliac LN was still identified. FDG-PET suggested viable tumor in this area. Laparoscopic pelvic and para-aortic lymph node dissection was performed.

Results
Used devices are mainly scisors and monopolar hook with suction. Energy devices are not used to dissect tumor from adhered vessels and nerves so as not to cause unintended damage to them. Distal and proximal side of lymph vessels is clipped to prevent lymphorrhea. Operation time was 7 hour and 34 minutes, and total blood loss was 250ml. Patient discharged on 6th day after the operation without complication. Pathological examination confirmed viable tumor in both sides of pelvis, but not in para-aortic region. Chemotherapy was the choice of the patient after operation.

Conclusions
dentifying of anatomical landmarks is essential in dissecting lymph nodes safely and completely. Devices of fine tip, together with magnifying power of endoscope and patience of the operator are required for safe procedure.

http://player.vimeo.com/video/168524678?autoplay=1

ES25-0511
Video Session 5 - Oncology I Technical Innovation

The crioprobe – the new device for easy and safe hysteroscopic myomectomy.

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Background
The uterine submucosal myomas can cause the infertility and heavy uterine bleedings. The gold standard in management of the submucosal myomas is hysteroscopy. Depends on the size and location of the myoma, the resectoscope or minihysteroscop is used. Minihysteroscopy is the best option for infertile women with small myomas. However, the resection and the removing of the myoma using the standard instruments (Versapoint, Grasper) can be difficult.

Methods
Before the procedure a transvaginal ultrasound examination was done. The procedure was performed in ambulatory setting using a 4mm continuous-flow hysteroscope and a vaginoscopic approach, without any anesthesia. The myoma was localized and the endometrium covering the myoma was cut off to visualized the surface of the myoma. Than the crioprobe was placed into the myoma tissue. During frizzing, a rotating movements were done to enucleate the myoma. The myoma frozen to the probe was simply and fast remove from the uterine cavity with the hysteroscope.

Results
The hysteroscopic myomectomy with the crioprobe is fast and easy and it is a good substitution for the cold loop technique.

Conclusions
Using the cryoprobe with the minihysteroscope offers the possibility of a safe removal of submucosal myomas, even if they are in a difficult and dangerous location (e.g. deeply embedded in the myometrium or close to the tubal ostia). This procedure can be performed in office setting avoiding more invasive and traumatic approaches. Using of the crioprobe shortens the procedure and makes it less traumatic for the uterine cavity. Myomectomy done with this device is safe for the surrounding myometrium, because the myoma is only enucleated from his capsule. The probe is also helpful during extracting parts of the myoma from the uterine cavity – they are usually hard and difficult to grasp and hold with small and delicate hysteroscopic instruments.

http://player.vimeo.com/video/170540903?autoplay=1

ES25-0119
Video Session 5 - Oncology I Technical Innovation

Innovative technique for enclosed morcellation using a surgical glove

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Background
Electromechanical morcellation has been performed inside the abdomen without any containment. Therefore, it has recently undergone increased scrutiny because of important concerns related to tissue dissemination. As a response to these serious concerns, researchers have developed various containment techniques. These techniques describe the technique of "in-bag or contained power morcellation". However, in these techniques, after placing the specimen inside the bag, the bag is pierced with a trocar to insert the power morcellator inside the bag. Therefore, bag integrity is jeopardized with these techniques. Therefore, the aim of this video presentation is to describe an innovative approach for enclosed morcellation using a surgical glove in multiport laparoscopic surgery.

Methods
The specimen was placed into the glove within the abdomen. The glove opening and thumb were exteriorized through the umbilical and left lower abdominal trocar incisions, respectively. The optical trocar and optic were inserted into the glove, which was then insufflated. The thumb tip was cut, and a power morcellator was inserted through this finger. The morcellation was accomplished within the completely enclosed glove. The thumb tip was closed, and the glove, containing residual specimens and bloody fluid, was removed from the abdomen through the umbilical incision.

Results
With the use of this technique, the risks of bag piercing and leakage during contained laparoscopic power morcellation can be eliminated.

Conclusions
With our innovative technique, a disposable latex glove can be used for an enclosed morcellation that avoids piercing the enclosure container within the abdominal cavity, thereby offering decreased risks related to bag perforation and leakage compared with previous contained power morcellation techniques.

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ES25-0245
Video Session 5 - Oncology I Technical Innovation

Laparoscopic surgery using decomposable needle-shaft clamp in malignant cases; reduced port diameter instead of reduced port number

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Background
ingle site incision is widely used for reduced port surgery to replace conventional multi-port surgery. Post-operational pain due to larger wound of umbilicus and handling difficulty due to loss of traiangulation are the problems of Single Site Incision. Endo-relief is a decomposable clamp of 5mm head combined with 2.4mm shaft, that could be one of the solutions to the handling difficulty and cosmetic outcome.

Methods
Two 5mm port for camera and suction device, / together with two needle-shaft clamp is planned to achieve scar-less operation. Additional needle port can be placed for retraction of uterus in malignant case. Three cases of endometrial caner operated in this setting is shown in the video.

Results
Total laparoscopic semi-radical hysterectomy, partial omentectomy and pelvic lymph node dissection, together with an obese case (BMI is 36.1kg/m2) were completed in this setting. Abdominal wounds of 2.4mm port were almost scarless after 1 month of the operation. In the obese case, one of the used needle-shaft clamp was curved, so obesity is not a good indication for this clamp.

Conclusions
Needle-shaft clamp of 2.4mm in diameter is used most effectively when combined with camera of 5mm in diameter. Hysterectomy in case of normal sized uterus is a good candidate for needle-shaft clamp of 2.4mm in diameter. Additional port insertion using needle-shaft clamp widen the indication of laparoscopic surgery include malignant cases.

http://player.vimeo.com/video/169437092?autoplay=1

ES25-0174
Video Session 5 - Oncology I Technical Innovation

Sex reassignment surgery in the female-to-male transsexual: laparoscopic hysterectomy and partial vaginectomy

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Background
At the Ghent University Hospital the approach to sex reassignment surgery in female-to-male transsexuals has recently changed in order to facilitate the vaginal procedure. Our current approach is to perform a total laparoscopic hysterectomy with laparoscopic partial vaginectomy, followed directly by a distal vaginectomy via vaginal route and metoidioplasty. Our aim is to evaluate the feasibility of the laparoscopic procedure.

Methods
Patients who underwent female-to-male sex reassignment surgery according to the current procedure at the Ghent University Hospital between December 2015 and May 2016 were identified. The laparoscopic procedure was performed as followed: a Koninckx uterine manipulator® (Storz) was applied to the uterus, the laparoscopic port sites were located at the umbilicus (10 mm), right (5 mm) and left fossa (10 mm), and the Sonicision® ultrasonic dissection device (Covidien) was the instrument used for hysterectomy with partial vaginectomy. To perform the partial vaginectomy the vesicovaginal and rectovaginal space were opened and the bladder and rectum were separated from the vagina extensively. The vagina was then dissected about 4 cm distally from the cervix (on the guidance of the vaginal cuff). After the uterus and vagina were removed, a distal vaginectomy and metoidioplasty were performed by the urologist.

Results
Seven patients were included. Mean operative time to perform the laparoscopic procedure was 81 min [SD 17.64]. Mean blood loss during the laparoscopic procedure was 100 mL [SD 52.38]. No perioperative complications occurred.

Conclusions
Laparoscopic hysterectomy with partial vaginectomy is a novel approach with acceptable operative time that may facilitate the subsequent distal vaginectomy and metoidioplasty procedure. Since sex reassignment surgery in the female-to-male transsexual has different approaches, more research and long term follow-up is needed to conclude what the best operative management is.

http://player.vimeo.com/video/168772019?autoplay=1

ES25-0347
Video Session 5 - Oncology I Technical Innovation

Development of a tumor model for augmented reality

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Background
The objectives were to develop a new model of laparoscopic experimental tumor and to evaluate it with the use of Augmented Reality.

Methods
We did a prospective, experimental study on ex vivo porcine kidneys. To determine the optimal pseudotumor agent to use, various substances were injected. Ideally, a tumor model should be easy to create and implant, biocompatible, safe and durable, visible on several imaging modalities at and the macroscopic scale, and comparable in texture to real tumor tissue. We finally used Alginate, because it has many advantages. Alginate was injected into the parenchyma and easily allowed us to create 4-10mm pseudotumors. Kidneys were then imaged by MRI (T1-weighted) in three planes. We improved MRI settings (0.4mm resolution, and slide thickness 1.5 mm) and pseudotumors were easily identified.

Results
Augmented Reality (AR) is a technology that allows a surgeon to see sub-surface structures in an endoscopic video. In our technique, three phases are necessary: Phase 1: segmentation phase; using the MRI images, the kidneys and pseudotumors' surface are segmented to construct a3D mesh model. Phase 2: the intra-operative shape on the kidney is determined. Phase 3: fusion phase; the pre-operative and intra-operative models are fused with the laparoscopic view. This blending gives the impression that the kidney is semi-transparent and the surgeon can see the location of the tumors inside it. On this 2D images, to improve the depth localization of the tumors the AR software allows one to display in real-time the kidneys' surface meshes in addition to tumors meshes. Our software also allows us to display the resection margins defined preoperatively by the surgeon (5mm margins in our model).

Conclusions
The simple and minimally invasive method for lesion creation, the robust imaging capabilities make this proposed Alginate model for tumor creation very valuable for further studies.

http://player.vimeo.com/video/169753598?autoplay=1

ES25-0371
Video Session 5 - Oncology I Technical Innovation

Salpingectomy for ectopic pregnancy by transvaginal laparoscopy

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Background
Natural Orifice Transluminal Endoscopic Surgery (NOTES) is an emerging field in minimal invasive endoscopy. In gynaecology, transvaginal hydrolaparoscopy (THL) was introduced in 1998 by Gordts et al., as a procedure for infertility investigation.

Numerous data have been reported on NOTES with transvaginal access to perform cholecystectomy or appendectomy. NOTES for gynaecologic surgery has advanced rather slowly. Recent reports demonstrate the feasibility of transvaginal hysterectomy.

Methods
This video shows a transvaginal salpingectomy because of a tubal pregnancy. This patient has had numerous abdominal surgeries, explaining our reluctance to perform a conventional laparoscopy, even with a pneumoperitoneum via Palmer's point. Beta-HCG was 5000 IU/ml. At vaginal ultrasound an ectopic was suspected at the left side. Then a THL was performed, confirming the presence of an unruptured ampullary ectopic in the left Fallopian tube. The THL was then converted to NOTES, using a technique described by Bækelandt et al., with conventional reusable laparoscopic instruments inserted through an inexpensive self-constructed single-port device. This was made by assembling a surgical glove, a wound protector and 3 reusable 5 mm trocars. This gloveport was then inserted through the incision of a posterior colpotomy. With the insufflation of CO_2 gas the ectopic became readily visible. Salpingectomy was performed using bipolar coagulation and scissors.

Results
The procedure and postoperative recovery were uneventful.

Conclusions
Transvaginal NOTES is a novel approach that can be used for routine gynaecological interventions.

http://player.vimeo.com/video/169655941?autoplay=1

ES25-0213
Video Session 5 - Oncology I Technical Innovation

Minimally invasive surgical management of transverse vaginal septum in virgo adolescent with hematocolpos

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Background
This video shows a new surgical technique for the treatment of transverse vaginal septum in a virgo girl with hematocolpos

Methods
A 14 year old girl, virgo, was admitted to our Pediatric Clinic with acute hypogastric abdominal pain and vomit. Ultrasound and Magnetic resonance imaging showed a retrouterine pelvic cystic mass of 10 cm as for haematocolpos and a diagnosis of complete vaginal septum of external third of vagina was made. Patient and her family, in the name of cultural and moral values refuse any operation that may compromise hymeneal integrity. Patient was placed in a dorsal lithotomy position, and under laparoscopic control a 5 mm office hysteroscope was introduced into the vagina using the vaginoscopic approach, with no speculum and tenaculum. The septum was identified and a 5 Fr bipolar electrode Versapoint was introduced through the operative channel of the hysteroscope and a bipolar electroresection of the septum was performed at a setting of 50 Watt. Thus 300 cc of old menstrual blood were drained. Foley catheter filled with 10 cc of saline solution was inserted in the vagina and it was kept in place for 2 months to prevent vaginal stenosis during phase of epithelialization. Two months after first surgery, she was readmitted for complete resection of vaginal septum by hysteroscopic Bipolar Electrosurgery

Results
Patient has been having normal menses since last surgery

Conclusions
Hysteroscopic resection of transverse vaginal septum with subsequent application of Foley catheter is a viable, safe and effective method in virgo girl that stresses the importance on the integrity of the hymen

http://player.vimeo.com/video/169348519?autoplay=1

ES25-0093
Video Session 5 - Oncology I Technical Innovation

Transvaginal excision of an eroded sacrocolpopexy mesh with abscess formation by using the SILS equipment

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Background
Frequently, pelvic organ prolapse can only be effectively treated if the surgical procedure comprises support of the central compartment. Laparoscopic sacrocolpopexy shows superior outcomes for this indication with success rates of up to 96%. However, one of the rare side effects of laparoscopic sacrocolpopexy is mesh erosion occurring in 0-2.4% (Rosati M, Curr Opin Obstet Gynecol 2014). These erosions are usually treated laparoscopically (Chamsy D, JMIG 2014). In this video we show an alternative route for excision of a symptomatic exposed mesh by using a transvaginal approach: The SILS trocar is used vaginally for abscess and mesh excision with minimally invasive instruments.

Methods
The 68 year old patient was referred with a vaginal mesh erosion which resulted in abscess formation at the vaginal apex. The patient was symptomatic with an increasingly foul smelling vaginal discharge for about one year. She had a laparoscopic sacrocolpopexy in a remote hospital 22 months before the current operation and she had a total abdominal hysterectomy 15 years ago. Except from that the patient's history was uneventful without dyspareunia, incontinence or voiding difficulties and she was otherwise content with the sacrocolpopexy result.

Results
For treatment of the abscess and the removal of exposed mesh the SILS trocar was placed vaginally and laparoscopic instruments were used. The abscess was incised, cleansed and irrigated, debrided, and the mesh excised. Laparoscopy was used to confirm that no intraabdominal lesion co-existed or occurred. Particularly, the area of the mesh excision was inspected with the rendez-vous technique (light source vaginally, laparoscopic view from abdominal cavity) to rule out sigma or rectum lesions. Postoperative course was without complications.

Conclusions
The SILS trocar used vaginally provides excellent overview of the vaginal walls and allows for precise use of microinvasive instruments in vaginal surgery. The rendez-vous technique allows for identification of intraabominal lesions.

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ES25-0267
Video Session 6 - Oncology I Urogynaecology I Laparoscopic Surgery

Strengths and weaknesses of trans and extraperitoneal laparoscopic para-aortic lymphadenectomy

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Background
The actual place of the para-aortic lymphadenectomy (PAL) in management of gynecologic malignancies is the staging in early stages of ovarian cancer and high risk group of endometrial cancer. In case of para-aortic lymph node invasion, the therapeutic strategy for pelvic gynecologic cancers is modified with indications for chemotherapy, extended-field radiation, or palliative treatment alone for gynecologic cancers. For this staging there is still no imaging technique sufficiently sensitive and specific. The advantage of the laparoscopic way for PAL is the short delay in adjuvant or neo adjuvant treatments that it offers.

Methods
The aim of this video, was to compare the Trans and Extraperitoneal approach of the Laparoscopic Para-aortic Lymphadenectomy. We expose the strengths and weaknesses of these two techniques.

Results
The Transperitoneal approach:

Short remind of the surgical procedure

Strengths:

1) Excellent exposure of right and left aortic area.

2) Possibility of concomitant bilateral pelvic lymphadenectomy or omentectomy and appendectomy in the same setting.

Weakness:

1) Obesity with major difficulties of exposure, which could be extremely difficult and time consuming.

The Extraperitoneal approach:

Short remind of the surgical procedure

Strengths:

1) Excellent exposure of left para-aortic groups.

2) Obesity: no exposition difficulties: lower rate of laparo-conversion and significantly higher number of lymph nodes harvested.

3) Fewer adhesions.

Weaknesses:

1) Bad exposure of the right side aortic area.

2) Ergonomic difficulties due to the trocars placement: two relatively close and quite parallel instruments.

3) Significantly higher rate of lymphocysts.

Conclusions
Both approaches of the laparoscopic para-aortic lymphadenectomy have some strengths and weaknesses that should be known and used by laparoscopic surgeons. They should be able to perform both approaches and choose the most adapted one, regarding the pathology and the patient condition.

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ES25-0355
Video Session 6 - Oncology I Urogynaecology I Laparoscopic Surgery

Left retroperitoneal lumbo-aortic lymphadenectomy : standard technique

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Background
To show a standardized technique for left retroperitoneal lumbo-aortic lymphadenectomy for gynecological cancers.
Lomboartic lymphadenectomy is a part of the staging of low stage cervical or endometrial cancer particularly to decide the level of the radiotherapy but it can also be a part of the treatment of ovarian cancer. The retroperitoneal access is useful because the surgeon doesn't deal with bowel and can be sometimes easier when performing step by step.

Methods
Step by step explanation of the technique using video and pictures (educative video).

Results
10 steps explaining of to do it safely and easily.

STEP 1 : Position of the team

STEP 2 :Transperitoneal laparoscopy

STEP 3 : Ports placement

STEP4 : developpement of the extraperitoneal space

STEP 5 : identification of the Vascular landmarks STEP 6 : Latero aortic lymphadenectomy

STEP 7 : Supra mesenteric preaortic lymphadenectomy

STEP 8 : Inframesenteric preaortic lymphadenectomy

STEP 9 : Precava and laterocava lymphadenectomy

STEP 10 : Extraction of the nodes

Conclusions
Laparoscopic retroperitoneal access for left lumbo-aortic lymphadenectomy is feasible and can avoid a transperitoneal approach difficult by laparoscopy in particular for obese patients.

http://player.vimeo.com/video/169591963?autoplay=1

ES25-0142
Video Session 6 - Oncology I Urogynaecology I Laparoscopic Surgery

Laparoscopic extraperitoneal lumboaortic lymphadenectomy in 10 steps– let`s make it easier!

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Background
Laparoscopic extraperitoneal lymphadenectomy has both advantages of minimally invasive approach and retroperitoneal access. Although procedure is described for more then two decades there is a lack of diffusion of the technique. Standardization and simple description of the technique may help to popularize this approach among gynecologists. We described this procedure in 10 logical steps which makes it simpler.

Methods
This video presents systematic approach to extraperitoneal lumboaortic lymphadenectomy. The procedure was clearly divided in ten steps ordered in a counter-clockwise direction.

Results
Step 1: Retroperitoneal access and installation of trocars.

Step 2: Creating of a space for subsequent lymphadenectomy and identification of anatomical landmarks.

Step 3: Left common iliac lymphnodes dissection

Step 4: Latero-aortal lymphnodes dissection

Step 5: Aorto-caval lymphnodes dissection

Step 6: Latero-caval lymphnodes dissection

Step 7: Right common iliac lymphnodes dissection

Step 8: Presacral lymphnodes dissection

Step 9: Fenestration of peritoneum.

Step 10: Extraction of bags with specimens.

Conclusions
Laparoscopic extraperitoneal access to lumboaortic lymphnodes is an effective method of lymphadenectomy which may bring benefits to a patient and physician. Presented ten stepshelp to perform each part of surgery in logical sequence making this procedure ergonomic and easier to adopt and learn. Systematization of laparoscopic techniques could help to reduce learning curve.

http://player.vimeo.com/video/168169403?autoplay=1

ES25-0071
Video Session 6 - Oncology I Urogynaecology I Laparoscopic Surgery

Laparoscopic repair of a vesicovaginal fistula after laparoscopic hysterectomy– A video presentation

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Background
Formation of vesicovaginal fistula after gynecologic operations is a rare complication and difficult to repair. 75% of vesicovaginal fistulas in Europe occur for iatrogenic reasons following surgery of the pelvis. Fistula after hysterectomy of all types has an incidence of 0.02 to 1.1% according to the literature. Risk factors are previous operations, adhesions, endometriosis and bladder injury during initial surgery. Especially previous cesarean section seems to be a risk factor for intraoperative bladder injuries and in conclusion for fistula formation.

Fistula repair is a difficult procedure and has a quiet high rate of recurrence. The incidence of fistula recurrence depends on different factors like localization, time to diagnosis, previous operations and other factors like diabetes or micro- or macroangiopathic conditions.

The goal of fistula repair is not to compromise vascularization of the tissue therefore laparoscopic surgery with its minimal invasive approach seems to be an ideal tool.

Methods
This video shows a 49 years old patient who underwent a laparoscopic hysterectomy some weeks before. She presented with a severe vesico vaginal fistula in the midline of the bladder about 2cm away from the ureteric ostium.

After identification, the vaginal and vesical margins of the fistula are excised to guarantee fresh and good vascularized tissue. The bladder is reconstructed with PDS 4-0 preplaced suture which are tight extracorporealy. We usually place double J stents into the ureters for better identification of the ureter ostia and for prevention of an accidental suturing of the intravesical part of the ureter during bladder reconstruction.

The vagina is closed with with Vicryl 0 laparoscopic sutures. After suturing the bladder is filled up with 250cc of saline to check for any leakage. The transurethral catheter remains for about 10 to 14 days.

Results
With this technique we treated in our clinic in the last 5 years 9 cases of vesicovaginal fistula with very encouraging results. 8 of these cases had a complete recovery and one of them had a recurrence which needed a second intervention.

Conclusions
The main advantages of laparoscopic approach to repair a fistula is the better view and the less tissue damage, compared to open surgery.

As gynecologic surgeons should be able to repair their complications by themselves this video could help younger colleagues and show them how to treat fistulas by laparoscopy and by to improve their technique.

http://player.vimeo.com/video/165424021?autoplay=1

ES25-0401
Video Session 6 - Oncology I Urogynaecology I Laparoscopic Surgery

Laparoscopic treatment of vesicovaginal fistula

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Background

The goal of this video is to present our laparoscopic technique for the repair of vesicovaginal fistula without bladder bivalving and using an interposition layer of fibrin glue. Vesicovaginal fistulas are a well-documented complication of gynaecological surgery, with abdominal hysterectomy accounting for 90% of cases. The laparoscopic approach aims to improve outcomes and reduce post-operative complications. A 98% success rate was reported for the laparoscopic approach without omental flap.

Methods

We present the case of a 58-year-old female, with a 15 mm supratrigonal vesicovaginal fistula diagnosed 3 weeks after total laparoscopic hysterectomy with bilateral salpingo-oophorectomy performed for atypical endometrial hyperplasia. Preoperatively the patient underwent an IVU and cystoscopy. The repair was performed 8 weeks after the initial surgery.

A urethral Foley catheter and a vaginal sponge stick were placed. Palmer's point Veress entry was used for pneumoperitoneum. A standard 4-port technique was performed.The peritoneum between the bladder and vagina was incised with monopolar scissors. The bladder was distended with 300 mL of saline and using laparoscopic scissors and counter-traction, the bladder is separated from the vagina, excising the fistula margin and adjacent fibrotic tissue. A two-layer closure of the bladder was done. Vagina is closed with a single layer of interrupted absorbable suture. Fibrin glue was injected between the bladder and vagina to separate the suture lines.

Results

The operative time was 110 min with a blood loss of 100 ml. A 16 F urethral Foley catheter was left in place. The patient was discharged on second post-operative day and the Foley catheter was removed on 21th day, after performing a cystography. The patient is asymptomatic after a follow-up of 4 months.

Conclusions

Based on our experience, the laparoscopic approach is a viable alternative for managing vesicovaginal fistula. This technique, without the use of an omental flap, is efficacious, but less challenging.

http://player.vimeo.com/video/170289761?autoplay=1

ES25-0124
Video Session 6 - Oncology I Urogynaecology I Laparoscopic Surgery

The laparoscopic posterior native tissue repair for rectocele and enterocele treatment

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Background
The posterior compartment defect is traditionally treated by vaginal route. This requires opening the vaginal mucosa and leads to a central scar. Fascia and Mucosa is separated and the access to the upper third of the vaginal wall is difficult to identify especially the definition of structures like bowel and ureter is problematic.

Methods
For the treatment of rectocele and enterocele we have developed a laparoscopic approach. The peritoneum is opened in the pouch of Douglas and the recto-vaginal septum is opened. The preparation follows an avascular space up to the anus. A running suture forms a new ceiling and enables a thickening of the vaginal wall by gathering the facial tissue.

Results
The fascia is sutured by an absorbable, mono-filamental suture 2-0. The laparoscopic access provides a perfect view at all structures. This allows the facial suturing at the whole length of the posterior vaginal wall.

Conclusions
The technique provides a new approache for native tissue repair.

http://player.vimeo.com/video/166831683?autoplay=1

ES25-0163
Video Session 6 - Oncology I Urogynaecology I Laparoscopic Surgery

Breakdown of loop electrode of bipolar TCR due to unexpected contact with return-electrode in fibroid resection: Inherent risk in construction design of bipolar TCR

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Background
Trans cervical resection (TCR) of fibroid is an effective and minimally invasive method in treating submucous fibroid with symptom. Bipolar TCR is preferred to monopolar TCR in relatively low risk of water intoxication and in free of risk of obturator nerve stimulation that may lead to uterine perforation.

Methods
Case: 46 years old, G3P2. Chief complaint was hypermenorrhea and anemia. Trans cervical resection of fibroid was planned due to sub mucous fibroid of 25mm in diameter.

Results
During the course of fibroid resection by using bipolar TCR, a spark with explosion was observed, and loop electrode was broken down. Afterward, operation was accomplished by using monopolar TCR without this phenomenon. Post operational course was uneventful and patient discharged on 2nd day after the operation. By reviewing the operation video, arrangement of loop and return electrode is supposed to relate this phenomenon. Our hypothesis is that direct contact of loop electrode and return electrode results in electric discharge by making a short circuit. Experiment reproduced this phenomenon, and showed an inherent risk of the approximated structure of bipolar TCR.

Conclusions
Bipolar TCR for fibroid resection is not recommended in this setting, and minute care should be taken so as not to contact loop electrode with return-electrode in operating bipolar TCR.

http://player.vimeo.com/video/168521347?autoplay=1

ES25-0406
Video Session 6 - Oncology I Urogynaecology I Laparoscopic Surgery

Laparoscopic excision of a non-communicating uterine horn causing cyclical pain

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Background
Non-communicating accessory uterine horns are among the most frequent, and clinical significant, unicornuate subtype of congenital Müllerian duct abnormalities (Akdemir et al.2014). The incidence of malformations in the general population of fertile women has been estimated as 4.3% (Grimbizis et al. 2001), rising to 15% in populations with recurrent pregnancy loss (Devi Wold et al. 2006). Unicornuate uterine malformation develop following arrested embryonic development of one of the two Müllerian ducts. Presenting symptoms include dysmenorrhoea, dyspareunia, infertility, endometriosis, adhesions, and life-threatening cornual pregnancy. Treatment strategies include resection of the rudimentary horn (open or laparoscopic), hysteroscopic recanalization, and endometrial ablation. The laparoscopic approach was first described over 20 years ago (Falcone et al. 1997). Although laparoscopic resection is the treatment of choice, attachment between the horns needs to be clearly defined, as this feature has the largest impact on surgical complexity. MRI is increasingly the modality of choice for pre-operative categorisation of Müllerian duct abnormalities (Yoo et al. 2015).

Methods
This presentation will illustrate pre-operative investigation of congenital uterine abnormality with magnetic resonance imaging (MRI), and demonstrate the surgical technique for laparoscopic excision of a non-communicating uterine horn in a 27 year old nulliparous women with severe cyclical pain

Results
Hysteroscopy, laparoscopic excision and die test were performed in a day surgery setting. Port sites were umbilical and bilateral iliac fossae. Olympus Thunderbeat was used for dissection. After resection of the non-communicating horn, the excision site was over-sewn with interrupted sutures. Specimen was removed via Endo Catch bag. The patient was discharged home the same day.

Conclusions
High quality pre-operative imaging can facilitate successful laparoscopic excision of a non-communicating uterine horn in a day surgery setting. This provides a minimally invasive treatment for cyclical pelvic pain secondary to congenital abnormality of the uterus, with the secondary aim of minimising future obstetric complications.

http://player.vimeo.com/video/170317500?autoplay=1

ES25-0143
Video Session 6 - Oncology I Urogynaecology I Laparoscopic Surgery

Laparoscopic placement of pre-conception cervical cerclage

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Background
In this video we present the case of a 34 year old woman that required a trans-abdominal cerclage based on her obstetrical history.

Methods
The risks and benefits of a trans-abdominal cerclage over a trans-vaginal cerclage are presented. In addition, we demonstrate the laparoscopic placement of a cerclage at the cervico-isthmic junction using the Leyland technique.

Results
A laparoscopic cerclage was successfully placed at the cervico-isthmic junction with no complications and minimal blood loss.

Conclusions
Given the benefits of a laparoscopic cerclage over a trans-vaginal cerclage, more randomized studies are needed to determine if we should expand the indications for laparoscopic cerclages.

http://player.vimeo.com/video/167557088?autoplay=1

ES25-0462
Video Session 6 - Oncology I Urogynaecology I Laparoscopic Surgery

Robot-assisted laparoscopic burch colposuspension

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Background
Our aim is to present the urogynecological anatomic landmarks and the surgical technique of robot-assisted laparoscopic burch colposuspension

Methods
Tension free vaginal tape is the main surgical treatment of stress urinary incontinence without intrinsic sphincter deficiency. However increasing numbers of publications about mesh related complication, additionally the notification of U.S. Food and Drug Administration (FDA) about mesh use lead the physicians to perform mesh free surgery. Laparoscopic burch colposuspension is the mesh free surgical treatment option at patients with stress urinary incontinence however it requires advanced laparoscopic dissection and suturing skill. Technological innovation at robot-assisted laparoscopic surgery gave us the advantages of the improved articulation, multiple degrees of movement and 3-D visualization and facilitates the dissection and suturing at tight spaces.

Results
We performed robot-assisted laparoscopic hysterectomy together with burch colposuspension at patient with uterine prolapse and stress urinary incontinence. Robot-assisted technology facilitated the tissue dissection and suturing in tight spaces thus we finished the surgery faster and without any complication.

Conclusions
Robot-assisted laparoscopic burch colposuspension can be performed at patients whom already undergo abdominal surgery such as hysterectomy, sacrocervicopexy or sacrocolpopexy to profit by the advantages of the da Vinci system

ES25-0439
Video Session 7 - Endometriosis I Hysteroscopic and Laparoscopic Surgery | Complications

Obturator endometriosis

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Background

Endometriosis can be pelvic or, rarely extrapelvic and classically is defined as the presence of endometrial glands and stroma outside the uterine cavity. This patient presented with cyclic leg pain at the sensitive area of obturador nerve. The goal was to achieve functional benefit respecting all the surrounding structures. The laparoscopic approach provided a excelent access to this retroperitoneal structure

Methods

Objective: To show a rare case of endometriosis located exclusively in the obturator internus muscle.

Design: Step-by-step explanation of the laparoscopic aproach using videos and pictures.

Results

Surgery revealed a normal pelvic cavity and the retroperitoneal space dissection was performed. A mass located within the right obturator internus muscle, in between the right iliac external vein, corona mortis vein and right obturator nerve was identified. The whole region was inflamed. Section of the tumor released a chocolate-colored fluid consistent with endometriosis.

Conclusions

We reported a case of endometriosis, where the single mass discovered was located within the right obturator internus muscle, with neuronal involvement of obturator nerve. The fundamental role of laparoscopy surgery in diagnosis and treatment of endometriosis was clear in this case, since there are no pathognomonic clinical and imaging findings.

http://player.vimeo.com/video/170442803?autoplay=1

ES25-0478
Video Session 7 - Endometriosis I Hysteroscopic and Laparoscopic Surgery | Complications

Hysteroscopic myomectomy using IBS® (Integrated Bigatti Shaver)– first approach

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Background
Integrated Bigatti Shaver (IBS®) has been studied to improve the results of conventional resectoscopy and reduce its complications (fluid overload, perforation with bowel injury, …). We used this device for the first time at our hospital.

Methods
We present a video of an hysteroscopic myomectomy using Integrated Bigatti Shaver.

Results
We present a case of a fifty-six years old female referred to our appointment because of a submucous fibromyoma found on transvaginal ultrasound. A diagnostic hysteroscopy was performed in a first approach but due to the large size of the formation (30mm approximately), a myomectomy using IBS® was scheduled in a second-time. The procedure evolved with no complications at outpatient regimen. All the submucous component of the fibromyoma was excised. Total duration of the procedure was 25 minutes.

Conclusions
Integrated Bigatti Shaver is simple to use with similar results to resectoscopy. From our personal experience, recognisable advantages seem to be the lack of use of high-frequency bipolar current, the removal of tissue chips at the same time of resection allowing a better vision control and the apparent reduction of the learning curve.

However, regarding to larger myomas it seems a time consuming technique compared to conventional resectoscopy. In this specific intervention, since it was our first approach to this technique, the duration of the procedure was bigger than conventional resectoscopy.

http://player.vimeo.com/video/170526102?autoplay=1

ES25-0059
Video Session 7 - Endometriosis I Hysteroscopic and Laparoscopic Surgery | Complications

Adenomyosis- possible laparoscopic surgical solution

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Background

Adenomyosis, which was first described in 1860, is a common benign uterine abnormality characterized by the presence of endometrial glands and stroma in the myometrium localized ectopicaly. Its incidence is difficult to determine, but varies in the literature from 8.8 to 61.5%. A clear etiology and pathogenesis is not known. It is believed possible influence of disrupted basal membrane, which allows invasion of endometrial glands and stroma in the myometrium layer. This disruption of the basal membrane can occur after previous gynecological procedures in the uterine cavity (such as curettage, abortion). Adenomyosis can be roughly divided into two types - diffuse and focal adenomyosis. Diffuse adenomyosis, which occurs in about 75% of the cases . Adenomyosis in 80% are found in women between 35-50 years.

The main symptoms of adenomyosis are enlarged uterus, pellipatia, dysmenorrhea, hypermenorrhea and sterility.

Diagnosis of adenomyosis occurs mainly via vaginal ultrasound. Its specificity of 96% and a positive predictive value of 80%. Typical findings include thickening of the junctional zone at 10-12 mm and inhomogeneous thickening of the uterine wall with numerous hypoechogenic lacunas. Another possibility is the MRI diagnosis.

The most common treatment modality is hysterectomy. In conservative approach we can use progestagen hormone therapy or GnRH analogues.

Another treatment modality is an attempt to achieve maximum extirpation (cytoreduction) of adenomyosis with uterine preservation.

Methods

We would like to present Osada‘s laparotomy technique extirpation of adenomyosis, but we performed this technique after some adjustments laparoscopically.We started procedure by preparation of uterine arteries and their temporarry clamping. After that we did vecrtical incision from posterior to anterior uterine wall. We aplicated Patent Blau into uterine cavity and using diffusion into the surrounding tissue we can approximately clarify our localization and the relation to the uterine cavity. Subsequently we performed gradual extirpation of adenomyosis, leaving 1 cm rim of tissue under the perimetrium and approximately 1 cm above endometrium. There are no clear borders of adenomyosis and healthy myometrium. We performed subsequent resuture of myometrium in 3 layers.

Results

We've performed these procedure in 3 patients with dysmenorrhea, hypermenorrhea and desire of pregnancy. In all patients there was excellent efect on dysmenorea and hypermenorea. Patients are now in the IVF program.

Conclusions

In developed countries there is a trend of delaying pregnancy to later age. Adenomyosis is a disease that occurs later in life and is manifested by dysmenorrhea, hypermenorrhea and reduced fertility. Laparoscopic extensive extirpation of adenomyosis is the method of choice in preserving the uterus for possible subsequent pregnancy.

http://player.vimeo.com/video/165055496?autoplay=1

ES25-0318
Video Session 7 - Endometriosis I Hysteroscopic and Laparoscopic Surgery | Complications

Laparoscopic adenomyomectomy

Antoine Koch[1], Lise Lecointre[1], Victor Gabriele[1], Aline Host[2], Chérif Youssef Akladios[1], Olivier Garbin[2]
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Background

A 29-year-old patient was referred to our hospital for secondary infertility in a context of adenomyosis.
Her medical history was marked by 2 operative laparoscopy for severe endometriosis including a sigmoid resection, a vaginal delivery and a new laparoscopy for endometriosis.
Diagnosis of adenomyosis was based on clinical findings (pelvic pain, dysmenorrhea) and ultrasound (adenomyoma of the posterior wall of the uterus). Pelvic MRI confirmed the diagnosis (adenomyoma of 5*6 cm associated with endometriosis).
The patient wanted a new pregnancy and didn't want hormonal treatment.

Methods

An operative laparoscopy was scheduled.

Results

Extensive adhesiolysis was performed, particularly at the posterior part of the uterus.
Uterine arteries are bilaterally clipped.
Adenomyomectomy of the posterior wall of the uterus.
A two-layer suturing with separated stitches was realized.
Morcellation of the adenomyoma.

Conclusions

Pregnancy is allowed 6 months after surgery.
IVF is considered in light of pelvic adhesions.
Uterine rupture is the main risk during pregnancy.

http://player.vimeo.com/video/169517779?autoplay=1

ES25-0206
Video Session 7 - Endometriosis I Hysteroscopic and Laparoscopic Surgery | Complications

Vesico-vaginal injury during laparoscopic hysterectomy and repair in the same procedure

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Background
Hysterectomy is one of the surgical techniques more used in gynecology. The endoscopic approach is not exempt of complications.

One of the complications more important is the vesico-vaginal injury, its prognosis improves with early diagnosis and subsequent repair.

The case report presents a laparoscopic hysterectomy and double oophorectomy, a vesico-vaginal iatrogenic injury during the procedure with an early diagnosis and immediate repair in the same surgical time.

Methods
The patient is 34-years-old woman with 7 month history of dysfunctional uterine bleeding. She is affected with BRCA 2 gene and a Bournerville syndrome and important family oncologic history. A laparoscopic total hysterectomy with double oophorectomy was programed.

The patient underwent a laparoscopic total hysterectomy with double oophorectomy. During the procedure, an unintended vaginal and vesical opening was made with uterine mobilizer. A cystoscopy was made at the same procedure that located the injury of 2 cm in the posterior wall of the bladder. A dissection of both anatomic structures was performed and closed separately with 2/0 resorbable stiches. We used a omentun flap between the vagina and bladder to prevent a vesico-vaginal fistula. Patient recovery was uneventful and she was discharged on day four with urinary catheter.

Results
We aimed to show the importance of early diagnostic of vesico-vaginal injuries and the feasability of laparoscopical repair. The video illustrates a technique using the epiplon to separate both anatomic structures.

Conclusions
- The estimation of urogenital fistulas is 0.5% after simple hysterectomy to 10% for radical hysterectomy.
- The risk of fistula after surgery depends on the location of the lesion, intraoperative diagnosis and repair.
- The most important complication of fistula repair is the failure, despite an early diagnostic, it can occur between 7-20% of the cases.

http://player.vimeo.com/video/169282376?autoplay=1

ES25-0519
Video Session 7 - Endometriosis I Hysteroscopic and Laparoscopic Surgery | Complications

Use of Ultravision® surgical smoke clearance system in gynaecologic laparoscopy

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Background

Surgical smoke continues to be a problem in operative laparoscopy. Smoke reduces vision with the risk of inadvertent injury and complications. Surgical smoke can also interfere with energy delivery in true laser beam delivery systems eg. CO2 laser. CO2 laser continues to be one of the few energy modalities proven to be effective in the surgical treatment of Stage 1-3 endometriosis in randomised controlled trials (Sutton et al 1997, Kent et al 2014).

Methods

There are currently two types of smoke extraction, active suction and passive flow. Active suction is effective but is more complicated and requires a high flow insufflator to keep up with the rapid extraction of gas so maintaining the pneumo-peritoneum. It also results in the passage of high volumes of CO2. Passive extraction through a filter is simpler but less effective depending on volumes of smoke generated.

Results

Ultravision® (Alesi Surgical) is a simple electrosurgical device which transiently charges smoke particles via a stainless steel wand introduced via a separate 2mm catheter or the new 5mm port assembly. This results in rapid electrostatic precipitation of the charged smoke particles within the abdominal cavity. It works on a similar principle to unipolar electrosurgical instruments so does require a standard return plate but it is operating at powers of 500-1000 times less than standard unipolar electrosurgical instruments, so the chance of inadvertent electrosurgical injury is negligible.

Conclusions

This video demonstrates the difference between the use of current passive flow smoke extraction systems and Ultravision surgical smoke control using the new 5mm port assembly during laparoscopic CO2 laser vaporisation of endometriosis.

http://player.vimeo.com/video/180276875?autoplay=1

SELECTED FOR BEST POSTER PRESENTATION (40)

ES25-0028 - P*001
Best Selected Posters

Laparoscopic transection and immediate repair of obturator nerve during pelvic lymphadenectomy

Minsun Kyung[1]
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Background
Intraoperative injury of the obturator nerve has rarely been reported in patients with gynecological malignancies undergoing extensive radical surgeries. Irreversible damage of this nerve causes thigh paresthesia and claudication. Intraoperative repair may be done by end-to-end anastomosis or grafting when achieving tension-free anastomosis is not possible.

Methods
A 42-year-old woman with stage II endometrial adenocarcinoma sustained a left obturator nerve transection during pelvic lymphadenectomy that was recognized immediately. The nerve had been cleanly transected. The distal edge was oriented and laparoscopically reapproximated to the proximal portion with 5/0 prolene; a tension-free anastomosis was achieved

Results
It took 15 minutes to repair the transected laparoscopic repair was performed successfully, with the patient experiencing no residual neuropathy 6 months postoperatively.

Conclusions
Immediate laparoscopic repair was successful and there was no functional deficit in the left thigh for six months postoperatively.

ES25-0032 - P*002
Best Selected Posters

Laparoscopic pectopexy - new method for treatment of pelvic organ prolapse

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Background

Pelvic organ prolapse is highly prevalent in women (30–50%)[1] , with a lifetime risk of surgical repair of 11% [2] . Abdominal sacrocolpopexy has been shown to have one of the highest long-term anatomic success rates (78 –100%) [3,4] among procedures for pelvic organ prolapse repair. Sacral colpopexy can be considered the “gold standard” in the correction of vaginal vault prolapse,In 2007, Banerjee C., Noé KG first described the pectopexy as a new technique for apical repair.They suggest, that pectopexy(fixation of vagina or cervix in a hammock-like manner to both iliopectineal ligaments using a synthetic mesh) can be a good alternative to laparoscopic sacropexy. Pectopexy showed promising results in recent literature.

We decided to present our own results of this new promising technique**Methods**
From January 2015,to July we performed 15 laparoscopic pectopexy . All these surgical procedures were performed by one highly qualified in the field of endoscopic surgery specialist .Only patients with symptomatic primary vaginal prolapse POP-Q> 2 were eligible for surgical procedures.All procedures were performed using standard endoscopic equipment . Laparoscopic supracervical hysterectomy were performed at first , after that nonabsorbable prolene soft mesh (Ethicon) was inserted into the abdominal cavity. The ends of the mesh were attached to both iliopectineal ligaments endoscopically,and were fixed to the ligaments with nonabsorbable suture material. The cervical stump, was elevated in tension-free position; the fixation was performed using nonabsorbable suture material . The mesh was covered with peritoneum using absorbable suture material in a continuous endoscopic suturing technique.

Results

No major complications were seen during and after pectopexy. The mean operation time was 60 minutes ,blood loss 15-20 ml.The follow-up was 6 month after surgical procedure.. Patients satisfaction were excellent ,and during follow-up period we didn’t find prolapse reccurence.(Tab.1)

Follow-up results Observations time - 6 month

Outcomes	n.of patients
Satisfied with the surgery	13
Recurrence of prolapse	0
Stress urinary incontinence	1

Conclusions

In case of difficulties caused by anatomic variations,the laparoscopic pectopexy as an alternative to sacropexy can be recomended .The laparoscopic pectopexy is a good alternative to the laparoscopic sacropexy. It is equally effective and has less complications (injury presacral vessels or hypogastric trunk,contipations) . We found excellent outcomes of this novel laparoscopic technique for pelvic organ prolapse repair and will use this procedure more often in our daily practice.

ES25-0041 - P*003
Best Selected Posters

Full thickness disc excision in deep endometriotic nodules of the rectum. A prospective cohort of 106 patients

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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 radical rectal surgery.

The aim of our study was to assess the postoperative outcomes of patients with rectal endometriosis managed by full thickness disc excision.

Methods

Prospective study enrolling 106 consecutive patients with colorectal endometriosis managed by disc excision between June 2009 and April 2016. They were managed by laparoscopic deep shaving followed by full thickness disc excision to remove the shaved rectal area. Disc excision was performed using: Contour® Transtar™ stapler (the Rouen technique) in 42 patients, End to End Anastomosis (EEA) circular transanal stapler in 61 patients, and direct (transvaginal or suprapubic) excision in 3 patients.

Results

The largest diameter of specimens achieved was significantly higher using the Rouen technique (58±9 mm) than the End to End Anastomosis stapler (34±6 mm). Diverting stoma was performed in 62 patients (59%) with very short distance between rectal and vaginal sutures. Twelve patients (11.3%) had associated resection of sigmoid colon for multiple colorectal endometriosis. Six rectovaginal fistulae were recorded (5.7%) in patients with associated large resection of infiltrated vagina; as five of them have been undergoing stoma, no rectovaginal fistula was actually complicated and their reparation was not technically difficult. Transitory bladder voiding was revealed in 13 patients (12.3%), however no patient required systematic bladder catheterization longer than 6 months. Median postoperative value for the Gastrointestinal Quality of Life Index and the Knowles-Eccersley-Scott-Symptom Questionnaire improved progressively 1 and 3 years after surgery.

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.

ES25-0043 - P*004
Best Selected Posters

Rectal shaving in deep endometriosis infiltrating the rectum: a 5-year continuous retrospective series

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Background

The goal is to report postoperative outcomes following rectal shaving for deep endometriosis infiltrating the rectum.

Methods

Retrospective study using data prospectively recorded in the CIRENDO database, concerning consecutive patients managed by rectal shaving, whose follow-up ranged from 1 to 6 years.

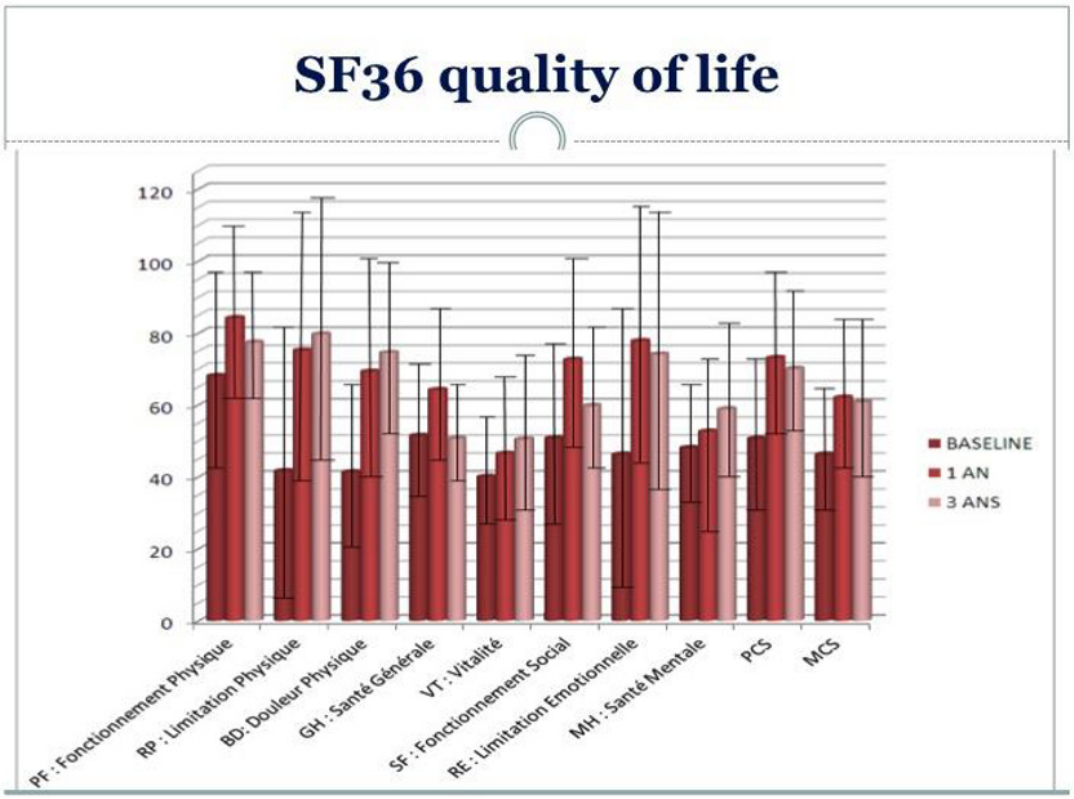
Rectal shaving was performed using ultrasound scalpel or scissors and plasma energy..

Postoperative digestive function was assessed using standardized gastro-intestinal questionnaires: the Gastrointestinal Quality of Life Index (GIQLI), the Knowles-Eccersley-Scott-Symptom Questionnaire (KESS) and the SF36.

Results

122 consecutive patients were recorded. Rectal shaving was performed using ultrasound scalpel or scissors and plasma energy in 68 and 54 women, respectively.

Nodules were between 1 and 3 cm, <1 cm and >3 cm in diameter, in 73.7%, 11.5% and 14.8% of cases, respectively. They were located on the mid (49.2%) and upper rectum (50.8%).
Clavien-Dindo 3a, 3b, 4a and 4b complications occurred in 0.8, 5.7, 1.6 and 0.8% of cases, respectively. Excepting two rectal fistulae (1.6%), the majority of complications were not related to rectal shaving itself.
Gastrointestinal scores revealed significant improvement in digestive function and pelvic pain at 1 and 3 years after rectal shaving, except for constipation. The SF36 score revealed significant improvement in the quality of life at 1 and 3 years postoperatively.



Rectal recurrences occurred in 4% of patients, 2.4% of whom had segmental resection, 0.8% shaving and 0.8% disc excision. Three years postoperatively, pregnancy rate was 65.4% among patients with pregnancy intention, 59% of whom conceived spontaneously.

Conclusions

Our data suggest that rectal shaving is a valuable treatment for deep endometriosis infiltrating the rectum, providing a low rate of postoperative complications, good improvement in digestive function and satisfactory fertility outcomes.

ES25-0442 - P*005
Best Selected Posters

Prevalence, determinants and impacts of primary dysmenorrhea among adolescents in private school students of Dubai, DHA-UAE 2016

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Background

Primary dysmenorrhea is considered the most common gynecological problem among adolescents. Studies showed that the prevalence of primary dysmenorrhea ranges from 20% to 90%. Morbidity due to dysmenorrhea represents a substantial public health burden. Primary dysmenorrhea is one of the leading causes of absenteeism from school and is responsible for diminished quality of life of adolescents. Despite its high prevalence and associated negative effects, many adolescents do not seek medical care for this condition.

Methods

This cross-sectional study will be conducted in privateschools of Dubai.Sample size is calculated using OpenEpi website (http://www.openepi.com/Menu/OE_Menu.htm) .Sample size was calculated to be 383.Multistage stratified random sample withproportional allocation will be carried out. Ten schoolswill be randomly selected from Deira and Bur Dubai and systematic sampling will be done.Students will be randomly selected from within the selected schools if eligibleto participate in the survey. Informed consent will be obtained fromrespondents before collecting data. A specially designed form providinginformation about the study will be given to respondents. Participants will answersurvey questions in the classroom. The DHA ethics committee will be targeted toapprove the study protocol. Students will be informed of their right towithdraw from the study at any time.

Operational definitions of Variables :

Dysmenorrhea :

Normal Menstrual cycle /Duration , amount

Measurementscale : Pain scale

The questionnaire included data regarding

· **demographicfeatures**,

· menstrualpattern (menarche age, cycle length, menstrual flow length, and menstrual bloodquantity)

· useof contraception,

· severityof dysmenorrhea and associated symptoms, the body area, frequency, intensity(if pain was experienced during the last three cycles),

· numberof years of painful menstruation, duration of pain, region of pain,

· presenceof other complaints accompanying dysmenorrhea and impact of menstrual pain ondaily activities.

· Inaddition, the questionnaire addressed information about menstrual abnormalitiesin close relatives, extra genital pathologies and treatments used.

· Thequestions were also related to the impact of dysmenorrhea on school performanceand attendance.

Results
Menstrual pain was significantly associated with school absenteeism and decreased academic performance, sports participation, and socialization with peers .

Conclusions
Dysmenorrhea is highly prevalent among our adolescents and is related to school absenteeism and limitations on social, academic, and sports . Given that most adolescents do not seek medical advice for dysmenorrhea, health care providers should screen routinely for dysmenorrhea and offer treatment.

No previous studies regarding prevalence and factors of this health problem in Dubai could be located. These efforts will be of benefit for decision makers to be able to plan to target this health problem based on solid information.

ES25-0114 - P*006
Best Selected Posters

Ovarian reserve after laparoscopic salpingectomy: a systematic review and meta-analysis

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Background
Although, there has been a growing concern over the possible adverse effect of salpingectomy on ovarian reserve, this issue has not been adequately investigated. The aim of this meta-analysis was to evaluate the effect of salpingectomy on ovarian reserve as determined by circulating serum anti-Müllerian hormone (AMH).

Methods
Data Sources: MEDLINE, Embase, Dynamed, ScienceDirect, and the Cochrane Library were searched electronically.

Study Selection: We considered all prospective and retrospective cohort studies as well as randomized controlled trials that analyzed changes in serum AMH concentrations after salpingectomy performed for any indication. The included studies were conducted in the period between January 2000 and April 2016. Thirty-nine studies were identified, of which four were eligible for this analysis.

Data Extraction: Two investigators performed the data extraction independently.

Results
Pooled results of 300 patients showed no statistically significant change in AMH serum level after salpingectomy (weighted mean difference (WMD) -0.08ng/ml; 95% confidence interval (CI) -0.18 to -0.03) and heterogeneity between studies was low. subgroup analysis based on laterality (bilateral), age (<40) and AMH kits (Gen II assay) revealed no change in serum AMH concentrations after salpingectomy still showed no change in circulating AMH.

Conclusions
In conclusion, laparoscopic salpingectomy performed for various indications seems to have no short term impact on ovarian reserve as measured by the serum AMH level. The long term effect of this procedure on ovarian reserve remains uncertain.

ES25-0131 - P*007
Best Selected Posters

Laparoscopic vs. open hysterectomy in case of uteri weighing > 1 kilogram: a study on 186 patients

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Background
symptomatic fibroids represent one of the main indications for hysterectomy in case of benign disease. the likelihood of encountering very large fibroids and uteri weighing > 1 kilogram at a referral institution is approximately 1 out of 19 hysterectomies. the aim of the present study has been to analyse all the cases of laparoscopic (tlh) and open abdominal hysterectomy (ah) for benign disease in cases of uteri weighing >1 kilogram at our institution, comparing the results of the two different approaches in terms of peri-operative complications.

Methods
131 patients and 55 patients underwent tlh and ah respectively for benign pathologies with uteri weighing ≥ 1 kg. the choice regarding the surgical approach was guided by clinical characteristics and was at the discretion of the first operator. mono or bilateral adnexectomy was performed according to patient's age or ovarian characteristics. the two groups were compared for demographic characteristics (age, parity, body mass index, previous surgery, abnormal bleeding related anemia, uterus weight), intraoperative data (operation time, intraoperative bleeding, the need of conversion to open surgery, intraoperative complications) and post-operative aspects (hospital stay, hb drop, complications after surgery classified by clavien-dindo score).

Results
there were no differences between groups in terms of demographic characteristics and rate of previous abdominal surgery. a total of 34% and 22% of patients in tlh and ah groups were obese or overweight. uterus weight was 1420 (range 1000-9050) grams in the ah group vs. 1110 grams (range 1000-3100) in the tlh group (p=0.0004). conversions from intended laparoscopy to open surgery occurred in 9 cases (6,8%). operative time was significantly longer in tlh group (125 vs. 85 min, p<0.0001). estimated blood loss was higher in the open group: 150 (0-1700) vs. 200 ml (50-3000) (p=0.0211). two intraoperative complications occurred: one bladder lesion (0,7%) during tlh and one bowel lesion (1,8%) during ah. median hospital stay was shorter among laparoscopic cases (1 vs. 3 days, p<0.0001). hb drop was similar between groups: -1,3 (range 0 - -4.5) in the tlh group vs. -1 (range 0 - -4.69) in the ah group (p=0.97). no differences in terms of postoperative complications (dindo<1, dindo>2, late complications) were observed between groups (p=0.3186, p=1.00, p=1.00, respectively).

Conclusions
based on these data laparoscopic hysterectomy is an effective and safe approach to remove even extremely enlarged uteri. the use of minimally-invasive surgery in this type of situations significantly reduces the length of postoperative stay. at a referral center, this technique can be successfully accomplished in most patients, including patients with previous abdominal surgery and overweight/obese women.

ES25-0132 - P*008
Best Selected Posters

Minilaparoscopy for sentinel node dissection in endometrial and cervical cancer

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Background
Lymphatic mapping and sentinel node dissection (snd) are increasingly used in the management of early endometrial and cervical cancer, in order to avoid early and long-term complications associated with systematic lymphadenectomy, without decreasing the ability to identify nodal metastases. mini-laparoscopic approach using 3-mm instruments represents an effective alternative to standard laparoscopy due to its better cosmetic results, reduced skin trauma and lower rate of wound complications. we analyzed the outcomes of all consecutive cases who underwent snd and surgical comprehensive management for endometrial (ec) and cervical cancer (cc) approached by minilaparoscopy.

Methods
All cases of minilaparoscopic snd for ec and cc in the period between january 2015 and march 2016 were identified. in all cases the cervix was injected with 2 ml diluted to 1.25 mg/ml of indocyanine green (icg) superficially and deeply in the stroma at the two cardinal points. a 5-mm 0° optical camera with a near-infrared high-intensity light source for detection of fluorescence imaging was inserted through the umbilicus. three ancillary 3-mm trocars were inserted suprapubically to accomplish the procedure.

Results
A total of 8 women were included: 6 with ec (median age 58; range, 52-75 years) underwent minilaparoscopic pelvic snd and biopsy plus extrafascial total hysterectomy and bilateral salpingo-oophorectomy; 2 patients with cc (age 38 and 56 years) underwent minilaparoscopic snd and pelvic systematic lymphadenectomy plus radical hysterectomy and bilateral salpingectomy or bilateral salpingo-oophorectomy. no intraoperative complications nor conversions to laparotomy were registered. median operative time was 120 (range 90-180) and 165 (range 150-180) minutes for ec and cc, respectively. estimated blood loss was 50 ml (range 0-150) and 100 ml for ec and cc, respectively. no blood transfusions were needed. sentinel nodes were detected in all patients. no bulky nodes were identified intraoperatively. the anatomic distribution of sentinel nodes in ec was: common iliac artery (72,7%), external iliac artery (9%), vena cava (9%); in cc: obturator fossa (100%). no icg injection-related complications were registered. hospital stay was 1,5 (range 1-2) and 4 (range 3-5) days for ec and cc, respectively. one post-operative complication was registered in a patient with cc (urinary post-operative retention which spontaneously resolved after 2 days of indwelling catheterization). in one case of cc sentinel node was positive for macrometastasis. all the other sentinel nodes were negative.

Conclusions
The combination of minilaparoscopy and snd provides a feasible alternative for ec and cc surgical treatment, with minimization of operative trauma.

ES25-0133 - P*009
Best Selected Posters

Correlation between hysteroscopic findings and histopathologic diagnosis: cross-sectional study in a Brazilian reference center

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[2]Women's Health Reference Center - Pérola Byington Hospital, Medical Board, São Paulo, Brazil
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Background
Hysteroscopy is an important method in the evaluation of the uterine cavity, being considered the "gold standard" to diagnose intrauterine disorders. Nevertheless, there is an ongoing debate as to its diagnostic value, because some studies have shown that hysteroscopic evaluation is visual, heterogeneous and subjective.
Objective: The aim of this study is to compare the visual analysis of hysteroscopic findings and histopathologic results.

Methods
Between January and December 2015, 692 women underwent hysteroscopy and biopsy in Women's Health Reference Center-Pérola Byington Hospital, in São Paulo-Brazil.
The medical charts of these patients were reviewed, as well as their hysteroscopic reports. Then, a database was created using Excel. The visual evaluation of uterine cavity was compared to the histopathologic result, obtained in the same hysteroscopic procedure. Hysteroscopic findings and histopathological results were classified as: endometrial polyp, submucous myoma, endometrial hyperplasia, endometrial cancer and normal cavity.

Results
The mean age was 55.25±12.58 years. The indications for performing hysteroscopy and biopsy were: ultrasound findings in asymptomatic women (42.63%), post-menopausal bleeding (31.36%), abnormal uterine bleeding (23.85%) and infertility (2.16%).

As for endometrial polyps, the sensitivity of hysteroscopy was 94.9%, the specificity was 71.4%, the positive predictive value (PPV) was 81.3% and the negative predictive value (NPV) was 94.4%.

In submucous myomas, the sensitivity, specificity, PPV and NPV of hysteroscopy when compared to histopathologic results were, respectively: 80%, 97.1%, 81.4% and 96.8%.

In patients with endometrial hyperplasia, the sensitivity, specificity, PPV and NPV of hysteroscopy were, respectively: 62%, 89.1%, 36.3% and 95.9%.

Sensitivity, specificity, PPV and NPV in hysteroscopic detection of endometrial cancer were, respectively: 63.6%, 98.6%, 79.6% and 96.9%.

The hysteroscopic diagnose of normal cavity had the results for sensitivity, specificity, PPV and NPV of, respectively: 30%, 98.2%, 86.3% and 78.8%.

Taking into account the accuracy of the hysteroscopic procedure, it was obtained the kappa coefficient (K), which measures the agreement between the diagnostic methods. The agreement between the visual hysteroscopic analysis and the histopathologic result was very high (K = 0.87).

Conclusions

The purely visual evaluation of hysteroscopy is considered subjective, and, therefore, examiner, experience and skill dependent.

Studies show that this technique has low sensitivity mainly to identify endometrial hyperplasia and cancer, which is also found in our analysis. This can be explained by the examiner's tendency to over-diagnose malignancies. However, even in these pathologies, hysteroscopy has great specificity.

As for benign disorders, this procedure presented itself as a proper screening exam, due to its high sensitivity and negative predictive value. Moreover, in general, the accuracy of hysteroscopic evaluation was high.

Therefore, this method can be considered of great value to diagnose endometrial disorders, having its precision augmented when submitting the patients to directed biopsy, in the same procedure.

ES25-0150 - P*010
Best Selected Posters

Novel inorganic simulator model for laparoscopic myomectomy: preliminary evaluation

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Background
Current organic models of uterine fibroids used to perform and acquire skills in laparoscopic myomectomy are very limited and they have a great lack of reality to reproduce the technical characteristics of the surgery. The aim of this study is to present our bench model and to assess its preliminary validity for myomectomy on a standarized physical simulator.

Methods
Morphology and measures of the organ were obtained through MRI and CT-scan on 4 patients. With these measures two 3D models of the uterus and one fibroid, with its respective negative silicone mold, were created by means of a 3D modeling software. The myomectomy bench-model was created using a silicone mixed with additives, that alters the hardness and the fell of the cured silicone rubber. It was colored with a flesh tone silicone pigment, in order to obtain a substance with properties similar to human tissues. The model was placed into the validated physical simulator SIMULAPâ, which reproduces a patient's abdominal cavity and six expert gynaecologists performed a laparoscopic myomectomy. They were given a post task questionnaire to evaluate the model and to demonstrate its preliminary validity. The questionnaires were composed by 12 items rated on a 5-point Likert scale.

Results
Participants rated the realism of the morphology and anatomical features of the model with 4,2±0,31 and the texture and consistency of the materials with 3,9±0,56. They also rated the usefulness of the model for the training of the residents with a score of 4,8±0,31 and for the fellows with a score of 4,5±0,74. Participants strongly believed that this model should be included in the laparoscopic training programs. Finally, overall impression of the model obtained a score over ten of 9,1±0,41.

Conclusions
Our inorganic simulator model has demonstrated its preliminary validity on laparoscopic myomectomy training and seems to be a good device to develop specific skills in laparoscopic myomectomy. Future assesment of the clinical improvement on laparoscopic myomectomy after using our new device will be needed in order to consider it a reference training simulator for this type of surgery.

ES25-0158 - P*011
Best Selected Posters

Could office hysteroscopy have a role in the diagnosis of intracavitary rare uterine lesions of uncertain classification?

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Background
Assessing the role of hysteroscopic taylored biopsy, perfomed by bipolar electrodes, to correctly diagnose rare uterine intracavitary lesions.

Methods
We performed office hysteroscopy in 6 patients, age ranging from 28 to 64 years, complaining abnormal uterine bleeding: an intrauterine compact lesion of uncertain classification with a large base was found in all patients. Taylored biopsies were performed by 5 Fr bipolar electrodes and the specimens were sent for hystological analysis.

Results
During office hysteroscopy, we performed taylored biopsies by 5 Fr bipolar electrodes in 6 patients with uterine lesions of uncertain classification. At hystological analysis, a uterine leiomyosarcoma was diagnosed in three of these patients; atypical polypoid adenoma (APA) in two patients and Perivascular Epithelioid Cell Neoplasm (PEComa) in one patient. Twenty-eight-years-old patient with APA diagnosis started progestin conservative treatment and resulted negative at subsequent hysteroscopic follow-ups. All the remaining patients underwent hysterectomy. Diagnosis obtained by taylored biopsy in outpatient setting, was confirmed in all cases.

Conclusions
At common imaging techniques, rare endometrial lesions are often misdiagnosed. Obtaining an adequate specimen of tissue, a taylored hysteroscopic biopsy allows to correctly diagnose a rare uterine lesion.

ES25-0161 - P*012
Best Selected Posters

Overtreatmet with hysteroscopy in asymptomatic postmenopausal women with endometrial thickening

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Background
To evaluate the diagnostic value of hysteroscopic biopsy in postmenopausal women with ultrasonographic endometrial thickness greater than 5 mm.
Quantify hysteroscopies performed to detect endometrial hyperplasia with atypia or endometrial carcinoma.

Methods
Retrospective observational study of 315 postmenopausal asymptomatic women with endometrial thickening greater than 5 mm who underwent hysteroscopy between March 2011 and March 2016

Results
3829 diagnostic hysteroscopy were performed in the study period, of which 315 were made due to endometrial thickening (≥5mm) without suspected polyp in asymptomatic postmenopausal women. Among these patients, there were 4 cases of endometrial hyperplasia with atypia and there were 8 cases of endometrial carcinoma, 12 in total (3.8%). These findings correspond with the data from the published literature and corroborates that endometrial thickening isolated in asymptomatic patients, should not be taken into account for the early diagnosis of endometrial carcinoma. The most frequent hysteroscopic findings in these patients were: 47% present endometrial polyp, atrophy less than 5%, myomas less than 5% and normal uterine cavity in about 32% of cases. Hysteroscopy sensitivity was between 75-86% and high specificity (> 99%).

Conclusions
It is not clear the cutoff for endometrial thickness seen using ultrasound in asymptomatic women. Choosing a grater cutoff point could reduce the number of hysteroscopies and improve the sensitivity of the test.

ES25-0168 - P*013
Best Selected Posters

Validation of hysteroscopy simulation in the surgical training curriculum

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Background
The primary objective of our study was to test the construct validity of the HystSim™ hysteroscopic simulator to determine whether simulation training can improve the acquisition of hysteroscopic skills regardless of the previous levels of experience of the participants. The secondary objective was to analyse the performance of a selected task, using specially designed scoring charts to help reduce the learning curve for both novices and experienced surgeons.

Methods
The teaching of hysteroscopic intervention has received only scant attention, focusing mainly on the development of physical models and box simulators. This encouraged our working group to search for a suitable hysteroscopic simulator module and to test its validation. We decided to use the HystSim™ hysteroscopic simulator, which is one of the few such simulators that has already completed a validation process, with high ratings for both realism and training capacity. As a testing tool for our study, we selected the myoma resection task. We analyzed the results using the multimetric score system suggested by HystSim™, allowing a more precise interpretation of the results.Between June 2014 and May 2015, our group collected data on 57 participants of minimally invasive surgical training courses at the Kiel School of Gynecological Endoscopy, Department of Gynecology and Obstetrics, University Hospitals Schleswig-Holstein, Campus Kiel. The novice group consisted of 42 medical students and residents with no prior experience in hysteroscopy, while the expert group consisted of 15 participants with more than 2 years of experience of advanced hysteroscopy operations.

Results
The overall results demonstrated that all participants attained significant improvements between their pre- and post-tests, independent of their previous levels of experience ($P< 0,002$). Those in the expert group demonstrated statistically significant, superior scores in the pre- and post-tests ($P=0.001$, $P=0.006$). With regard to visualization and ergonomics, the novices showed a better pre-test value than the experts; however, the experts were able to improve significantly during the post-test. These precise findings demonstrated that the multimetric scoring system achieved several important objectives, including clinical relevance, critical relevance, and training motivation.

Conclusions
All participants demonstrated improvements in their hysteroscopic skills, proving an adequate construct validation of the HystSim™. Using the multimetric scoring system enabled a more accurate analysis of the performance of the participants independent of their levels of experience which could be an important key for streamlining the learning curve. Future studies testing the predictive validation of the simulator and frequency of the training intervals are necessary before the introduction of the simulator into the standard surgical training curriculum.

ES25-0170 - P*014
Best Selected Posters

Which animal model in operative hysteroscopy? Bovine uterus as an excellent animal model of septate uterus

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Background
Experimental research on animal model is an essential prerequisite to surgery on humans. The pig is the animal model of choice in laparoscopic surgery, mostly because of pelvic similarities between sows and human female. However, because pig's uterus cannot be used to experiment hysteroscopic techniques, other animal model had to be found.

Although few studies have been published on "Olive baboon", there is no animal model highlighted as the reference in hysteroscopic experimentations.

Methods
Objective: To validate an animal model allowing "HYRA project's" experimentations. The primary aim of the "HYRA project" is to develop techniques in augmented reality and virtuality applicable to uterine malformations treatment in operative hysteroscopy.

Results
Bovine uterus is particularly adapted to operative hysteroscopy, for the following reasons:

- Dimensions of the uterine cavity: on average 40 x 40 x 20 mm
- Cervical seal easily obtained with McDonald cerclage procedure
- Excellent saline uterine distension
- A particular "*uterus bipartitus*" anatomy, which is coincident to septate human female uterus.

Diagnostic hysteroscopy followed by hysterosalpingography with 3D-TDM and 3D-MR imaging acquisitions have been performed.

Because hysteroscopy in bovine female revealed a "septate-like" uterine cavity, this animal model appeared particularly interesting in the development of augmented reality and virtuality techniques in operative hysteroscopy. More specifically in security margins measurement to prevent uterine perforations.

Furthermore, the accessibility of this animal model could allow reproducible medical training in operative hysteroscopy.

Conclusions
Our work allows us to discover bovine uterus as an excellent animal model of septate uterus, providing perspectives on experimental research and operative hysteroscopy teaching.

ES25-0212 - P*015
Best Selected Posters

Prosepctive analysis of indocyanine green sentinel lymph node mapping in robotic and laparoscopic: surgery preliminary experience

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Background
Sentinel lymphnode (SLN) mapping with Indocyanine Green (ICG) is the new frontier for the surgical staging of apparently early stage cervical (CC) and endometrial cancer (EC). The near-infrared technology, built in the Da Vinci Xi system and In the Karl Storz (NIR/ICG) laparoscopic system, provides an enhanced real-time imaging system that improves the advantages given by ICG.
We aimed to evaluate the accuracy and operative outcomes about robotic and laparoscopic SLN biopsy guided by cervical indocyanine green (ICG) injection, in patients with endometrial and cervical cancer

Methods
This prospective analysis was conducted between 36 not consecutive patients with diagnosis of endometrial (EC) or cervical cancer (CC) undergoing ICG SLN mapping at our Hospital from January 2014 to April 2016. All patients underwent cervical ICG injection (1 cm deep in the stroma at hours 3-9, with a total of 4 ml of ICG at concentration of 1,25 mg/ml). SLNs were located using the robotic camera (Firefly System) and laparoscopic camera (Karl Storz) and excised. Following surgery consisted in: SLN biopsy only, systematic pelvic (PLND) ± paraortic lymphadenectomy (PALND) associated with radical hysterectomy type A, B or C sec Querleu-Morrow and bilateral salpingo-oophorectomy.

Results
We collected 36 patients: 25 underwent robotic surgery (22 EC and 6 CC), 3 underwent singleport robotic surgery (3 EC) and 8 underwent laparoscopic surgery (7EC and 1 CC). Of 36 patients, 10 underwent only SLN biopsy, 20 underwent SLN mapping followed by PLND and 3 underwent SLN mapping followed by PLND and PALND; 3 patients didn't undergo lymphonodes mapping. Overall detection rate was: for robotic technique 85.7% - 24/28 - (70.8% bilateral and 29.2% unilateral); for laparoscopic technique, 75% - 6/8 - (66.7% bilateral and 33.3% unilateral). In 2 robotic patients we found SLN metasiasis: one micrometastasis and one lymph nodes with isolated tumor cells. The median number of removed SLNs, pelvic and para-aortic LNs was: 2 (range 0-6), 19 (range 0-37) and 16 (range 14-19), respectively We didn't find metastasis in PLN and PALN. The mean operative time was 209,97 minutes for robotic patients and 158.36 for laparoscopic, significantly lower in both patients undergoing SLN mapping only. No intra- or postoperative complications were noted.

Conclusions
Sentinel lymphnode mapping can play a significant role in lymph node assessment and staging in early-stage of EC and CC. In this preliminary experience Robotic and laparoscopic ICG SLN mapping have an excellent overall and bilateral detection rates. More cases are need to compare the two approaches.

ES25-0219 - P*016
Best Selected Posters

The impact of diagnostic procedure on the incidence of positive peritoneal cytology in patients with uterine cancer

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Background
The aim of our study was to analyze the incidence of positive peritoneal washings in patients diagnosed with different types of uterine cancer after either hysteroscopy (HSC) or dilatation and curettage (D&C).

Methods
A retrospective analysis of 246 patients who underwent either HSC (N = 155) or D&C (N = 91) and were diagnosed with uterine carcinoma at the University Medical Center Maribor between January 2008 and December 2014 was performed. The incidence of positive peritoneal cytology was evaluated in each group.

Results
The study included patients with endometrioid endometrial carcinoma (N = 208), non-endometrioid endometrial carcinoma (N = 16), atypical endometrial hyperplasia (N = 3) and uterine sarcoma (N = 15). There was no overall difference in the incidence of positive peritoneal washings after HSC or D&C (HSC = 12.3%; D&C = 13.2%; p = 0.832). No difference in histologic type (chi-square = 2.347; p = 0.125) or time between diagnosis and operation (t = 1.586; p = 0.114) was observed between the two groups. However, a higher percentage of poorly differentiated tumors was present in the D&C group (chi-square = 8.319; p = 0.016). Separately, a detailed analysis of stage I disease revealed significantly higher rates of positive peritoneal washings in the HSC group (HSC = 12.1%; D&C = 3.3%; p = 0.045). Among these patients, there was no difference between both groups considering histologic type (chi-square = 0.114; p = 0.990), tumor differentiation (chi-square = 2.850; p = 0.240) and time between diagnosis and operation (t = 1.089; p = 0.278), but a difference in myometrial invasion was noted (chi-square = 7.265; p = 0.026). In spite of the higher percentage of stage I tumors which invaded more than half of the myometrium in the HSC group, the depth of myometrial invasion was not the decisive factor for the higher rate of positive peritoneal washings in these patients (chi-square = 2.672; p = 0.263).

Conclusions
Although the diagnostic procedure did not influence the overall incidence of positive peritoneal washings, HSC was associated with a significantly higher rate of positive peritoneal cytology in stage I endometrial carcinoma compared to D&C. We observed a higher incidence of tumors invading more than half of the myometrium in the HSC group, but this does not explain the higher rate of positive peritoneal cytology since no association between the extent of myometrial invasion and peritoneal cytology was detected.

ES25-0232 - P*017
Best Selected Posters

Laparoscopic outcomes in women undergoing total hysterectomy

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Background
It is widely accepted today by the scientific community that laparoscopy can be considerated as the most safe and feasible surgical procedure for our patients. When we focus on hysterectomy, many studies suggest to use the abdominal hysterectomy just for few selected cases and to prefer the laparoscopic approach as first way. However it is very important to pay attention on the surgical risk factors and the main outcomes. Many patient factors might influence these outcomes and Body Mass Index (BMI) is undoubtly one of them.The aim of our study was to evaluate the impact of BMI on the main laparoscopic outcomes in women undergoing total hysterectomy.

Methods
40 patients who underwent total laparoscopic hysterectomy at the Ferrara Obstetrics and Gynaecology Unit in 2015 (Average age: 55,65 years old). We have included both benign and malign diseases. We have analyzed the main surgical outcomes: operative time, BMI, estimated blood loss (Haemoglobin level changes before and 2 hours after surgery), post-operative complications, hospital stay length, hospital readmission. The patients were divided in two BMI groups according to World Health Organization definition: normal weight (18.5-24.9) and obese (>30). The number of obese women (BMI>30) was 13, and non obese women (BMI<30): 27. The statistical analysis used was Fisher's exact test.

Results
There are no significant statistic differences between the two groups when we evaluate operative time, hospital stay length, hospital readmission, post-operative complications. No patient was readmitted for complication. We have observed a statistical significant difference related to haemoglobin level changes between the two groups. In the obese group 10 patients lost less than 1 g/dl haemoglobin and 3 patients ≥1g/dl haemoglobin. In the non obese group 11 patients lost <1 g/dl haemoglobin and 16 patients ≥1g/dl haemoglobin. This difference is statistically significant (p=0.0455).

Conclusions
Laparoscopic hysterectomy is a minimally invasive procedure, considered the gold standard in modern Gynaecology; however patients are at risk of potentially vascular complications. As far as we know only one study has specifically analyzed the use haemoglobin testing following total laparoscopic hysterectomy. According to our data, we can state that laparoscopic technique is a safe, feasible, and effective procedure also among obese patients. This procedure should be preferred rather than the abdominal approach.

ES25-0247 - P*018
Best Selected Posters

Fertility at 36 post operative months after laparoscopic surgery for endometriosis about 355 patients

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Background
Endometriosis is a multifactorial pathology implicated in infertility but this physiopathology is incompletly understood.

The main of this study is to determine after first surgery of endometriosis the spontaneous fertility or after Medically Assisted Procreation of infertile patients and to conclude prognostic factors of pregnancy.

Methods
355 infertiles patients in regional register of Auvergne, aged between 18 and 43, operated of endometriosis between februar 2004 and December 2012, are included. The pregnancy rate evaluated with 36 postoperative months or less than 36 months if there are pregnancy before.

Results
The actuarial overall pregnancy rate was 64.5% at 36 months postoperatively. The spontaneous pregnancy rate was 28.2% with a mean of 9.1 ± 8.2 months after surgery and 77% of spontaneous pregnancies were obtained at 12 months postoperatively. This rate is significantly higher when the age is less than 35 years ($p = 0.0383$), the duration of infertility is less than 24 months ($p = 0.0085$) and in the absence of tubal disease ($p = 0.0159$). Among non-pregnant patients spontaneously, 92% are supported by AMP with 50.8% of pregnancies. Predictive factors to get AMP pregnancy are age below 35 years and the time between surgery and the care AMP less than 12 months.

However, the severity of endometriosis has no influence on the spontaneous pregnancy rates or AMP pregnancy between minimal and mild endometriosis in one hand and middle and severe endometriosis secondly. The stage of endometriosis has no impact on postoperative fertility when the surgical treatment was complete. The orientation in AMP must be at least after one year of postoperative period and should be even faster in case of age beyond 35 years old.

Conclusions
The stage of endometriosis has no impact on postoperative fertility when the surgical treatment was complete. The orientation in Medically Assisted Procreation must be at least after one year of postoperative period and should be even faster in case of age beyond 35 years old.

ES25-0253 - P*019
Best Selected Posters

Tackle the challenging retained products of conception

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Background

Retained products of conception are treated with D&C in most of cases. Too many complications are associated with this “classical” management. We want to analyse the results of the hysteroscopic management of retained products of conception (retained trophoblastic tissue and placental polyp) and to describe our experience. We make a relationship between the ultrasound image, the hysteroscopy vision and the difficulty in the surgery.

Methods

We retrospectively reviewed the data of women with retained products of conception (RPC) after abortion, miscarriage or parturition. 46 patients with this entity were included in this study, we used the resectoscope for the evacuation under direct vision of the cavity. A second look hysteroscopy was performed 1 1/2 months later and there were no complications associated.

Results

A complete evacuation of the uterine cavity was achieved during a single procedure in 100% of cases. There were no complications during the surgical procedure. No late complications were noted in the second look hysteroscopy.

Conclusions

Due to that the persistence of RPC is usually focal, extracting them under direct vision seems to be a safe and effective alternative to “blind” extraction. This work shows that the extraction under direct vision of RPC is a safe, simple and a low complication rate alternative. There is a direct correlation between the ultrasound image and the hysteroscopic vision. With the ultrasound view we can know how difficult will be the surgery.

ES25-0266 - P*020
Best Selected Posters

iHysterectomy: Frugal by iPhone

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Background

This study aims to demonstrate the feasibility of a frugal approach to an endoscopic hysterectomy: the iHysterectomy.

Methods

An iPhone with Endoscope-I adaptor and a portable light source were used instead of a laparoscopic camera, video processor, monitor, and lightsource. A Vaginally Assisted NOTES Hysterectomy (VANH) was performed by Poor Man's NOTES technique using a self-constructed glove port and standard reusable instruments.

Results

Ten iHysterectomies were successfully performed by a single surgeon (Jan Baekelandt). No conversion to a laparoscopic tower, standard multi incision laparoscopy, or laparotomy was necessary. Mean operation time was 52 minutes (40-75); mean serum hemoglobin drop was 0.8 g/dl (0.2-2.1). There were no operative complications, and post-operative pain scores were low.

Conclusions

The iHysterectomy technique enables surgeons to perform a minimally invasive hysterectomy in a low resource setting without the need to invest in a laparoscopic tower. The investment required for endoscopic hardware is a fraction of that for conventional laparoscopy or robotic surgery. This is an IDEAL stage 1 study: iHysterectomy is a novel approach requiring further validation. This is the first report on the use of an iPhone to perform a hysterectomy or any other major operation.

ES25-0269 - P*021
Best Selected Posters

Caesarean scar defect: prevalence, performance of sonography and interobserver reproducibility

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Background
Caesarean scar defect is a recently describe entity. Rate of the defect is difficult to evaluate as it is often asymptomatic. Sonography is one of the diagnosis exams for caesarean scar defect. Inter-observer reproducibility hasn't been evaluated yet, such as performance of sonography.

Methods
A prospective evaluation of uterine caesarean scar was conducted in a randomized trial to evaluate interest of uterine double layer suture compared to single layer. Objective of this study was to evaluate performance of sonography compared to hysterosonography as a gold standard and to evaluate inter-observer reproducibility for sonographic evaluation. Endovaginal sonography was performed blind by two different sonographers 6 months after caesarean section. A hysterosonography was also performed the same day. Definition for caesarean scar defect was a depth more than 1.5mm.

Results
One hundred three consecutive women were included. Mean age was 30.22 years [IC95%: 29.15-31.29]. Mean parity was 1.36 [IC95% :1.20-1.52]. Mean caesarean term was 39.88 weeks [39.62-40.15]. Sixty six per cent of C-section were performed during labor and cervical dilatation was less than 3 for 22% of women, between 3 and 8 for 59% and more than 8 for 19%. Mean operative time was 38.8min [IC95%: 37.2-40.4].

A defect was visualised in hysterosonography in 40 women out of 95 (42.10%). Compared to hysterosonography, sonography has a sensitivity of 82% and a specificity of 80% for the diagnosis of caesarean scar defect. Interobserver reproducibility for sonography was good (kappa = 0.63).

Mean depth of the defect was not significantly different between observers (4.68mm [4.32-5.04] versus 4.53mm [4.08-4.98], p=0.52) such as mean width (2.69mm [2.18-3.21] versus 2.75mm [2.28-3.22], p=0.79). Only the mean residual myometrium was significantly different for observers (5.11mm [4.62-5.60] versus 5.62mm [5.13-6.11], p=0.03).

Conclusions
Caesarean scar defect is frequent at 6 months after C-section. Sonography is a good exam for the diagnosis of caesarean scar defect with both high sensitivity and specificity compared to hysterosonography. Interobserver reproducibility is good.

ES25-0280 - P*022
Best Selected Posters

Abdomial tuberculosis diagnosed with the aid of diagnostic laparoscopy, a case report

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Background
A 38-year-old woman,nulligravida diagnosed with primary sterility, came to the gynecological emergency department with lower abdominal pain referring to the left shoulder, and no vaginal bleeding. A transvaginal ultrasound showed a left ovarian cyst measuring 28x31mm(suspected mature teratoma),a morphologically normal right ovary with a structure suspected to be a sactosalpinx measuring 32x17mm, and 2-3 cm of free fluid in cul de sac.The primary radiologic diagnosis showed no signs of ovarian torsion or ectopic pregnancy. ß-hCG was 0.8 IU/L, inflammation markers (leukocytes, CRP) and Ca 125 were negative. The patient was admitted for symptomatic treatment and differential diagnosis.

Methods
The next day it was decided that a diagnostic laparoscopy would be performed due to the patient's persistent pain. Intraoperative findings: uterus and adnexa not visible due to complete obliteration of the cul de sac due to thick adhesions involving the sigmoid colon; entire peritoneum covered with white papillary structures resembling peritoneal carcinosis; and liver covered with adhesions similar to Fitz-Hugh-Curtis syndrome. Adhesiolysis was not possible due to the fragility and bleeding of the pelvic structures. The operation was completed with intraabdominal swabs and multiple peritoneal biopsies to rule out possible infections (mycobacterial, chlamydial, gonorrheal) or malignant etiology of the intraoperative finding. The patient was given an antibiotic treatment for the suspected infection: Cyprofloxacin plus Metronidazol.

Results
The peritoneal biopsies' pathological results indicated a mycobacterial infection, but there were no signs of malignancy. A cervical swab also came back positive for Mycobacterium tuberculosis. All other cultures taken were negative. The patient was referred to a specialized unit for infectious diseases, where she received further diagnostic imaging. The results of a chest X-ray, bronchoscopy, oesophagoscopy and colonoscopy were normal.There were unspecific mediastinal lymph nodes but no signs of active pulmonary tuberculosis on the CT thorax. After the diagnostic work-up the patient was diagnosed with genital/abdominal tuberculosis. She was subsequently put on isoniazid, rifampicin, pyrazinamid and ethambutol to last for six months. After 3 weeks of treatment the clinical condition of the Patient was greatly improved and her abdominal pain had ceased.

Conclusions
his is a case where the patient presented a common complaint– abdominal pain. The first mode of diagnosis revealed a small ovarian cyst, but it was the second modality of diagnostic laparoscopy which helped make the definitive diagnosis both through visualization and the possibility to biopsy the findings. This case report also shows that peritoneal tuberculosis can mimic peritoneal carcinosis, which can be very difficult to differentiate between. In this case the laparoscopy helped us make a very difficult diagnosis where the symptoms of the patient were unclear.

ES25-0288 - P*023
Best Selected Posters

Outcomes following surgery for deep infiltrating endometriosis

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Background
Our aim was to assess the outcomes for patients undergoing surgical treatment of stage three and four endometriosis at the tertiary endometriosis centre of Queen Alexandra Hospital, Portsmouth, UK between December 2014 and December 2015.

Methods
Patients were identified via the British Society for Gynaecological Endoscopy (BSGE) endometriosis database.

Medical records were obtained and a Microsoft Excel spreadsheet was populated with data taken from the patients' notes, electronic pathology records, electronic theatre reporting software and BSGE pelvic pain questionnaires. We looked at several variables including whether the operation was a primary or two stage procedure, use of gonadotrophin releasing hormone analogues pre-operatively, whether colorectal or urological surgeons were involved, duration of stay, whether the surgery was laparoscopic or open and what their surgery included.

Details regarding intra-operative findings and surgical approach were taken from operative notes and information regarding post-operative complications was identified from the medical records.

Inclusion criteria was that the patient must have undergone para-rectal space dissection as part of stage three and four endometriosis treatment. 27 cases satisfied the inclusion criteria.

If questionnaire data were incomplete, those data could not be included in the analysis regarding the long term outcomes based on the six month follow up BSGE questionnaire. Details regarding the procedure, histology and complications was still obtained from the medical records.

Results
70% of patients underwent primary surgery and of these 53% were day case procedures. 21% required one night, 16% two nights and 10% four nights stay in hospital.

30% of patients had a two stage operation, 25% were day cases, 50% stayed for one night and 25% required three nights stay in hospital.

73% of patients reported improvement in symptoms of premenstrual pain.

69% of patients reported an overall reduction in pelvic pain scores.

77% reported a reduction in their menstrual pain scores.

71% reported improvement in symptoms of dyspareunia.

1 patient had an early surgical complication of a bowel injury that was identified and repaired at the time of surgery.

Two patients developed late complications in the form of haematomas. There were no other complications experienced by this cohort of patients despite the severe and invasive nature of their disease.

Conclusions
Overall we have observed an excellent and encouraging response to surgical management of stage three and four endometriosis at Queen Alexandra Hospital, Portsmouth, with patients reporting improved quality of life scores and reduction of pain symptoms as reflected by their follow up questionnaire responses.

We have also observed a very low complication rate in the face of highly complex surgical cases, requiring extensive treatment of deep infiltrating endometriosis, necessitating para-rectal space dissection.

ES25-0305 - P*024
Best Selected Posters

A prospective evaluation of a simplified laparoscopic intra-peritoneal colposuspension

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Background
Burch described the open intra-peritoneal coplosuspension for the treatment of urinary stress incontinence and of anterior vaginal wall prolapse.This was one of the first urogynaecological procedures that later performed laparoscopicaly.Reviews of randomised control trials have shown that there are no differences between laparoscopic, open colposuspension and sub urethral slings procedures in terms of improvement of stress urinary incontinence.In addition, the colposuspension offers the advantage of improvement of the anterior vaginal wall. However all the studies have shown that laparoscopic colposuspension takes longer to perform. As emerging evidence is alarming for the use of non absorbable synthetic grafts - used in sub urethral slings - a simplified laparoscopic colposuspension with shorter operative times could be a safer alternative to the sling procedures. At Royal Surrey County Hospital has been implemented a simplified laparoscopic colposuspension.This study aimed to evaluate the new simplified technique in terms of degree of reduction of anterior vaginal wall prolapse, operative time, hospital's stay, complication rates and improvement of incontinence symptoms and quality of life.

Methods
Patients that participated in the study had a thorough pre-operative assessment (clinical examination, pelvic ultrasound and urodynamic studies). Patients with irritable bladder, pelvic masses and serious respiratory morbidities were excluded.Data were collected during an examination noting the presence of symptoms and of vaginal prolapse before and six months after the 'simplified' laparoscopic colposuspension.In addition, a relevant and validated quality of life questionnaire (the P-Qol) was filled from the patients prior and six months after the 'simplified' laparoscopic colposuspension.

Results
The total number of the participating patients was 29.The mean age was 54 years.The mean operating time was 31 minutes.The improvement in anterior wall prolapse six months after the 'simplified' laparoscopic colposuspension was remarkable and reached statistical significance. The 86,2% of the participating patients had anterior wall prolapse before the procedure whereas only 3,4% presented with anterior wall prolapse six months after the 'simplified' laparoscopic colposuspension ($p<0,05$).Statistically significant ($p=0,019$) was the improvement in stress incontinence (72,4% before the procedure versus 20,6% who reported stress symptoms six months after the procedure).Comparison of the question's scores in the P-Qol questionnaire, before with six months after the procedure showed that all the questions scores were improved. In the two thirds of the P-Qol question's the improvement reached statistical significance. The mean days of catheterization was 2,41 and the mean day of return to normal activities after the procedure was 20,4.The only intraoperative complication was one bladder injury (repaired) and there was none post-operative complications.

Conclusions
The 'simplified' laparoscopic colposuspension reduces the anterior vaginal wall prolapse and in the mean time cures the symptoms of stress incontinence.This surgical modification provides within safety and very low morbidity, eficient operating time, recovery and better patient's quality of life.

ES25-0316 - P*025
Best Selected Posters

The incidence of uterine leiomyosarcoma in the Netherlands from 2000-2015: a nationwide retrospective study

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Background

Although uterine sarcomas are rare, the FDA has calculated a 1/350 risk to encounter a uterine sarcoma in women undergoing a hysterectomy for benign indications. Due to this high risk the FDA now warns against the use of power morcellators to prevent morcellation of these unrecognised sarcomas. However, the calculation made by the FDA has been criticized and recent studies have demonstrated an incidence varying from 1:70 to 1:2000 or even less. Unfortunately, these recent studies are subject to bias, since they mostly originate from single centres. Establishing a true incidence is therefore complicated. The aim of our study is to assess the incidence of ULMS in the Netherlands, and therefore to exclude bias from single centre studies and studies from third line referral centres.

Methods

Approval for this study was granted by the Medical Ethics Committee of all participating hospitals. A retrospective case series was obtained from all ULMS between January 2000 and September 2015 in The Netherlands. Cases were identified by the nationwide network and registry of histo- and cytopathology in the Netherlands (PALGA). Basic patient characteristics, relevant medical history, clinical presentation and the preoperative diagnostics were retrieved from medical charts. An independent student-t test and a Pearson Chi square test were used when applicable. SPSS 20 was used to analyse all data.

Results

These are preliminary data, as the study is still being finalised at this moment. Therefore, the results may change.

A total of 737 cases were identified, and 101 cases have been analysed until now. 72 cases were original. The mean age was 56 years (36-86 years), and BMI 27 kg/m^2 (18-54 kg/m^2). The majority of patients (62%) was postmenopausal. Abnormal uterine bleeding (AUB) and abdominal pain constituted 69% of the primary symptoms. Mean uterine size was 18 weeks gestational age (8-35 weeks) and myoma size 10cm (3-20cm). Myoma growth was reported in 7 patients (10%). The overall risk to encounter an unexpected ULMS after surgery for presumed benign disease in this cohort was 1:340. (*disclaimer: based on preliminary results after analysing 14% of data, therefore this number may change considerably)*

Conclusions

The present study has evaluated all ULMS in The Netherlands from 2000-2015. It contains data from all types of hospitals. The found incidence of 1:340 is in line with the FDA statement. This may be due to better conservative treatment, leading to a selection of women that undergo surgery who are at risk for ULMS due to persistent complaints or larger fibroids. More nationwide studies will better reflect the actual risk of encountering ULMS during surgery. Ultimately, their combined data will help the gynecologists and patient with their informed decision.

ES25-0336 - P*026
Best Selected Posters

Laparoscopic lymphadenectomy in Cliniques Universitaires Saint Luc from 2009 to 2015: a retrospective study

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Background
We proposed to present a monocentric review of laparoscopic lymphadenectomies for gynecologic malignancies.

Methods
This is a retrospective study including 94 patients who underwent laparoscopic lymphadenectomy for gynecologic malignancies (cervical, endometrial, ovarian, vulvar and sarcoma) from the first January 2009 to the 31th December 2015.
The goals of the study were to described different procedure realized, to assess the rate of surgery complications, to evaluate the learning curve of pelvic and para-aortic laparoscopic lymphadenectomy and to determine the predictive value of sentinel lymph node biopsy in cervical and endometrial neoplasia. We also evaluated the overall survival and disease free survival for each malignancies. We also evaluated the potential relationship between obesity (Body mass index>30) and the quality of para-aortic procedure.
Patients were classified in three groups regarding the procedure performed.
- Group one: Early cervical cancer: Laparoscopic radical hysterectomy + pelvic lymphadenectomy (+/- sentinel lymph node) (n=23)
- Group two: Adanced stage cervical cancer: Para-aortic lymphadenectomy performed trans-peritonealy (n=17)
- Group three: Other cancer (ovarian, sarcoma, endometrial): Simple hysterectomy + pelvic +/- para aortic lymphadenectomy +/- omentectomy (n=54)

Results
The mean number of pelvic lymph nodes retrieved was respectively 23,28 and 20 in the three groups.
The mean number of para-aortic lymph nodes retrieved was respectively 4,17 and 10 in the three groups.
The rate of intra operative complications complications was respectively 4%, 0% and 2% in the three groups.
The rate of postoperative complications was respectively 22%, 6% and 9% in the three groups.
The rate of local recurrence was respectively 13%, 17% and 20% in the three groups.
The learning curve was longer for the para-aortic lymphadenectomy than for the pelvic lymphadenectomy.
The positive and negative predictive values of the sentinel lymph node biopsy were respectively 66% and 90%.
There is no relationship between obesity and the quality of para-aortic procedure.

Conclusions
Laparoscopy is a usefull tool in gynecologic oncology surgery.
Number of node, peroperative and postoperative complication and survival rate are in accordance with the data from the litterature.
Para-aortic procedure has longer learning curve but obesity has no influence on its quality.
The positive and negative predictive values of the sentinel lymph node biopsy in cervical and endometrial malignancies were respectively 66% and 90%

ES25-0344 - P*027
Best Selected Posters

Surgical management with CO2 laser of bladder endometriosis: about 177 cases in a single institution

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Background
To assess the efficacy, safety and long-term outcome of laparoscopic removal of bladder endometriosis using CO2 laser.

Methods
Hundred seventy seven consecutive patients that underwent laparscopic removal of bladder endometriosis in a single centre (Cliniques universitaires St-Luc) from January 1998 to December 2013.The medical files of all patients with bladder endometriosis were retrospectively reviewed. Efficacy, safety and long-term outcome of laparoscopic removal of bladder endometriosis. Fertilty consideration were also reviewed.

Results
177 patients with bladder endometriosis underwent surgery in the study period. Mean age was 32.1 years. 70% of patients were nulliparous. Of the ones who had children, 35% had a history of ceasarian section. 54% of the patients had fertility problems. 39.4% had urinary symptoms. 50% suffered of endometriosis on other locations.

MRI was the best preoperative exam to detect bladder endometriosis. When the lesion was ≥2cm sensiblity was 92.5%. When the lesion was <2 cm sensiblity was 39.1%

Laparoscopy with CO2 laser was used in all the patients. In 37.8% of the cases the bladder was opened and then sutured. 144/177 (79.1%) of the removed endometriotic lesions showed infiltration of the detrusor muscle. 7/177 (3.95%) showed an infiltration of the bladder mucosa. Vesical complication rate was very low at 4,4 %. Median follow-up after surgery was 47 months, 4,2% patients presented a reccurence of bladder endometriosis and 18 % of patients experimented reccurence of any endometriosis. Fertily rate in these period was 55%, without differences between patients with isolated blader endometriosis and patients with other endometriotic lesion associated.

Conclusions
This is the largest serie of laparoscopic treatment of bladder endometriosis, using the Co2 laser. MRI is the best pre-operative exam altough it's sensibility is depending on the size of the endometriotic lesion. Post op complications rate was low and fertility restults was excellent for an endometriotic population.

Laparoscopic removal of those lesions is safe and effective. Risk of recurrence is lower than for other types and locations of endometriosis.

Partial removal of the baldder with opening of the bladder cavity was only necessary in 39% of cases. We hypothysis that the precise dissection possible with the CO2 laser and the ablative mode allowed us to avoid opening of the bladder in a majority of cases.

ES25-0349 - P*028
Best Selected Posters

Management of deep endometriosis with colorectal involvement: 5 years experience

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Background
The aim of our study was to report the outcomes of different surgical techniques in the laparoscopic management of patients with deep infiltrating endometriosis with colorectal involvement.

Methods
We performed a retrospective analysis of all cases of deep endometriosis with colorectal involvement submitted to laparoscopic surgery between June 2009 and April 2016 in our department. All patients submitted to bowel surgery for deep endometriosis (either superficial parietal shaving of the bowel wall, or discoid resection or segmental resection, depending on the extension of the intestinal involvement) were included. Preoperative symptoms, intraoperative findings, intra- and postoperative complications and symptoms in the follow-up period were analyzed. Statistical analysis: software SPSS V 20 (t-student); $p<0.05$ was considered statistically significant.

Results
From the 85 women included in the analysis, 64 (75.3%) had a superficial parietal shaving of the bowel wall, 16 (18.8%) underwent a discoid resection and 5 (5.9%) underwent a segmental colorectal resection. The presence of deep endometriosis was confirmed in all specimens. In the parietal shaving group there was one case of superficial rectal perforation diagnosed and treated intra-operatively and one case of bowel obstruction due to adhesive peritonitis at the 14th post-operative day that needed re-intervention with right hemicolectomy. There were two cases of pain recurrence requiring a second surgery after three years, in the group of superficial parietal shaving of the bowel wall. The average time of follow-up was 11 months (1-39). At the last follow-up evaluation we registered a improvement of all the endometriosis pain symptoms (assessed on a 0 to 10 points scale) regardless of the type of surgery performed (dysmenorrhea $p=0.001$; dyspareunia $p=0.01$; chronic pelvic pain $p=0.03$; dysuria $p=0.05$ and dyschezia $p=0.01$).

Conclusions
Laparoscopic colorectal surgery in deep infiltrating endometriosis is safe and feasible, providing a durable symptomatic control and a low reoperation rate, when performed by an experienced team.

ES25-0365 - P*029
Best Selected Posters

Total laparoscopic hysterectomy: a single center experience of 412 cases

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Background
Hysterectomy is the most frequently used non-obstetric gynaecologic surgical procedure and may be performed either by vaginal approach, laparotomy or laparoscopy. Guidelines recommend a minimally invasive approach whenever feasible. One important factor limiting adoption of laparoscopy is the need for advanced surgical skills. The aims of this study were to describe our experience performing total laparoscopic hysterectomy (TLH) and to evaluate the complication rates.

Methods
We conducted a retrospective observational study of all TLH performed in our department, by the same surgical team, between April 2009 and April 2016 (n=412). Medical records were reviewed for patient characteristics (age, BMI, gynaecological, obstetric, medical and surgical histories), surgical indication, operating time, uterine weight, post-operative haemoglobin variation, length of hospital stay and intra and postoperative complications. Descriptive statistical analysis was carried out using SPSS ®. Between-group differences were analysed using independent samples T-test and compare means function. $p<0.05$ was considered statistically significant.

Results
Average age was 49 ±8.9 years and 24.4% were postmenopausal. Fourteen percent were nulliparous, 47% of women had BMI >25 Kg/m^2 and 46.4% had previous abdominopelvic surgery. Mean operating time (+SD) was 77.5±30.8 minutes. Bipolar energy was used in 91,6% of the patients and an epigastric trocar was placed in 14.2%. Average uterine weight was 242±139.4 g and average hospital stay was 1.7±1 days. Mean postoperative haemoglobin variation was 1.3±0.7g/dL. l. No significant differences in haemoglobin variation were found among obese patients (BMI>25 Kg/m^2) when compared to women with normal BMI (1.6 ± 0,4 g/dl vs. 1.4 ± 0,1 g/dl; $p<0.05$) or among patients with prior pelvic surgeries when compared to women with none (1.7 ± 0.3 g/dl vs 1.4 ± 0.5 g/dl; $p<0.05$). The major and minor perioperative complication rates were 1% and 9.4%, respectively. Six months after surgery 5.8% had de novo minor complications, most commonly granulation tissue of vaginal cuff (14/23). Twelve months after surgery only 1.7% had de novo minor complications, most commonly pelvic organ prolapse (3/7) and granulation tissue of vaginal cuff (2/7).

Conclusions
Our series demonstrates that, in experienced hands, TLH is a safe procedure with low complications rates, regardless of patient BMI and surgical history.

ES25-0369 - P*030
Best Selected Posters

Endometriosis-related pneumothorax: a case report and review of literature

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Background
As endometriosis received more attention in the last years, related diseases need evaluation too. Endometriosis-related pneumothorax, either catamenial or non-catamenial, remains a misdiagnosed and poorly understood disease.
Objective was to evaluate the difficulty of a pathological diagnosis of endometriosis in endometriosis-related pneumothorax.

Methods
A combination of a case report and literature search about thoracic endometriosis using Pubmed and the following MeSH terms: ‘thoracic endometriosis’, ‘pneumothorax, ‘pathology’, ‘estrogen receptor’ and ‘progesterone receptor’.

Results
A 26-year-old woman operated for a severe form of endometriosis suffered one day postoperatively from severe abdominal pain and fever; a CT scan was performed revealing a pneumothorax. Because conservative treatment failed, a video-assisted thoracoscopic surgery (VATS) was performed and multiple endometriotic like lesions were found. Basic histopathologic examination of the biopsies taken did not reveal any endometriosis, but with additional tests positive staining of estrogen and progesterone receptors were found, suggestive for endometriosis.

Of 101 articles found, 5 were considered relevant to our case, describing difficulties on histologic confirmation and failure of basic pathology exam to reveal endometriosis in 30% of the cases. Also the importance of immunohistochemical analysis is described as endometrial tissue is only found in the minority of thoracic samples.

Conclusions
In all cases with women of reproductive age suspected of endometriosis with a (recurrent) pneumothorax, additional staining for estrogen and progesterone receptors should be considered.

ES25-0373 - P*031
Best Selected Posters

Effect of transvaginal hydrolaparoscopy ovarian drilling on ovarian stromal bloodflow indices using three- dimensional power doppler in patients with PCOS

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Background
Polycystic ovarian syndrome (PCOS) is the most common endocrine disorder affecting 5-10% of women of reproductive age. The first line treatment for ovulation induction (OI) in PCOS patients is clomiphene citrate. In patients with clomiphene citrate (CC)-resistant PCOS ovarian drilling is regarded as a less invasive alternative, currently recommended by the second ESHRE/ASRM PCOS consensus workshop as a second- line intervention. A new approach for ovarian drilling using transvaginal hydrolaparoscopy (THL) has been introduced and it has been showed to be safe and feasible alternative procedure. The aim of this study was to assess the effect of ovarian drilling performed with transvaginal hydrolaparoscopy on ovarian volume and on ovarian stromal blood flow, by using three-dimensional (3D) power doppler ultrasonography in women affected by PCOS CC-resistant.

Methods
Prospective study on 123 PCOS patients CC-resistant patients who underwent THL ovarian drilling. The control group comprised 150 fertile women who were attending an outpatient clinic for contraception. Each participant underwent 3D ultrasound and power doppler to measure vascularization index (VI), flow index (FI), vascularization flow index (VFI) and to evaluate the ovarian volume (OV) before the procedure on the early follicular phase of the menstrual cycle and repeated in the early follicular phase of the first postoperative cycle six month follow-up.

Results
Three-dimensional power doppler VI, VFI and FI and the OV were found to be significantly higher in the PCOS group compared with the control group. In the PCOS group after THL ovarian drilling the power doppler flow index and the OV were significantly reduced compared to pre-operative flow index and OV (VI 2.50 ± 0.72 vs 4.81 ± 1.22; VFI: 1.10 ± 0.37 vs 2.16 ± 0.58; FI: 32.05 ± 2.86 vs 35.37 ± 3.18) ; OV (7.85 cm^3 ± 1.69 vs 11.72 cm^3± 1.59).

Conclusions
Studies on the 3D ultrasound features of PCOS have clearly demonstrated the intrinsic characteristics of a polycystic ovary confirming larger ovarian volume. Moreover in PCOS patients also vascularization indices are altered: 3D power doppler indices of the ovarian stroma is significantly higher in women with PCOS than in normal fertile women. Our data showed that THL ovarian drilling decreased the ovarian stroma flow indices and ovarian volume. The surgical procedure may be beneficial both to ovarian volume and to intraovarian stromal flow in patients with PCOS.

ES25-0405 - P*032
Best Selected Posters

Office treatment of didelphys uterus and obstructed hemi-vagina with renal genesis: presentation and management of four cases of Herlyn-Werner-Wunderlich Syndrome

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Background
Purpose of this study is to describe clinical presentations, diagnostic process and office treatment of didelphys uterus and obstructed hemivagina with ipsilateral renal agenesis (also known as Herlyn Werner Wunderlich syndrome), and to suggest a proper diagnostic and therapeutic management based on our office experience

Methods
Four cases of Herlyn Werner Wunderlich Syndrome treated in office hysteroscopy. **Case 1 and 2**: Two sisters, not twins, aged 26 and 21 years, both with dysmenorrhea, dyspareunia, vaginal discharge, methrorragia and pelvic pain were diagnosed for didelphys uterus and obstructed hemi-vagina after bi-dimensional (2D), three-dimensional (3D) transvaginal sonography (TV-US), and office hysteroscopy (OH). Transabdominal sonography (TA-US) and magnetic resonance (MR) confirmed renal agenesis ipsilateral to obstructed hemi-vagina. Diagnosis of Herlyn Werner Wunderlich was settled down. Malformation in one patient was specular to the sister. OH was diagnostic and therapeutic in both cases. **CASE 3:** 12 years, virgo, with acute abdominopelvic pain and cryptomenorrhea. She underwent 2D and 3D transabdominal and transrectal sonography to get a diagnosis of didelphys uterus. Bimanual palpation and hysteroscopy revealed a vaginal septum occluding one hemi-vagina. MR revealed renal agenesis. Vaginal malformation was removed by office hysteroscopy. **CASE 4:** 16 years old young woman with dysmenorrhea, methrorragia and pelvic pain. Bimanual palpation, TA and 2D/3D TV sonography were performed. A didelphys uterus and a vaginal septum occluding one hemi-vagina was revealed and renal agenesis were suspected. MR confirmed Mullerian duct anomalies and malformations. Office hysteroscopy allowed treatment of vaginal malformation. Treatment consisted in office operative vaginoscopy: 1) opening of vaginal recess and drainage of hoematocolpos when present, 2) visualization of both external uterine os, 3) removal of abundant vaginal by using Twizzle bipolar electrode and 4) superficial coagulation of the vaginal wall to retract the mucosa by using Spring bipolar electrode. One month later the Office procedure the patients underwent follow-up with removal of residual vaginal exceeding tissue, vaginoscopically. The vagina appears larger than usual, but within normal ranges. In Case 2, hysteroscopic examination has been performed with laparoscopic control that revealed the progression of the hysteroscope through the hemivagina till the external iliac vessels, via a narrow canal. It suggest that the vaginal malformation consists in an ureteral recess.

Results
All patients were treated in an office setting, with minimal discomfort. In cases 1, one of the sisters become pregnant 7 years later in the heme-uterus ipsilateral to malformation; in case 2 and all the other complete relief of symptoms was reached. Subsequent follow up, settled down with vaginal-hysteroscopy and 2D/3D sonography was optimal.

Conclusions
Conservative treatment of Herlyn Werner Wunderlich syndrome, performed in an office setting by expert hysteroscopists, seems to be the best management, according to our experience. Physiologic pregnancy is possible even in the hemi-uterus ipsilateral to malformation

ES25-0427 - P*033
Best Selected Posters

MRI ENZIAN classification of deep infiltrating endometriosis as part of preoperative assessment: experience of newly established endometriosis centre

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Background

Endometriosis is a benign gynaecological pathology that can cause chronic pelvic pain, dysmenorrhea and dyspareunia, which can be debilitating in some women. The definitive diagnosis is usually established following Laparoscopic visualisation of endometriotic lesions and in some cases diagnosis is confirmed histologically. One of the challenges is the accurate diagnosis of severe endometriosis that is associated with the presence of deep infiltrating endometriosis (DIE). This condition is complex and difficult to manage and is associated with high surgical risks; hence preoperative diagnosis allows planning and tailored management plan depending on the main presenting symptom and fertility wishes. Preoperative assessment also allows the clinician to provide patients with better risk assessment and counseling.

Methods

This is a prospective, observational, study at Luton & Dunstable University Hospital endometriosis centre, in which women with suspected DIE had an MRI as part of their investigation prior to Laparoscopic surgery. MRI was organised for a selected group of women in total 22, based on the clinical examination and severity of symptoms. The age ranged between 17 – 52 years of age (mean 32.8 years, SD 9.7 years).

Results

The correlation between MRI ENZIAN classification and surgical finding was statistically significant P 0.01. The correlation between surgical and MRI ENZIAN score for lesions in recto-vaginal space was 15 out of 22 cases (68%) and for utero-sacral ligaments 18/22 ((81%), but less sensitive in detection of recto- sigmoid lesion. Comparing 1st year experience with 2nd year showed better detection rate with developing experience.

Conclusions

Our initial experience shows that MRI has an important role in the diagnosis of DIE and in establishing the extent of the disease prior to surgery. The expertise of the Radiologist is paramount in establishing accurate assessment. We had improved our MRI assessment by using MRI ENZIAN classification achieving false negative results of (4%) of rDIE in any location.

ES25-0434 - P*034
Best Selected Posters

Diagnostic accuracy comparison between preoperative imaging study and sentinel lymph node biopsy in the detection of endometrial and cervical cancer regional lymph node metastasis

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Background
Endometrial and cervical cancer metastasize mainly lymphatic pathway. Lymph node status is the most important prognostic factor. If lymph node metastases are present at the time of primary surgery, 5-year survival drops from 85% to 50%. More than 90% of the removed lymph nodes are free of metastatic disease. Patients could be preserved from potential morbidity. Sentinel lymph node biopsy (SLNB) concept might be applicable in endometrial and cervical cancer.

Methods
Performed a retrospective review of patients with cervical cancer and endometrial cancer who diagnosed and treated at a single institute (Asan Medical Center, Seoul, Korea). All cases underwent preoperative PET/CT or MRI followed by definitive robotic surgical therapy including SLNB with Indocyanine green (ICG) fluorescence detection.

Results
The 43 patients underwent intraoperative sentinel nodes mapping. The age range of the patients were 29 – 73 years and the mean age was 43.8 years. Deposition of ICG into at least one lymph node was observed in 100% of studied cases. Sentinel node detection and frozen biopsy were performed on all 43 subjects. On permanent pathology, 30% (13/43) of studied women had positive lymph node metastasis and 69% (9/13) of them had positive metastasis in SLN frozen biopsy. Most common detected lymph metastasis locations in SLNB were obturator area (70%). And 63% obturator lymph node metastasis was found in all lymph node metastasis. Tumor size was not related with SLNB positive. Sensitivity, specificity, positive predictive value and negative predictive value were evaluated among preoperative PET/CT, preoperative MRI and sentinel lymph node frozen biopsy. In three variables(PET/CT, MRI, SLNB), Overall detection sensitivity were 100%,50%,100%. Specificity were 83%, 82%,88%.Positive predictive value were 100% ,50%,100%. Negative predictive value were 83%,90%,100%. False positive rate were 17%, 18%, 12%. False negative rate was 0%, 50%, 0%.

Conclusions
Individualized treatment to reduce therapy-associated morbidity is an important consideration in the surgical treatment. SLNB has gained more acceptance and may offer an alternative to complete pelvic lymphadenectomy in the future.

ES25-0435 - P*035
Best Selected Posters

Laparoscopic versus open surgery in the treatment of apparently early stage epithelial ovarian cancer: Case-control and case-matched study of Korean Gynecologic Oncology Group

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Background
The efficacy and safety of laparoscopic surgery in the treatment of apparently early stage epithelial ovarian cancer is controversial. The aim of this study was to evaluate the long-term survival outcomes, surgical morbidity, and mortality of laparoscopic surgery compared with open surgery in apparently early stage epithelial ovarian cancer.

Methods
Case-control population comprised 1342 patients who underwent laparoscopic surgery (n=319) or open surgery (n=1023) for apparently early stage epithelial ovarian cancer from 12 tertiary hospitals in Korea. Propensity score matching was performed using preoperative factors related to the selection of surgery mode, and case-matched population comprised 296 patients in each surgery groups. Survival analysis was performed using the Kaplan-Meier method and Log-rank test and surgical morbidity and mortality was compared.

Results
In case-control population, the frequency of complete staging operation was 83.4% and 81.4% for laparoscopic and open surgery groups, respectively (P = 0.428). The 5-year recurrence free survival (82% versus 83%, P=0.814) and overall survival (91% versus 93%, P=0.387) did not differ between laparoscopic and open surgery groups. The frequency of major postoperative morbidity was 2.8% and 7.0% for laparoscopic and open surgery groups, respectively (P=0.006). Five patients in open surgery group required reoperation due to complication. No one in each surgery groups had postoperative mortality. In case-matched population, the 5-year recurrence free survival (82% versus 86%, P=0.456) and disease-specific survival (93% versus 92%, P=0.420) did not differ between laparoscopic and open surgery groups.

Conclusions
Laparoscopic surgery had comparable survival outcomes and was more favorable in surgical morbidity compared to open surgery in apparently early stage epithelial ovarian cancer.

ES25-0452 - P*036
Best Selected Posters

Key factors and signaling pathways involved in the reduction of uterine fibroid volume after ulipristal acetate treatment

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Background

Ulipristal acetate (UPA), a selective progesterone receptor (PR) modulator, is clinically proven to reduce uterine myoma volume. In vitro studies have shown that UPA: (i) controls PR expression; (ii) recruits nuclear cofactors; (iii) represses Bcl-2 expression; and (iv) may impair Akt signaling. However, the relevance of this in vivo is not yet known. Furthermore, signaling pathways modulated by UPA are poorly understood. This study aims to establish the role of these factors identified in vitro, and characterize signaling pathways modulated in uterine myomas treated with UPA.

Methods

PRs, including PR-A and PR-B isoforms, nuclear cofactors NCoR1 and SCR1, Bcl-2, Akt and p-Akt were analyzed by immunohistochemistry (IHC) on tissue microarrays containing 299 paraffin-embedded myoma samples from 59 patients. Subjects were divided into 1 control group of untreated patients (n=17), and 3 regimens of UPA treatment: (1) 5 mg/d UPA for 12 weeks (n=14); (2) 10 mg/d UPA for 12 weeks (n=13); and (3) 10 mg/d UPA for 2 to 4 cycles of 12 weeks (n=19). To investigate signaling pathways, 5 untreated uterine myomas were compared to 15 UPA-treated myomas divided into 3 groups: (i) UPA treatment for 3 months with volume reduction >25% (responsive) [n=5]; (ii) UPA treatment for at least 6 months with volume reduction >25% (n=5); and (iii) UPA treatment with no volume reduction (nonresponsive) (n=5). Apoptosis and extracellular matrix (ECM) pathways were analyzed by targeting 176 genes of interest using PCR arrays with TaqMan probes. Results were further confirmed on larger numbers of samples.

Results

IHC of the presumed key factors showed no difference in expression for PR, PR-A, PR-B, NCoR1, SRC1, Bcl-2, Akt or p-Akt between the untreated and 3 UPA-treated groups. Concerning apoptosis-related genes, although there was no statistically significant difference between the groups, 2 apoptosis inhibitors (BIRC3 and BIRC5) showed systematically lower expression in UPA-responsive myomas, and higher expression in UPA-nonresponsive myomas, than in the untreated group. Regarding ECM-related genes, integrins β1 and β4 exhibited significantly lower expression in UPA-treated myomas than in controls, regardless of the response to treatment.

Conclusions

Despite in vitro studies suggesting the contrary, in vivo UPA treatment does not repress PR, Bcl-2 or Akt signaling, nor does it alter the SRC1/NCoR1 ratio. The clinical response to UPA treatment appears to be associated with reduced expression of apoptosis inhibitors. This underlines the proapoptotic properties of UPA in vivo (previously reported), and also identifies a mechanism of resistance in UPA-nonresponsive myomas. Observed repression of 2 β-subunits of integrins implies that UPA impairs the capacity of cells to interact with the ECM, regardless of the clinical regression of tumors. We suggest that this either reflects changes in the nature of ECM components under UPA treatment, or indicates that UPA mediates loss of integrin signaling.

ES25-0453 - P*037
Best Selected Posters

Successful laparoscopical removal of 4400g weight uterus - an achievement worthy of the Guinness record?

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Background
Laparoscopy is example of minimal invasive surgery. Many doctors say that it has a great limitation.

Methods
Removing huge uterus of 4400 g weight laparoscopically by using 4 trocars and power morcellation .

Results
52 years patient was admitted to the hospital due heavy bleeding from vagina. Gynecological and ultrasound examination revealed a huge uterus with more than 20 myomas with size up to 10 cm. Fundus of the uterus was just below the xiphoid process. Hb level was 69 mg/ml. Emergency curettage was performed. Bleeding stopped. Blood transfusion of 3 units blood was performed.

Patient was admitted to the hospital 2 weeks later for surgery. Hb level was 111 mg/ml. Decision was made to perform laparoscopy and, if it is possible, to perform subtotal hysterectomy. Veress needle was inserted at the umbilical point and 10 mm trocar inserted at the umbilicus. The 10 mm trocar for optic was inserted at the middle line just below the xiphoid process. Two additional trocars at the umbilical level in the left and right sides were inserted for manipulators.

Uterus took almost all abdominal cavity. Uterine and ovarian vessels were coagulated and dissected by bipolar coagulation. All work was done in the narrow space in the parametrium with two instruments: one manipulator in middle umbilical point and other in right and left sides respectively. Uterus was cut from the cervix. Morcellation was performed with two engines in rotation.

Total operation time was 5 hours and 35 minutes, of which morcelation lasted for 4 hours. We changed 2 blunt knifes during this operation.

Uterus weight was 4400 grams. Hb changes were from 111 mg/ml to 103 mg/ml. On the next day, 18 hours after surgery, patient in good condition was discharged from the hospital.

Conclusions
It is possible to remove huge uterus safely for the patient with very short postoperative stay at the hospital. This achievement can pretend to unrecognized Guinness record.

ES25-0454 - P*038
Best Selected Posters

Argon plasma coagulation: the formation of peritoneal adhesions in a rat model depends on the energy intake and on the type of coagulation

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Background
To compare peritoneal adhesion rates of different coagulation methods in a rat model.

Methods
Four prospective randomized controlled trials (RCTs) with female Wistar rats were performed to investigate peritoneal adhesion rates. In a first dose-finding RCT the incidence of adhesion formation depending on the amount of energy intake was investigated for argon plasma coagulation (APC) with high vs. low APC energy (n=36 lesions). Three subsequent RCTs were performed to compare the formation of adhesions after peritoneal trauma with non-contact APC vs. monopolar contact coagulation (MCC) with a ball electrode (n=48 lesions), APC vs. aerosol supported APC (AePC) (n= 62 lesions), and APC after peritoneal elevation with a waterjet (HybridAPC) system vs. peritoneal elevation without subsequent thermal ablation (n= 44 lesions), respectively. To ensure comparability of the adhesion rates among these three RCTs, special care was taken to an equal energy intake for each coagulation method.

Results
Low energy APC resulted in significantly less adhesions than high energy APC (6% vs. 64%, $p<0.0001$). With an equal energy intake, the comparison of adhesion rates showed 85% for MCC, 50% for APC, 16% for AePC, and 2% for HybridAPC. No adhesions were formed after peritoneal elevation by waterjet only without subsequent thermal ablation.

Conclusions
Adhesion formation depends on the energy intake and on the type of coagulation. Non-contact APC leads to significantly fewer peritoneal adhesions compared to monopolar contact coagulation, possibly due to the direct mechanical contact of the MCC ball electrode and lower local tissue temperature inflicted by APC. The addition of liquids (0.9% sodium chloride) to APC in form of an aerosol generated by a spray nozzle or a fluid cushion created by waterjet elevation of the peritoneum results in a significant reduction of adhesion rates due to improved peritoneal conditions with less tissue dessication, less carbonization and a permanent tissue cooling effect. Peritoneal waterjet elevation itself does not provide any risk of adhesion formation. Aerosol supported APC and the combination of peritoneal waterjet elevation and subsequent APC ablation with the HybridAPC instrument can thus be regarded as a safe coagulation method with only minor adhesion formation.

ES25-0463 - P*039
Best Selected Posters

Long term outcome of laparoscopic sacrocolpopexy with acellular collagen matrices compared to synthetic polypropylene grafts

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Background
We compared the long term anatomical and subjective outcome of a prospective consecutive cohort (n=150) of patients undergoing laparoscopic sacrocolpopexy (LSC) for apical vaginal prolapse using either a xenogenic (ACM) or a polypropylene (PP) graft.

Methods
We reviewed a cohort of patients undergoing LSC for symptomatic prolapse (≥stage 2) using xenografts and compared it to a control group operated with synthetic grafts. The medium term outcomes of this prospective observational study were previously reported (Deprest et al 2009). Cases were 50 consecutive patients who underwent LSC with porcine grafts of small intestinal submucosa (n=21) or dermal collagen (n=29). Controls were consecutive patients in whom PP was used. We included a cohort of 50 controls operated before, and 50 operated after the index cases. Follow-up assessment included a standardized interview and if possible physical examination using the pelvic organ prolapse quantification (POP-Q) system. Principal outcome measures were subjective cure using patient global impression of change-score (PGIC) and functional outcome. Secondary outcomes were anatomical failure (stage II+) in the middle (C), anterior (Ba) and posterior (Bp) compartment, and reoperation rate either for GRC or pelvic floor dysfunction (PFD).

Results
Baseline characteristics between responders (n=114) and non-responders (n=36) were comparable, except for age and follow up period. Of the 114 respondents, 33/50 were initially operated with xenografts and 81/100 with PP graft. Physical assessment was possible in 54% (n=81) patients (ACM n=21; PP n=60). Median follow up time was 122 (IQR 15) months in the xenograft and 109.5 (IQR 42) in the PP group (p=0.072). Baseline characteristics of responders were comparable for both groups, except for degree of cystocele in the PP group. At study closure there was a significant difference in subjective outcome (PGIC ≥4) between groups (ACM: 66.7% vs PP: 86.4%; p= 0.015). The anatomical failure rate was higher in the xenograft group, both at point C (9.1% vs. 1.2%; p=0.022) as well in the anterior (27.3% vs. 14.8%; p=0.04) and posterior (36.4% vs. 18.5%; p=0.007) compartment. The functional outcome was comparable between groups. There were 7 reoperations, including for vault prolapse (n=4; all in the xenograft group; p=0.006) or cystocele (n=2 in xenograft group; n=1 in PP group; p=0.184). The reoperation rate for GRC was comparable (2.0% vs 8.0%; p=0.184). There were two reinterventions for intestinal occlusion, one in both group.

Conclusions
We have confirmed earlier observations on higher recurrence and reintervention rates when using xenografts. Up to 33% of our patients operated with xenografts were unhappy with the outcome (PGIC), much higher than with PP grafts (13.6%). There were no significant differences in functional outcome or reoperation rate for GRC. These data do not support the use of ACM for this indication, yet study design was not ideal.

ES25-0500 - P*040
Best Selected Posters

Successful pregnancies in women with diffuse uterine leiomyomatosis after hysteroscopic myomectomy and gonadotropin-releasing hormone analogue pre-treatment

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Background

Diffuse uterine leiomyomatosis is a benign and extremely rare condition in which the uterus is symmetrically enlarged as a result of the almost complete replacement of the myometrium by innumerable poorly defined, confluent nodules.patients with leiomyomatosis present with menorrhagia, dysmenorrhea, abdominal pain, infertility, and pelvic pressure. Hormonal treatment usually fails to control the symptoms, anemia, or tumor growth after treatment is stopped. As a result, despite patients being in the third or fourth decades of life, hysterectomy has been the only permanent treatment option offered to patients for treatment of the symptoms related to uterine fibroids in diffuseleiomyomatosis.We report the surgical and reproductive outcomes of early diffuse uterine leiomyomatosis with hysteroscopic myomectomy and gonadotropin-releasing hormone analogue pre-treatment.

Methods

Fourty consecutive women of reproductive age with innumerable small-sized (0.5-3.5 cm) diffuse uterine myomas with heavy uterine bleeding and anemia werewere diagnosed as diffuse uterine myomatosis by ultrasonography and hysteroscopy, Gonadotropin-releasing hormone analogue pr-treatment were given for 2 months to stop heavy uterine bleeding and correct anemia, Use of hysteroscopic myomectomy to excise only myomas impinging into the endometrial cavity, while leaving other intramural myomas in place. Postoperative uterine cavity adhesion, recurrence, menstrual amount, conception, and pregnancy outcome were followed up. The average follow-up duration is 36.7±11.0 months.

Results

Among the total 40 patients, 12 underwent a scheduled two-step procedure with gonadotropin-releasing hormone analogue treatment in between. Recurrence rate was 35%(14/40), 2 women experienced 2 times' myomectomy and 3 women experienced 3 times' myomectomy because of submucosal myoma recurrence, the uterus was successfully preserved for 39 patients except one laparoscopic subtotal hysterectomy, A normal amount of menstruation was restored in 92.5% (37/40) patients. 45%（18/40） patients had postoperative synechiae after first hysteroscopic surgery, 30 patients who wished to conceive had 16 successful conceptions, 14 conceived spontaneously and 2 conceived by assisted reproductive treatment, with 15 healthy deliveries, the postoperative pregnancy rate was 53.3%, and live birth rate was 50%（15/30）.

Conclusions

Women with early-stage diffuse uterine leiomyomatosis can be treated by hysteroscopic resection and gonadotropin-releasing hormone analogue pre-treatment, which has the benefits of preserving the uterus successfully and getting satisfactory reproductive outcomes.

ACCEPTED FOR POSTER PRESENTATION (158)

ES25-0003 - P041
Posters

Comparison of fertility outcomes between non-IVF and IVF group after laparoscopic cystectomy with combined technique

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Background
To compare of fertility outcomes after laparoscopic cystectomy with combinedtechnique between non-ivf and ivf group.

Methods
This prospective cohort study was conducted in a tertiary center between January 2012 and September 2015. A total 59 women with advanced stage endometriosis and having subfertility problem were included in this study. The inclusion criteria were advanced stage endometriosis, subfertility, first attempt of surgery, nulligravida, no medical treatment preoperatively, no other subfertility problems such as male factor and ovulation disorders and higher endometriosis fertility index(EFI) score than three after completion of conservative surgery.After detailed preoperative work-up, laparoscopic endometrioma excision in according to combined technique, anatomic restoration and evaluation EFI score were performed. After detailed counseling, some women selected expectation and non-IVF(Invitrofertilization) treatment(n=25) and the others were opted to IVF treatment(n=23). Eleven women were excluded from study for having lower(≤3) EFI score.Four women in non-IVF group and five women in IVF groupwere excluded from analysis because of the lost the follow-up. Main outcome measures were cumulative pregnancy rate, abortion rate and live birth rates.

Results
Patients characteristics and fertility outcomes were summarized in Table 1. Pregnancy were achieved in two women during expectation management and in six women with controlled ovarian stimulation and intra-uterine insemination (COS+IUI) in non IVF group. Pregnancy and clinical pregnancy rates were higher in IVF group than non-IVF group (p=0.038, p=0.046). Live birth rate was 62.5% in non IVF group whereas 50% in IVF group. The difference was not statistically significant (p=0.053). Total cost per patient of the two management were 4800$ in non-IVF group and 7930,7$ in IVF group. The difference between non-IVF and IVF group in terms of the total cost per pregnancy was statistically significant (p=0.021).

Table 1: Patients characteristics and fertility outcomes

	Non-IVF (n=21)	IVF (n=18)	P value
Age(year)	23.4±3.8	25.1±4.9	0.46
BMI(kg/m^2)	22.4±3.6	23.9±5.1	0.39
Endometriosis scores(ASRM)	26.7±16.4	28.8±15.4	0.41
Total ASRM scores	34.3±8.6	37.2±11.3	0.35
CA-125(U/mL)	53.6±18.7	49.7±9.6	0.28
EFI	5.3±1.1	4.7±1.5	0.34
Mean follow-up(months, min-max)	39(30-43)	36(31-40)	0.30
Recurrence rate(n,%)	4(19%)	3(16.6%)	0.61
First month(n)	0	0	
First year(n)	0	1	
Second year(n)	2	2	
Third year(n)	2	0	
AMH changes	-0.46±0.21	-0.58±0.17	0.44

	Non-IVF (n=21)	IVF (n=18)	P value
Fertility outcomes			
Pregnancy rate(n,%)	8(38%)	10(55.5%)	0.38
Clinical pregnancy rate(n,%)	7(33.3%)	8(44.4%)	0.46
Abortion rate(n,%)	2(25%)	4(40%)	0.35
Live birth rate(n, %)	5(62.5%)	5(50%)	0.053
Pregnancy per cycle(n,%)	6(12.5%)	10(29.4%)	0.032
Total cycle numbers	48	34	
Pregnancy per cycle(%)	14.5	23.5	0.003
Total Cost($)	33.600	63.444	0.026
Cost per pregnancy($)	4800	7930	0.021

Conclusions

Fertility outcomes may comparable between non-IVF and IVF group in women with higher EFI score than three after primary conservative endometriosis surgery with combined technique.

ES25-0009 - P042
Posters

A practical approach in laparoscopic sacral colpopexy

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Background

Objectives Sacrocolpopexy which have high success rate (74-98%) are the most preferred surgery method in apical prolapse surgery all over the world. The use of laparoscopic suturing techniques for sacral and vaginal fixation of mesh is one of the most important challenges of the process. In this case report, we will introduce a new surgical method that facilitates a laparoscopic sacrocolpopexy.

Methods

Case

Sixty years old multipar woman was diagnosed with stage 3 pelvic organ prolapse. Two-stage surgical procedure was planned. Classic vaginal hysterectomy operation was performed in the first phase. Before closing of vaginal vault,aproximately 3 cm wide spaces were prepared for placing the mesh in the anterior and posterior vaginal wall (Figure 1,2). The arms of Y-shaped mesh were fixed to the anterior and posterior walls of the vagina with three permanent sutures. It was moved the long arm of mesh toward the promontorium in pelvis and vaginal vault was closed with later absorbed sutures via vaginal route. The second stage of the operation was laparoscopic approach. First the umbilical port and then one suprapubic and two inguinal auxiliary ports were placed. Rectum was deviated left by T lift retractor. Retroperitoneal space was dissected from promontorium to the Douglas space and the anterior longitudinal ligament was seen. The long arm of mesh were fixed to anterior longitudinal ligament by two endo-tackers. By using additionally suprapubic trocar, we easily reached promontorium with an appropriate angle.

Results

Case

The long arm of mesh were fixed to anterior longitudinal ligament by two endo-tackers. By using additionally suprapubic trocar, we easily reached promontorium with an appropriate angle.

Conclusions

Conclusions

The placement of mesh via vaginal route and the use of the endo-tackers for anterior longitudinal ligament fixation may reduce the need for the use of laparoscopic suturing in laparoscopic sacrocolpopexy. With this technique the operation can be performed more easily.

ES25-0018 - P043
Posters

The impact of gradually increasing energy dose on AMH levels in ovarian drilling

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Background
Ovarian drilling (OD) is one of the recommended second-line interventions for clomiphene citrate resistant women with polycystic ovary syndrome (PCOS). The value of clinical and laboratory markers for individualizing the amount of energy in OD is a controversy and current subject of interest. This study is designed to document alterations in Anti-müllerian hormone (AMH) levels with different energy doses by monopolar cautery in OD in rats.

Methods
Forty Wistar rats were randomly divided into four groups, each containing 10 animals. Group A was the sham group. Groups B, C and D were intervention groups to which OD was applied by monopolar cautery, with 40, 120 and 240 J/rat, respectively. The total amount of energy was calculated using formula: Energy (J) = power(W)*duration(sec)*number of punctures. The AMH values and ovarian volumes were evaluated pre-intervention and 3rd and 6th weeks after the intervention. Preoperative and postoperative values of AMH and ovarian volumes are compared.

Results
The pre- and post-operative AMH levels for Groups A, B and C were not significantly different according to the Bonferroni correction (p>0.0125). However, the postoperative AMH levels were significantly lower than the preoperative AMH levels in Group D (1.25 ng/mL (1.07-2.05) vs. 0.40 ng/mL (0.30-0.72); p=0.012). There was not a significant difference between the pre- and postoperative total ovarian volumes within each group (p>0.0125). There was no statistically significant correlation between AMH and ovarian volume both preoperatively and postoperatively (r=0.064, p=0.693 and r=0.247, p=0.124, respectively). The AMH levels and total ovarian volumes at the 3rd and 6th weeks were stable (p>0.05). Among the intervention groups, no significant difference was found when the change in AMH values per joule [(Preoperative AMH-Postoperative AMH)/ Joule] and the change in ovarian volume per joule [(Preoperative Volume-Postoperative Volume) /Joule] were compared (p>0.05).

Conclusions
AMH is a promising marker that can be used for individualization of the energy dose to increase OD success, but the relationship between the energy and AMH has not been documented yet. The current study, which was performed to evaluate the alterations in AMH levels with different energy doses by monopolar cautery in OD in rats, demonstrated that postoperative changes in AMH levels could only be observed after certain amount of energy is applied. Additionally, the decrement in AMH levels persisted at postoperative follow-up. Furthermore, reduction in ovarian volume was observed with increasing energy dose, although this reduction was not statistically significant. Further experimental animal models are needed to conclusively address this issue.

ES25-0020 - P044
Posters

Rethinking direct Trocar insertion for laparoscopic entry: Lessons from nine litigated cases

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Background
To report circumstances and clinical and medicolegal outcomes of 9 litigated cases associated with direct trocar insertion (DTI) injuries to bowel (7 cases) and major vessel (2 cases).

Methods
From 1990 through 2015, the senior author (GAV) reviewed 9 litigated/concluded cases in Canada associated with DTI during laparoscopic access.

Results
The average and (range) of age and BMI were 31 years (14 - 65) and 25 Kg/m^2 (20 – 35), respectively. Indications for laparoscopy included diagnostic (4), LAVH (3), pelvic mass (1), cholecystectomy (1). DTI was performed with 10 mm trocars (6 shielded, 3 unknown). One small bowel and one vascular injury was experienced by the same male surgeon. Injuries included small bowel (4), colon (3), major vessel (2). The vascular injuries to the IVC in one and external iliac artery in the other resulted in brain damage and near loss of limb, respectively. Litigation was favorable to the plaintiff in both cases. All bowel injuries declared with peritonitis within 3 post-operative days (5 on POD #1, 1 on #2, 1 on #3) but only 2 were acted upon immediately with favorable clinical and medicolegal outcomes. Delayed exploratory laparotomy (POD #2-9) resulted in significant adverse clinical outcomes (ileostomy/colostomy – 4, multiple surgeries –7, death - 1) and in all cases medicolegal outcomes were favorable to the Plaintiff.

Conclusions
During laparoscopic access, injuries to bowel and vessels from DTI may occur more frequently than other entry techniques, are more catastrophic, result in significant adverse clinical outcomes and provoke higher litigation with unfavorable outcomes. More importantly, this study raises the question on the wisdom of present day use and future utilization of DTI for primary laparoscopic access.

ES25-0023 - P045
Posters

Formatted consent forms for endoscopic procedures in benign gynaecology

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Background
Pre-operative consent is an essential part of the patient journey and its aim is to provide patients with information about a proposed procedure. The consent process facilitates the patient's opportunity to make fully informed decisions and needs to be clearly documented. Litigation is a significant financial burden for healthcare providers and may result from poor quality communication, lacking accurate information and details, or as a result of poor documentation.

Methods
To reduce the risk of patients experiencing suboptimal consenting processes, a series of pre-printed consent forms for endoscopic procedures have been designed and implemented at Queen Alexandra Hospital, Portsmouth using published clinical evidence and guidelines issued by the Royal College Of Obstetricians and Gynaecologists. The consent forms are used in clinics as part of our two stage consenting process and the risks documented reflect nationally accepted frequencies of occurrence of complications.

Results
Pre-printed consent forms have enabled standardisation of information discussed and reduces the variation that previously existed depending on the individual taking consent. It has also helped to improve efficiency through time savings because clinicians are not required to populate blank generic consent forms during clinic time. With implementation of new consent forms patients have received an opportunity to see full list of potential risks of surgery in figures and also have a carbon copy of the formatted and printed consent form to take home for further review.

Conclusions
We have designed formatted consent forms according with RCOG consent advice paper and current clinical evidence available for the following procedures: Total / subtotal laparoscopic hysterectomy, laparoscopic treatment to endometriosis, diagnostic and operative hysteroscopy (including endometrial ablation and hysteroscopic fibroid / polyp morcellation), laparoscopic urogynaecology procedures. We are very happy to share our experience with our colleagues worldwide. Formatted consent forms will be available for sharing on request.

ES25-0026 - P046
Posters

Is there a strong association between endometriosis and symptomatic leiomyomas?

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Background
This study assesses the coexistence of endometriosis in women presenting with symptomatic leiomyomas. In our patient population, we have observed significantly more endometriosis in patients with symptomatic leiomyomas, which could have a profound effect in the management of both diseases.

Methods
This is a retrospective review of a prospective data-based collection of medical records of 244 patients, who were evaluated for symptomatic leiomyoma from March 2011 to December 2015, at a tertiary referral center. A total of 208 patients underwent myomectomy or hysterectomy. All patients were consented for possible concomitant diagnosis and treatment of endometriosis. From 244 patients, 208 patients underwent laparoscopic or laparoscopic-assisted myomectomy or hysterectomy. The remaining 36 patients underwent medical therapy and were excluded from the study. All patients who had myomectomy or supracervical hysterectomy underwent mini-laparotomy for extracorporeal morcellation and specimen removal starting in April 2012.

Results
Of the 208 patients with the presenting chief complaint of symptomatic leiomyoma and who underwent surgical therapy, 181 were diagnosed with concomitant leiomyomas and endometriosis, while 27 were diagnosed only with leiomyomas. Of those 27 patients, 9 also had adenomyosis. Patients with only fibroids were on average 4·0 years older than those with endometriosis and fibroids (Mean age 44 vs. 40 +/- SD or SE). Patients with both diagnoses were also more likely to present with pelvic pain and nulliparity than those with fibroids alone.

Conclusions
In our patient population, the vast majority of patients with chief complaint of symptomatic fibroids were also diagnosed with histology-proven endometriosis. This affirms the need to concomitantly diagnose and treat both conditions, intraoperatively. Overseeing the diagnosis of endometriosis in women with symptomatic leiomyomas may lead to suboptimal treatment of fertility, persistent pelvic pain, and possible oncology-related concerns. It is important for physicians to be aware of the possibility of this association in order to provide improved patient care.

ES25-0030 - P047
Posters

Laparoscopic management of large ovarian cysts

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Background

Objectives Large ovarian cysts are traditionally managed by laparotomy. We present two cases of very large simple ovarian cysts managed by laparoscopic surgery without any complications.

They were assessed preoperatively as a low risk of malignancy.

Methods

Materials and methods We describe in detail two cases of young patients who had their surgical management conducted at Rotherham General Hospital.

Results

Results The patients were aged 21 and 29 years respectively. They were both seen initially in the outpatient clinic with symptoms of abdominal distension and discomfort. The tumor markers including Ca125 were measured for both patients within normal limit. The patients had further investigations including ultrasound and CT. The cysts dimensions were between 35 and 36cm and described as simple cysts with multiple septations.The CT scan confirmed that the cysts were in direct contact with the abdominal wall with no intervening bowel loops. The entry technique at laparoscopy for both patients was with the Veress needle inserted directly into the cyst through the umbilical port and the fluid drained through the Veress needle. On average between 10 and 13l of clear fluid were drained. This was followed by routine laparoscopic oophorectomy and the specimens were retrieved via 12mm lateral port. Both patients had no complications at the time of the surgery and they had an uneventful postoperative recovery. The histopathology reports confirmed benign mucinous cystadenoma and serous cystadenoma respectively.

Conclusions

Conclusion There is a continuous debate in the literature regarding the size limit of ovarian cysts treated laparoscopically. However, with careful patient selection, availability of surgical expertise and with advancing techniques and instruments, it is possible manage huge ovarian simple cysts by laparoscopy.

ES25-0034 - P048
Posters

Laparoscopic repair of cesarean section scar diverticulum and the surgical outcome in 146 patients

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Background
Total laparoscopic repair was reported in some patients. However, the reported sample sizes (only 3 and 13 cases) and follow-up of the previous studies were insufficient to draw solid conclusions. Herein we described laparoscopic repair of cesarean scar diverticulum (CSD) in a series of 146 patients in our hospital.

Methods
This is a retrospective study.From April 2010 to July 2015, 146 patients with CSD in the Obstetrics and Gynecology Hospital of Fudan University underwent laparoscopic repair of CSD.

The first 45 patients underwent incomplete excision (only excised the top ceiling of the niche), and the rest 101 patients underwent complete excision. The surgical and pregnancy outcome were followed, and the risk factors for successful healing of the repair were analyzed.

Results
The surgery were all successful with no complications and no blood transfusion. The patients were followed-up for an average of 41.18±11.15 (6-69) months. The patients in the incomplete and complete excision group both had an obviously shortened period after surgery ($p<0.001$), the duration of period was 9.02±2.94 days and 7.75±2.77 days ($p=0.764$), and the clinical effective rate was 71.43% and 83.51% ($p=0.024$). MRI image 6 months after surgery showed there was still small niche in 32.1% and 26.2% of the patients in the incomplete and complete excision group. Single factor analysis showed that the thickness of the residual myometrium (≥3mm vs < 3mm) (88.33% vs. 73.72%, Odds ratio 0.76, 95% CI 1.68-4.55, $p=0.026$), suturing material (delayed absorbable vs absorbable material), (85.71% vs. 55.56%, Odds ratio 4.8, 95% CI 1.9-12.1, $p=0.001$) and estimated blood loss (≤60ml vs > 60ml) (75% vs. 89.36%, Odds ratio 2.8, 95% CI 0.98-7.93, $p=0.040$) were correlated with the effects of surgery. Duration of menstruation before surgery, number of previous cesarean section, duration from symptom to operation, experienced (> 10 cases/y) or unexperienced surgeon, complete or incomplete excision of the scar and operating time were not related to the surgical effective rate. Multivariate logistic regression analysis showed that the thickness of the residual myometrium (Odds ratio 2.959, 95% CI 1.023-8.563) and suturing material (Odds ratio 6.204, 95% CI 1.576-24.422) were independent risk factors for successful healing of the repair. Thirty-two patients desired for fertility in this study, and 12 of them got pregnant in 13-32 months after surgery, including 8 term cesarean delivery, 2 preterm cesarean delivery, 1 artificial abortion, 1 cesarean scar pregnancy, and 2 were pregnant when this study was summarized.

Conclusions
Laparoscopic complete excision and repair of CSD may be performed with fair symptom relief and acceptable postoperative anatomic and functional outcomes.

ES25-0036 - P049
Posters

Are we sure the safety of Essure?

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Background

Hysteroscopic sterilisation with Essure has been used increasingly since it was introduced in 2001. Compared with classic laparoscopic sterilization, hysteroscopic route can be performed with less surgical time in an outpatient clinic setting, without the need for surgical incisions and general anaesthesia, with superior patient tolerance and patient satisfaction. Adverse events with the Essure insertion are related to general hysteroscopic approach or specific device placement technique. Known complications include: vasovagal syncope, pain during and after procedure, incorrect placement, bleeding, dyspareunia, allergic reactions, tissues perforation, device expulsion or migration causing bowel obstruction or perforation. Unwanted pregnancies may also occur. Due to increasing number of reported complications, Essure is nowadays the subject of thousands of complaints worldwide, especially in United States and Canada.

Methods

Analysis of patient medical records, who underwent hysteroscopic sterilization and subsequent hysteroscopy and laparoscopy for the treatment of metrorrhagia which occurred after Essure placement, followed by video record and discussion about reported complications and dangers related to this technique.

Results

A 33-year-old female who underwent hysteroscopic sterilization with Essure was presented with postoperative metrorrhagia resistant to pharmacological treatment. During subsequent hysteroscopy coils of device were visualized in the uterine cavity penetrating myometrium and causing its persistent irritation and bleeding. Trial of evacuation of the device this route failed. Patient underwent laparoscopy and Essure was removed together with right fallopian tube.

Conclusions

The number of reported unwanted pregnancies and complications after Essure placement increased rapidly. Some of them required one or more subsequent procedures to treat them. Surgical extraction of Essure required often radical treatment, like it was in presented case, which doesn`t correspond with advertised minimally invasive profile of this device. Potential risk should be discussed with patient. Safety of Essure should be re-evaluated.

ES25-0042 - P050
Posters

Surgical management of deep colorectal endometriosis in France: a multicentric 1,135 case-series. On behalf of the FRIENDS group (French coloRectal Infiltrating ENDometriosis Study group)

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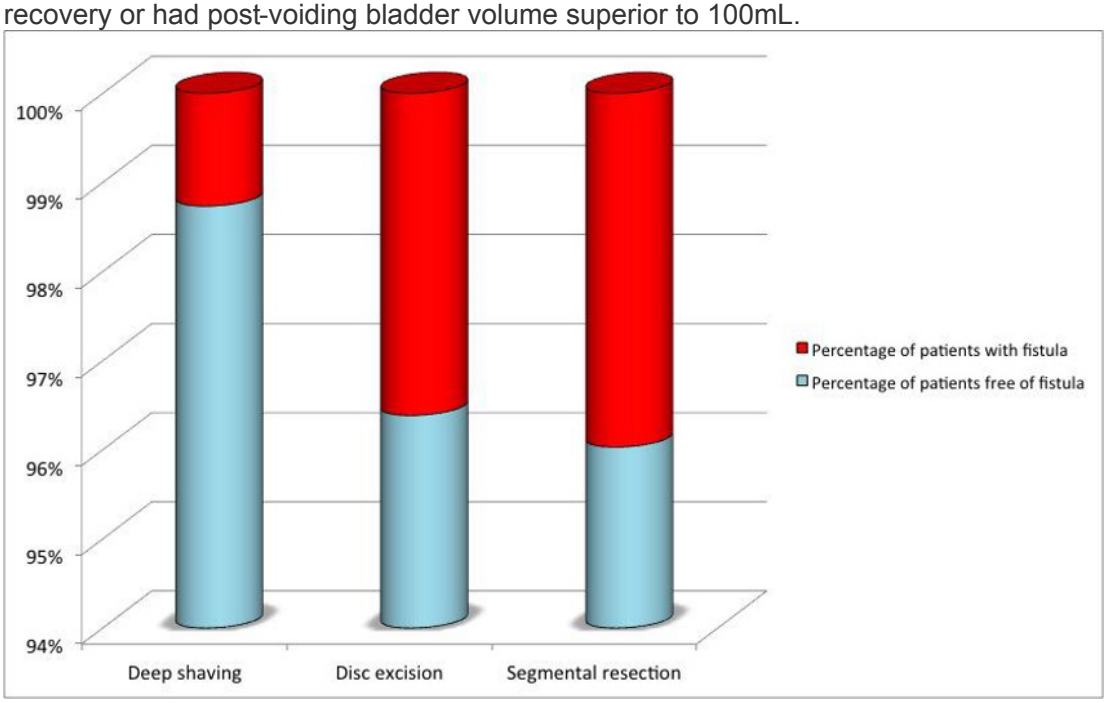
Background
We report a 2015 survey on the characteristics of surgical management of patients with deep infiltrating endometriosis of the rectum and the sigmoid colon (DIERS) in France.

Methods
Case-series study enrolling patients with DIERS involving muscularis, submucosa or mucosa, who were operated on from January 1 to December 31, 2015, in 56 French facilities. Surgeons filled in questionnaires concerning the number of patients, deep endometriosis localizations, surgical route and techniques employed on digestive tract, associated surgical procedures and major complications. Data were pooled in a unique database.

Results
1,135 patients were enrolled in the series, providing from 56 facilities (33 university, 4 general public and 19 private facilities). Deep endometriosis infiltrated only the rectum in 56.8% of cases, the rectum and the sigmoid colon in 36.3% and solely the sigmoid colon in 6.9%. Associated localizations involved the caecum in 6.6%, small bowel in 4.7%, bladder in 9%, and were responsible for stenosis of ureters in 13.4% and for hydronephrosis in 6.8%. The surgery was performed using conventional laparoscopy in 82.2%, robotic-assisted laparoscopy in 9.7% and open surgery in 8.1%. Rectal shaving was carried out in 48.1%, disc excision in 7.3%, colorectal segmental resection in 40.4% and sigmoid colon segmental resection in 6.4% (2 different procedures could be associated in the same patient).

Ureters resection was carried out in only 4%, representing 29.6% of cases with stenosis of the ureters. Bladder resection was carried out in 6.9%. Vaginal resection and hysterectomy were performed in respectively 33 and 14.7% of cases, while temporary stoma was used in 19.1%. Anastomotic leakage occurred in 0.8%, pelvic abscess in 3.4%, rectovaginal fistula in 2.7% of patients, ureter fistula in 0.7%, while 8.6% of patients either required catheterization after recovery or had post-voiding bladder volume superior to 100mL.



Considering the surgical procedure employed the risk of rectovaginal fistula was 1.3, 3.6 and 3.9% following respectively shaving, disc excision and segmental resection. Intensive cares were required in 1.1% and blood transfusion in 2.2%.

Conclusions

Our 2015 survey of high number of patients managed for DIERS in France confirms that DIERS is far from being a rare disease. Even in the setting of complex procedures requiring multidisciplinary teams, laparoscopic management can be achieved in 9 out of 10 patients with low risk of postoperative complications.

ES25-0052 - P051
Posters

TCUI for unicornuate uterus with infertility

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Background
To evaluate the feasibility of transcervical uterine incision (TCUI) in patients with unicornuate uterus with infertility.

Methods
Thirty-four patients with unicornuate uterus presented with infertility or miscarriage. All of them underwent TCUI, and followed up for 10-54 months. TCUI was performed by the use of Olympus resectoscope under laparoscopic or ultrasound guidance. Firstly, a shallow transverse incision over the narrowed fundal part of the unicornuate horn was made by using a wire loop or needle electrode. This created a new uterine fundus with a width of ≥2cm. Then, a 4cm long vertical incision was made over the lateral wall, approximately 1 cm deep over the fundal region but taper to stop at the level of the isthmus.

Results
An inverted triangular shaped uterine cavity after operation was created, into which a Foley catheter was inserted, stayed in situ for 5-7 days, and then removed. Until now a total of 29 pregnancies in 34 patients were counted, respectively 11 term delivery, 2 ongoing pregnancy and 16 livebirths.

Conclusions
TCUI appeared to improve the reproductive outcome in women with unicornuate uterus presenting with infertility or miscarriage.

ES25-0056 - P052
Posters

The indications for abdominal surgery in patients with spontaneous ovarian hyperstimulation: literature review

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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. Abdominal surgery is performed in these patients for variety of indications.

Methods
A review of literature through medical electronic databases was carried out to describe the previously reported cases and the indications for abdominal surgical interventions in such cases.

Results
In addition to our case, we have identified 71 cases published in literature till December 2015 with diagnosis of sOHSS. Of those cases 37% (26/70) were not associated with pregnancy. The mean age of women with sOHSS is 27 ±6.96 years. The mean gravidity of those women is 1.3± 1.52 and mean parity of 0.5±1.23. The commonest presenting symptom is abdominal pain in 36% of women. The gestational age at presentation varied from 6 to 22 weeks although the commonest is 9-14 weeks. Abdominal surgical intervention was carried out in 20 cases of which 50% (11/20) were by laparoscopy. The indications for surgical intervention were described to be treatment or confirmation of suspected ovarian malignancy, treatment of suspected ovarian torsion, therapeutic ascetic tap and resection of ovarian tissue. Of the operated women, 12 (60%) had intrauterine pregnancy and 8 of them had laparotomy whereas the other 4 had a laparoscopic intervention.

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.

ES25-0061 - P053
Posters

The development effectiveness of the electronic menopausal health screen system

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Background
For the menopausal women, they are in the transition of health and sickness. The most of menopausal care trend assessment menopause disturbance with education, but integrate care for prevent chronic diseases is lack. The purpose of study is integrate menopausal disturbances, evaluating risk factors for osteoporosis, cardiovascular disease, diabetes to build up confidence and effective electronic menopausal health screen system (EMHSS) for women.

Methods
This research separate four stage: assessment and analysis, design, development and pretest stage to explore the effectiveness of EMHSS.

Results
EMHSS have a high degree of reliability and validity: Expert validity 0.97~0.99 and Content validity 0.99, and test-retest reliability: Pearson's correlation during 0.80~0.96 and intra-class correlation during 0.79~0.96.

Conclusions
The EPMHSS developed through cross-disciplinary collaboration among nursing, medicine, and information engineering to apply in menopausal women. The EPMHSS can quickly provide tailored health education content to patients and compile historical assessment data that might help to provide auxiliary references for nursing staff when providing health consultations and for physicians delivering diagnoses and treatment.

ES25-0062 - P054
Posters

An ectopic pregnancy with very high β-hCG and the choice of methotrexate as treatment instead of laparoscopic surgery

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Background
Ectopic pregnancies are defined as implantation of a fertilized ovum outside the endometrial lining of the uterus and it most commonly occurs in the fallopian tube. Although surgical intervention, mainly laparoscopy, used to be the main treatment, earlier detection has allowed a shift towards conservative nonsurgical management for stable patients. For those ones at an early gestational age, treatment with methotrexate has become a safe choice. We present an interesting case of an ectopic pregnancy with a very high value of β-human Chorionic Gonadotropin. We follow-up the β-hCG, the size of the sac, the endometrial thickness, and the Doppler indices (PI and RI) of the crown.

Methods
A 31 years old woman came in A&E because of 7 weeks amenorrhea and a positive urine pregnancy test. She didn't have any clinical symptoms and her value of β-hCG was 13827. From her obstetric history, she had one normal delivery, one miscarriage and two dilatation and curettages. She left for personal reasons and she returned 7 days later, when she was admitted. Her β-hCG was 16414 IU that day and 17826 nine days from the first. As she was clinically stable, she opted for methotrexate treatment, after she was thoroughly informed about the choices. Therefore, she had the three-dose scheme of 50 mg IM, with three Buaderon injections in the days in between. The woman was seen weekly for follow-up.

Results
The value of β-hCG started to fall slowly after the third dose of methotrexate and normalized two months after the end of the treatment. The pelvic ultrasound showed a lecithic sac, a crown, but no fetal heart activity. The gestational sac started with a size of 0,8 cm, reached 5,7cm 4 weeks after the third dose and disappeared two months later. The endometrial thickness started in 0,6cm, reached 1,1 cm in 2 weeks after the third dose and started to decrease. The doppler indices PI – RI were measured around the crown of the ectopic as an extra index of the management and success of the treatment with methotrexate. They were high in the beginning and they were decreasing alongside to the β-hCG.

Conclusions
In contrast with the present criteria, there is a possibility to succeed medical treatment with MTX in women with ectopic pregnancy, which starts with very high values of β-hCG. The patient should be under a systematic control and review to keep her health safe and all the information have to be given to her. Apart from the usual follow-up, Dopller indices are proposed as extra criteria.

ES25-0063 - P055
Posters

Tubal surgery or IVF is always a dilemma. Where are we now?

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Background
The decision to treat patients with tubal diseases is difficult, as it involves surgical, medical, social, emotional and economic factors. This abstract aims to increase awareness of tubal disease diagnosis and treatment. It focuses on randomized studies, which give new aspects regarding on the treatment for tubal pathology before IVF.

Methods
We have aimed to study the up to date literature in order to answer specific questions regarding the effectiveness of IVF after the treatment of hydrosalpinx or the effect of salpingectomy on the ovarian response to gonadotropins. We have also tried to see the rates of pregnancy after IVF and ICSI in unexplained endometriosis-associated infertility and in tubal factor infertility patients. We reviewed the methods of surgical intervention before the IVF cycles. All papers were written in English, published in PubMed and prospective studies where used.

Results
The live birth rate achieved with IVF among women with hydrosalpinges is approximately one half compared to those without hydrosalpinges. In women with hydrosalpinges, preliminary laparoscopic salpingectomy or proximal tubal occlusion could help to succeed subsequent pregnancy with IVF. The data up to now are insufficient to permit recommendations regarding the effectiveness of alternative treatments such as laparoscopic neosalpingostomy, transvaginal aspiration of hydrosalpingeal fluid, hysteroscopic tubal occlusion, or antibiotic treatment. The effect of salpingectomy on the ovarian response to gonadotropins and in vitro fertilization-embryo transfer cycles was also analyzed, and it has been shown to improve live birth rates. Pregnancy outcome after IVF and ICSI in unexplained, endometriosis-associated infertility and tubal factor infertility has also been examined. It indicated lower first trimester abortion percentage, higher first treatment cycle pregnancy percentage, higher live birth level and more twin births after transfer of two embryos in the unexplained infertility group. Finally the effectiveness of tubal surgery versus IVF was analyzed. ART are undoubtedly less surgically invasive. The success of the laparoscopy depends on the experience of the surgeon, the severity of the disease, the age of the patient, and any complications following the procedure. On the other hand, if tubal surgery is successful, it offers less complications, and permanent cure.

Conclusions
IVF and endoscopic tubal surgery must be complementary rather than competitive techniques in the majority of tubal disease cases in order to improve fertility outcome. Sufficient patient selection is the key to determine the best therapeutic method for tubal impairment. There is still need for large randomized trials in order to have safer conclusions for the optimal management of infertility in women with tubal diseases.

ES25-0064 - P056
Posters

Vault prolapse occurrence after total laparoscopic hysterectomy and total abdominal hysterectomy performed for benign indications. Comparison between the two surgical techniques - A systematic review

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Background
This study aims to systematically review published data on vaginal vault prolapse occurrence after total laparoscopic hysterectomy vs abdominal hysterectomy for benign uterine pathology.

Methods
Medline and PubMed were searched for randomized and non-randomized clinical trials reporting on vault prolapse occurrence after laparoscopic or abdominal hysterectomy as a long-term complication.

Results
The search yielded only one study reporting on vaginal vault prolapse after LAVH (Laparoscopically Assisted Vaginal Hysterectomy) and TAH (Total Abdominal Hysterectomy). The additional articles that were retrieved using the 'search for related articles' function as well as from references of eligible studies were 581. Of these 473 studies were excluded by title, 45 by abstract, 32 by full text, 7 for which the full text could not be retrieved, and 24 by language. For the study included two groups of women were followed up after LAVH (n=150) and TAH (n=146). Using the STATA software no statistically significant difference in the likelihood of vault prolapse has been revealed between the two groups (p=0.592).

Conclusions
This review demonstrates that there is no difference in the likelihood of vaginal vault prolapse between LAVH and TAH for benign uterine pathology. The fact that only one retrospective paper is available for the evidence should made us critical of the conclusion and reveals a limitation of the available literature. More studies are needed with a greater number of cases and longer follow up to assess whether abdominal or laparoscopic hysterectomy is more appropriate to prevent vault prolapse.

ES25-0065 - P057
Posters

Office hysteroscopy for the diagnosis of endometrial cancer – An interesting case report

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Background
Postmenopausal bleeding (PMB) is defined as bleeding from the genital track one year after the cessation of menses. About 1 in 10 women with postmenopausal bleeding will be diagnosed with malignancy.

Methods
A 62 year old female patient who presented to the gynecological clinic with two incidents of vaginal bleeding in the last 60 days. The gynecological examination and the transvaginal ultrasound did not reveal any signs of pathology.

Results
An office hysteroscopy and biopsy was performed and the histopathological examination revealed findings consistent with adenocarcinoma of the endometrium. The patient underwent a laparoscopic total hysterectomy and bilateral salpingo-oophorectomy.

Conclusions
This case report highlights the contribution of office hysteroscopy as a diagnostic tool in women with PMB, as it has a higher sensitivity compared to dilatation and curettage as well as to a biopsy acquired with a pipelle.

ES25-0066 - P058
Posters

Laparoscopic hysterectomy is an expensive procedure. A myth?

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Background

Hysterectomy is a common gynaecological procedure with more than 70 % of hysterectomies performed for benign surgical indications [1]. Roughly 55,000 hysterectomies are performed in the UK every year. Between 30,000 and 40,000 of these take place in the NHS. For several years, total abdominal hysterectomy (TAH) has been the standard method for removal of the uterus especially when vaginal route was not possible. In order to perform effective surgery with quick recovery and less cost, laparoscopic hysterectomy was introduced in 1989 [2]. Total laparoscopic hysterectomy (TLH) is a treatment option with smaller incisions and scars, shorter hospital stay and shorter recovery period than for open surgery (American Association of Gynaecologic Laparoscopists (AAGL 2011)). The aim of this study was to compare the cost effectiveness of TAH versus TLH by comparing the costs related to theatre including instruments, operating time and cost of hospital stay.

Methods

We performed retrospective cost analysis of TAH and TLH. In our unit, 252 cases of total hysterectomies were performed during the period from January to December 2015. The hysterectomies were divided into 105 cases of TAH and 147 cases of TLH.

Results

Average operation time for TAH was 101 minutes (min) compared to 140 min for TLH. Instruments cost for TAH was only £200 in comparison to £524 for TLH. Direct theatre cost for TAH was cheaper at £1536.21(101 min x £15.21). TLH was more expensive at £2129.4 (140 min x £15.21). The hospital stay for TAH was 3.7 days at a cost of £ £2401.3 (3.7x £649). In spite of the learning curve, TLH hospital stay was reduced to 2.2 days which cost £1427.8 (2.2 x £649). For this point, the cost benefit of TLH was obvious. Overall cost was £4137.51 for TAH compared to £4081.2 for TLH.

Conclusions

TLH may be also associated with less indirect cost and more national savings. Indirect costs include readmission rate, social costs because of loss of productivity and individual costs relating to a patient's absence from work or normal activities. In future when more experience is gained by surgeons, it should also reduce the direct cost for the procedure. An audit comparing both, direct and indirect cost in few years time might be the way forward.

This data demonstrates the overall cost saving for the trust after the introduction of TLH. The cost saving was mainly gained from the shorter hospital stay.

ES25-0069 - P059
Posters

The Role of "Protescal" in intrauterine adhesion treatment

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Background
Intrauterine adhesions (IUA) is one of the reasons for infertility. Injury of endometrial basal layer is the trigger mechanism for adhesion formation. The real incidence of IUA is still unknown. Clinical symptoms vary from menstrual dysfunction to infertility. The recurrence of IUA after surgery is connected with its grade before surgery. According to Hanstede data (Fertil Steril., 2015) at patients with Asherman syndrome the recurrence rate of IUA after uterine cavity restoration is 28,7%.

Methods
23 patients were included in our study who had hysteroscopy verified IUA. These IUA were classified by AFS classification (1988). All the patients had previous intrauterine manipulations: in 8 (34.8%) cases it was first-trimester procedure after miscarriage or abortion, which caused adhesions of grades 1-2; in 15 (65.3%) patients postpartum procedures caused IUAs of grade 3. Hysteroscopic adhesiolysis was classified as successful if menstrual function became normal along with a restored cavity anatomy with hysterocopic visualization of ≥1 tubal ostium. After successful adhesiolysis adhesion barrier "Protescal" (LG Life Science). was introduced into the uterine cavity of 1,5-3,0 ml.

Results
The procedure was successful in all women (100%), a healthy uterine cavity was restored with hysteroscopic adhesiolysis in 1-3 attempts and restoration of menstrual blood flow occurred in 100%. During office hysteroscopy 4-8 weeks after last adhesiolysis recurrence IUA were diagnosed in 3 (13%) patients who had IUA with third stage. Other patients did not have adhesions during follow-up hysteroscopy.

Conclusions
Postoperative prognosis depends on the severity of IUA. The use of adhesion barrier "Protescal" reduces the risk of adhesions recurrence.

ES25-0072 - P060
Posters

Surgical and medical treatment in ectopic pregnancy: a retrospective analysis of 36 cases

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Background
The aim of this study was to compare the results of surgical management and methotrexate treatment in women with ectopic pregnacy. The main outcome measures were treatment success rate, and rates of subsequent intrauterine pregnacy the first year after treatment, reccurent ectopic pregnacy, side effects of treatment and time of hospitalization.

Methods
36 women with ectopic pregnancy underwent either laparoscopic salpingectomy or treatment with intramuscular methotrexate in a single or multiple dose.All of them were hemodynamically stable, compliant and had an initial serum β-hCG concentration of less than 10000IU/L with no ultrasound evidence of fetal cardiac activity.

Results
23 of the 36 women (63.9%), underwent salpingectomy(group B) and 13 women (36.1%) underwent a single dose of 50mg im methotrexate(group A). 21 of the 23 women (91.3%) who underwent salpingectomy required no further treatment, compared to 8 of the 13 women (61.5%) who were treated with methotrexate.2 women (8.7%) in group B had persistent trophoblast.3 women (23%) of group A required more than one dose of methotrexate and 2 women (15.3%) underwent salpingectomy. The mean duration of hospitalization for group B at the surgery group was 3.1 days, compared to 10.2 days for group A. 11 out of the 23 women (47.8%) of group B, had to be transfused with RBC (total of 21 units) and FFP (total of 16 units).5 women of group A had side effects such as stomatitis and conjunctivitis.1 woman (4.3%) from group B and 1 woman (7.6%) from group A had recurrent ectopic pregnancy at the first year after treatment. 12 women of group B (52.1%) and 8 women of group A (61.5%) had an intrauterine pregnancy during the first year after treatment.

Conclusions
Laparoscopic treatment is a safe method and requires less days of hospitalization than medical treatment. There is no difference between the two methods regarding the pregnancy success rates after therapy and the rates of reccurent ectopic pregnancy.

ES25-0074 - P061
Posters

Anti-Mullerian Hormone (AMH) - related fertility outcomes in patients with endometriosis

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Background

Objective:

To evaluate pregnancy rate in patients operated for deep infiltrating endometriosis with infertility and pregnancy desire in relation to pre- and postoperative levels of AMH

Methods

Design: Retrospective study using data prospectively recorded in the CIRENDO database.

Setting: University tertiary referral center

Patients: 180 patients with deep infiltrating endometriosis and/or associated ovarian endometriomas > 5 cm known to be infertile and with a desire to conceive treated surgically in our department from June 2010 to December 2015. Patients were divided into two groups according to Pre-operative AMH levels: group A AMH > 2 and group B AMH < 2.

Interventions: Surgical interventions have included colorectal resection, rectal shaving, discoid rectal resection and ablation of peritoneal lesions. Associated ovarian endometriomas were managed by ablation by PlasmaJet.

Main Outcome Measures:

Patient characteristics, preoperative symptoms, surgical details, obstetrical and infertility history were recorded and compared between women of both groups. Fertility outcomes were then compared between the two groups.

Results:

Among 180 women enrolled in the study, 134 women (74.5%) were included in group A with a mean pre-operative AMH of 4.3±2.1, while 46 women (25.5%) in group B with a mean AMH level of 1±0.5 ($p<0.001$). Post-operative AMH levels were 3.4±2.5 and 1.2±0.9 in group A and B respectively ($p=0.001$).

AFSr score averaged 67.8±42.9 in group A and 68±39.3 in group B ($p=0.98$).83 women (46.4%) were infertile before surgery, 62 (46.6%) in group A and 21(45.6%) in group B ($p=0.52$)A total of 134 (74.4%) pregnancies were noted following surgery with 74 (55.2) women being able to conceive spontaneously. 100 women (74.6%) of them were among those of group A, and 34 (73.9%) in group B ($p=0.52$). The spontaneous pregnancy rate is 54% (54) in group A and 58.8% (20) in group B ($p=0.17$). Time to conceive was of 17.1±19.1 in group A and of 24.4±32.9 in the group B ($p=0.15$).

Conclusion

No statistically significant difference in pregnancy outcome rate was observed between the two groups. Patients with low AMH levels have the same spontaneous pregnancy rate as those with a normal AMH. The level of AMH does not therefore seem to be a marker of infertility especially in cases where assisted reproductive technology management is rejected due to reduced ovarian reserve.

ES25-0076 - P062
Posters

Minilaparoscopic versus conventional laparoscopic sacrocolpopexy: a comparative study

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Background

We aim to compare clinical and surgical outcomes between minilaparoscopic sacrocolpopexy (MLSC) and conventional laparoscopic sacrocolpopexy (LSC). As far as we know, no comparative study exists between these two minimal invasive procedures to correct vaginal prolapse.

Methods

An observational and comparative study with 20 individuals submitted to vaginal vault prolapse correction between June and December of 2014 in our tertiary referral unit. Nine women were submitted to 3-mm MLSC and the others were approached by a standard 5-mm laparoscopic technique. Women's demographic data and prolapse grade were evaluated preoperatively using the Pelvic Organ Prolapse Quantification score. Operative parameters (surgical time, blood loss, and complications under Satava and Clavien-Dindo classification) and length of hospitalization were also compared. Postoperative pain and surgical scar satisfaction were measured using Visual Analog Pain Scale and Patient and Observer Scar Assessment Questionnaire, respectively.

Results

MLSC took approximately the same time as LSC ($P > .05$). No significant differences in operative time, blood loss, length of hospitalization, and complications (Satava, Clavien-Dindo) were observed between both groups. Pain score after surgery was similar in MLSC and LSC ($P > .05$). Surgical scar monitoring at 3 months established that MLSC produced better overall results than LSC ($P < .05$). Anatomic cure rate was 100%.

Conclusions

Minilaparoscopy is a feasible and attractive approach for sacrocolpopexy as it enhances cosmetics, keeping the low morbidity associated with the classical laparoscopic approaches.

ES25-0081 - P063
Posters

Prediction of site-specific tumor relapses in patients with stage I-II endometrioid endometrial cancer

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Background
The aim of this study was to investigate the association of predictors of an advanced disease and/or poor outcome with the occurrence of tumor relapses in different anatomical sites in patients with stage I-II endometrioid endometrial cancer.

Methods
A total of 929 patients were included in the study. The median follow-up time was 57 months (range 1-108). The studied variables were: poor tumor differentiation, myometrial invasion ≥50%, tumor size ≥3 cm, lymphovascular space invasion, cervical stromal invasion, positive peritoneal cytology, old age (>77 years), obesity (body mass index ≥30 kg/m^2), and diabetes.

Results
A relapse was diagnosed in 98 patients (10.5%) (vaginal in 15, pelvic in 27, intra-abdominal beyond pelvis in 27, extra-abdominal in 29). None of the variables were associated with an altered risk for vaginal or pelvic relapses in univariate analyses. Poor differentiation, tumor size ≥3 cm and positive peritoneal cytology were associated with an increased risk for intra-abdominal relapses beyond pelvis (odds ratio [OR] 3.1-9.6). With the exception of obesity and diabetes, all variables were associated with an increased risk for extra-abdominal relapses (OR 2.3-13). Tumor size ≥3 cm (OR 4.3) and positive peritoneal cytology (OR 16) predicted intra-abdominal relapses beyond pelvis in multivariate analysis, whereas poor differentiation (OR 2.8), myometrial invasion ≥50% (OR 3.5) and positive peritoneal cytology (OR 28) predicted extra-abdominal relapses.

Conclusions
Risk variables of endometrial cancer are differently associated with relapses in different locations. Our findings may promote studies that explore the most efficient adjuvant therapy in high-risk early endometrioid endometrial cancer.

ES25-0082 - P064
Posters

Protocol: a consecutive description of the uterine cavity in patients with recurrent pregnancy loss

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Background
Recurrent pregnancy loss often is associated with several uterine evacuations (medical with Misoprostol or D&C) with an increased risk of endometritis and endometrial scaring (Ashermann); which may be caused by explainable abnormalities being polyps, fibromas or uterine septae, or as newer data suggests: a chronic infection.

Implantation failure, may be explained by a dysfunction of endometrial immune competent cells; the orchestration between uterine Natural Killer-cells (u-NK), CD8+ and, CD163+ cells together with peripheral–, and uterine progesterone levels might contribute to the pathogenesis behind recurrent pregnancy loss.

Methods
We aim to recruit a cohort of strongly selected patients over a year (n=100+). Inclusion criteria: three or more first-, or second trimester pregnancy losses, no known uterine abnormalities. All will have a diagnostic office hysteroscopy (OH) with biopsies.

The OH will supply the standard examinations each patient/couple is offered at a specialist centre. The OH will be planned to take place in the proliferative phase to standardize biopsies, as the number of u-NK and other immune cells are known to increase in the menstruation cycle. To confirm the timing we will measure peripheral estrogen- and progesterone levels at the day of examination.

Biopsies will be examined histologically with staining for u-NK-, CD8+, CD163+, etc.; further we will do immune-histo-chemical staining to elucidate dysfunction of the endometrium.

Results
With this strongly selected material we will be able to further describe the pathogenesis behind this condition in relation to uterine abnormalities and pathology, together with a histological description regarding immune competent endometrial cells and chronic infection.

Conclusions
We expect to describe a low grade of uterine pathology in this selected cohort with high incidence of interventions, confirming high quality of ultrasound scans today. Also we hope to refute earlier reported high incidences of Ashermann up to 20 %, we expect this to be lower in our clinical setting. Further we look into the role of endometrial immune competent cells, and overlooked chronic infections in explaining the pathogenesis of recurrent pregnancy loss.

ES25-0083 - P065
Posters

Face validity of ovine model for training on laparoscopic sacrocolpopexy

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Background
Approximately 40% of postmenopausal women will suffer from genital pelvic prolapse. According to the literature, the open sacrocolpopexy is the most effective method for treating this condition, but gradually the laparoscopic approach is gaining ground, mainly due to present similar anatomical and functional results, but offering the advantages of minimally invasive approaches: less postoperative pain and shorter hospital stay. The aim of this study is to make the apparent validation of the sheep model for learning laparoscopic sacrocolpopexy.

Methods
This study involved 39 participants. They conducted a monographic course on laparoscopic sacrocolpopexy organized by our institution during the months January to March 2016. Before the course, the attendants received an evaluation survey about their previous experience in this technique in both open and laparoscopic surgeries. After completing the course, the attendants assessed the experimental model's didactic capacity and the degree of learning achieved in laparoscopic sacrocolpopexy.

Results
None of the participants had experience in robotic surgery. Most of them had a basic and intermediate level in open and laparoscopic sacrocolpopexy, respectively.

As for the teaching capacity, 75% felt that it was very positive, assigning the highest score of 5. Similarly, the degree of learning achieved with the use of ovine model obtained a high score (4.4 ± 0.75 out of 5 points).

Conclusions
We believe that the sheep model is suitable for training in sacrocolpopexy. However, more validation studies are needed to determine its usefulness objectively.

ES25-0084 - P066
Posters

Laparoscopy during pregnancy: case report and key points to improve laparoscopic management

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Background
We present a clinical case of a nineteen weeks pregnant patient with acute hemoperitoneum treated successfully with laparoscopy. Based in this case report, our objective is to provide some practical recommendations on laparoscopic management of surgical problems that can appear during pregnancy.

Methods
We performed a review of the scientific evidence available in the medical literature. The search was restricted to English-language articles up to 10 years of the publication date. We included the following terms: 'laparoscopy' 'pregnancy' 'nonobstetric' 'surgery'. Data available in Society Guidelines, Clinical Reports and Systematic Reviews were reviewed and summarized answering to the following questions:

1.Is laparoscopic surgery safe and effective when used for diagnosis and treatment during pregnancy?

2. Has laparoscopic surgery during pregnancy any specific indications?

3. Can it be performed at any trimester of pregnancy?

4. Which is the appropriate patient position to perform the surgery?

5. What is the recommended abdominal access and how should the trocars be placed?

6. What is the insufflation pressure that can be safely used?

7. About the perioperative fetal care. Should we monitor the fetal heart? Are tocolytic agents recommended prophylactically?

Results
Nonobstetrical surgical problems complicate up to 2% to 3% of pregnancies. Appendicitis, cholecystitis, pancreatitis, bowel obstruction and trauma are the major nonobstetric abdominal conditions that require surgical intervention in pregnant patients. Indications for surgery are basically the same as in a non-pregnant patient.

Laparoscopy is considered to be safe and effective and is the preferred approach during pregnancy, always considering surgeon skills. There is no difference between laparoscopy and laparotomy in terms of complications. Apart from, laparoscopy improves patient recovery and return to normal life. Evidence suggests that laparoscopy is feasible during any trimester of pregnancy with minimal morbidity to the fetus or to the mother.

For a better laparoscopic approach there are some steps that should be adapted to the gravid patient. About patient position, it's recommended to have a slightly turn to patient's left side to minimize uterine compression of the vena cava. Either Veress needle or open (Hasson) technique can be safely used for the entrance to abdominal cavity. Trocar placement should be

adjusted according to fundal height in relation to pregnancy age. CO2 pressure may be maintained between 12 and 15 mmHg. There is no need to perform continuous monitorization of the fetal heart. Tocolytic agents are not recommended prophylactically. Assessing thromboembolic disease prevention with pneumatic compression device is generally suggested.

Conclusions

Laparoscopic surgery of a non-obstetrical problem during pregnancy is feasible and can be safely performed in any trimester. Because of the special anatomic and physiologic condition, there are some special key points that may be taken into account to improve the results of the surgery.

ES25-0086 - P067
Posters

Reproductive outcomes of cervical cerclage - 6 year follow up

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Background
to study and improve reproductive outcomes in women with functional and organic cervical incompetence, cervical stump, utero-vaginal anastomosis.

Methods
Results global statistical studies show a steady increase in the frequency of cervical cancer in women under the age of 40 years. The success of oncogineoology, allow you to perform surgical procedures in some forms of precancerous lesions and cervical cancer in volume, leaves the patient the opportunity to realize the reproductive function. This category includes patients who have had a high amputation or repeated conization and after radical abdominal or vaginal trachelectomy. Subsequently, the carrying of pregnancy is very difficult due to the high frequency of functional failure of the stump of the cervix or uterine-vaginal fistula. Also relevant is the problem of cervical incompetence, as some patients suturing of the cervix in the 2nd trimester of gestation is technically impossible or there is an unsuccessful experience with this technique during pregnancy.

From year 2011 in 70 cases cervical cerclage placement was done. To establish a mesh prosthesis we used different surgical approaches: transabdominal (laparoscopic in 60 cases, laparatomy in 3 patients due to the adhesion process and the combination with the large size of myoma) or transvaginal in 7 cases.

Results
Patients were divided into 3 groups. Group I - 15 patients after radical trachelectomy. Group II - 32 patients who had previously performed the amputation of the cervix, of which two patients was transvaginal cervico-isthmic cerclage during pregnancy at 13-14 and 18 weeks gestation. In the III group included women with miscarriage 22 patients were included in the history and development cervical incompetence, with those two patients performed during pregnancy.

In patients after radical abdominal trachelectomy celebrated as the low rate of spontaneous, and with the use of ART pregnancy. And in 3 of 15 patients with cerclage after trachelectomy pregnancy through IVF was unsuccessful. Two patients in this group were delivered at 31 and 34 weeks of gestation, and 1 patient is pregnant at the moment. In the second group of 11 patients became pregnant, Cesarean delivery was sistematically performed, median gestational age at delivery was 37.4 weeks. The following reproductive outcomes were obtained in group III: pregnancy occurred in 11 patients, Cesarean section was performed in 9 cases, median gestational age was 37.3 weeks, 2 patients are pregnant at present time. In all groups children were born in satisfactory condition.

Conclusions
Based on our results, cervical cerclage is a necessary stage of preconceptional preparation of patients after surgery on the cervix, as well as ineffective correction of cervical incompetence or miscarriage in history.

ES25-0087 - P068
Posters

Demographics in patients undergoing excision of endometriosis and reoperation risk factors over a six year period

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Background
The aim was to determine demographics in a cohort of 108 women undergoing excisional surgery for endometriosis and identify risk factors for patients requiring further surgery.

Methods
Retrospective data collection; chart, electronic and histopathology record review for excisional surgery over six years by two laparoscopic surgeons in the gynaecology department of a United Kingdom District General Hospital. The group comprised 108 women undergoing surgery for suspected endometriosis. The data underwent statistical analysis to identify risk factors for reoperation.

Results
Average age was 31 years, average parity 0 and average BMI 26. Psychomotor co-morbidities coexisted in 41% (n=44) of patients; among these patients 75% (n=33) had psychiatric disorders, mostly depression, 41% (n=18) had irritable bowel syndrome, 11% (n=5) had fibromyalgia and 9% (n=4) had myalgic encephalomyelitis (ME).

34% (n= 37) required more than one laparoscopy, the highest number being 6 laparoscopies in total.

Patients who were 30 years of age or younger were more likely to undergo reoperation during the follow up period (OR 2.47 [95% C.I. 1.08-5.61], p=0.03).

There was no association with operator and reoperation rate (RR 0.96 [95%C.I. 0.55-1.67], p=0.89).

Irritable bowel syndrome seemed to be associated with reoperation but this was not statistically significant (OR 2.33 [95%C.I. 0.83-6.52] p=0.10).

Patients with a diagnosis of depression did not have a statistically significant greater reoperation rate (OR 1.51 [95%CI 0.61-3.72] p=0.36).

A combination of fibromyalgia and irritable bowel syndrome was not associated with increased reoperation rate (OR 1.35 [95%CI 0.21-8.48] p=0.74).

Use of adjunctive hormonal therapy was not associated with reoperation (OR 1.40 [95%CI 0.61-3.15] p=0.41).

Conclusions
Interestingly only age under 30 was associated with a higher reoperation risk; other factors including operator, comorbidities, BMI and parity were not. This information might help doctors advise patients about their reoperation risk and reassure operators that surgical management outcomes are not affected by other factors. There is a perception that patients with comorbidities such as depression, irritable bowel syndrome and fibromyalgia have poorer outcomes but this data suggests that in the presence of confirmed endometriosis risk of recurrence is similar. While this was a retrospective observational study and cannot definitively address these issues, it does provide useful information for clinicians and patients.

ES25-0088 - P069
Posters

Outcomes for patients receiving adjuvant hormonal therapy after initial excision of endometriosis over a six year period

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Background

The aim was to review outcomes in two groups of patients after initial excisional surgery for endometriosis- those receiving adjuvant hormonal therapy and those who did not, over a six year period.

Methods

Retrospective data collection; chart, electronic and histopathology record review for excisional surgery over a six year period by two laparoscopic surgeons in the gynaecology department of a United Kingdom District General Hospital. The cohort comprised 108 women undergoing surgery for suspected endometriosis, 42% (n=45) received adjuvant hormonal therapy after primary laparoscopy, 58% (n=63) did not.

Results

Patients in the adjuvant group were younger (average 29yrs vs 33yrs) (p=0.01) and had more associated psychomotor comorbidities such as IBS, depression and fibromyalgia compared with those not receiving adjuvant therapy, though this wasn't significant (49% vs 35%, p=0.14).

In the adjuvant group significantly more patients had a recurrence of symptoms after their initial surgery (71% vs 33%, p=0.0001). There was a non-statistical difference in average interval between surgery and recurrence between the two groups; 12 months (range 1-144) in the adjuvant group versus 20 months (range 2-144) in the non-adjuvant group (p=0.39).

44% (n=20) required at least one further laparoscopy in the adjuvant group versus 27% (n=17) in the non-adjuvant group (p=0.05) - this almost reached statistical significance.

Conclusions

Overall those patients that had adjuvant therapy were younger and had a higher incidence of pre-existing comorbidities, though this didn't reach statistical significance. They also exhibited a significantly higher rate of symptom recurrence necessitating further laparoscopy. In the overall group however there was no increase in reoperation rate when considering operator, BMI or parity. Accepting that this was a retrospective observational study, it demonstrates that patients receiving adjuvant therapy after primary excision of endometriosis generally had poorer outcomes.

ES25-0096 - P070
Posters

Operative technic and anatomical results after hysteroscopic metroplasty

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Background
Uterine malformation's rate is about 4% in general population. Diéthylstilbestrol in utero exposition is a risk factor of T-shaped uterus. The aim of hysteroscopic metroplasty is to restore normal size and shape to the uterine cavity. This surgery is indicated in case of abortive disease or infertility. Our main criterion in judging is uterine shape and size results. Our second criterion in judging is per and post operative complications.

Methods
This is a monocentric study about restrospective data between 1990 and 2016. T- shaped uterus diagnosis was done with hysterosalpingogram and/or transvaginal three-dimension ultrasound (3D). Metroplasty is a hysterscopic surgery: it consisted in lateral myometrial incision, a fundus incision can be realised in case of arcuate fundus. A sequential oestroprogestative medication was often prescibed after surgery for two or three monthes. For some patients, a silicon strip was used and removed after 2 monthes. Post operative control consists in diagnosis hysteroscopy or transvaginal 3D ultrasound.

Results
110 metroplasty have been realised in Centre Médico Chirurgical et Obstétrical of Hôpitaux Universitaires de Strasbourg during this period. Arcuate fundus has been incised in 65 patients (59%). Per and post operative complications rate is about 4,5% with one cervix laceration, one cervix false path and three post operative synechia. For 20 patients (18,2%), data about anatomical results were missing. About uterine cavity shape : result was judged complete in 85,6% of cases, incomplete in 12,2% of cases, and poor in 2,2% of cases. About uterine cavity size : result was judged good in 82,2% of cases, modest in 15,6% of cases, and poor in 2,2% of cases.

Conclusions
Hysteroscopic metroplasty is a safe surgery when the surgeon is experimented. Post operative results are good concerning uterine cavity size and shape. It is necessary to study the obstetrical futur of this patients.

ES25-0101 - P071
Posters

Laser septoplasty in office hysteroscopy

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Background

Uterine septum is the most common uterine malformation, causing different complications during pregnancy, such as miscarriages (60%) or preterm deliveries (33 %). However, uterine septum has a relatively simple solution such as office hysteroscopy metroplasty.

The Diode laser as an energy source for hysteroscopy has been in use by our unit since 2007. Our Diode Laser has two wavelengths, 980nm with an affinity to hemoglobin and 1470 with a higher affinity to water; by this, a perfect balance between cutting and coagulation is achieve

Methods

We included all consecutive women (n=15) referred to our unit with a complete uterine septum from Jan 2013 to Dec 2015. They all underwent laser hysteroscopy metroplasty, without any anesthesia, in an Office setting, with a 4.3 mm Bettocchi Hysteroscope (Storz).

With the Diode Laser (Leonardo of Biolitec, Germany), we cut using the septum plane in a middle point between the anterior and the posterior uterine walls. A point was marked 10 to 15mm before each ostium as the limit of surgery cutting. Depending on the septum characteristics (thickness) and the procedure time, it was performed in one or two steps.

Results

We included 15 women with a mean age of 33 years. All of them were nulliparous. Nine women (60%) were referred with a previous diagnosis of septum. The rest 6(40%) were referred oriented as infertility of unknown aetiology.

Of the 15 procedures, 78% (12) were finished in one stage and 3 (22%) in two stages.

One case was excluded, due to pain expressed by the patient; she was referred to surgery room where the metroplasty was performed under anesthesia.

In all patients, following AAGL guidelines, a “second look” was performed, in order to look for the presence of adherences.

The procedure was well tolerated in 93% of the cases (13/14), with only 1 women reporting moderate pain. There were no complications
Only two women (2/14; 14%) showed the appearance of lax adherences. All were released with scissors.

	N(%)
No Pain	**12/14 (86%)**
Mild pain	**1/14 (7%)**
Moderate pain	**1/14(7%)**

Regarding perinatal outcomes (data available for 13 women)

● 10 (76.9%) of them became pregnant with 3/10 (30%) miscarriages in the first trimester and 7/13 (54%) had reached to term delivery with a viable neonate.

● One patient became menopausal and decided not to become pregnant.

- Two women are still trying to become pregnant.

Conclusions
Hysteroscopy metroplasty using Diod Laser is a successful alternative to the resectoscope tecnic or odder office tecnics. It has the same effectiveness and broad saifty profile with its simplicity, minimal postoperative sequels, and improves reproductive outcomes; this approach should be recommended for metroplastia.

ES25-0102 - P072
Posters

To evaluate the feasibility and success of mechanical polyp removal in out-patient hysteroscopy settings

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Background
Outpatient hysteroscopy is successful, safe and well tolerated. It is a well-established diagnostic test. Outpatient hysteroscopy is indicated primarily in the assessment of women with abnormal uterine bleeding. Advances in endoscopic technology and ancillary instrumentation have facilitated polyp removal without the need for a general anaesthetic

Methods
This was a retrospective study from the beginning of October 2015 till end of January 2016. There were 100 patients who attended outpatient hysteroscopy with ultrasound diagnosis of query polyp during that period.

Women attended these clinics routinely completed a history sheet. Hospital notes were examined for patient demography, risk factors and previous tests review.

Results
Age range was between between 28-87 years. 55 patients were referred due to peri-menopausal / post-menopausal bleeding. 12 patients attended for heavy menstrual bleeding. 14 patients had intermenstrual bleeding / abnormal uterine bleeding. 14 patients had incidental finding of polyps diagnosed on ultrasound scan due to non-gynaecological reasons. 5 patients attended for unknown reasons.

30 patients had successful removal of the polyps in the outpatient hysteroscopy setting. In 15 patients, it was not possible to perform the polypectomy because they were either too big, broad-based or multiple large polyps. 9 patients were unable to tolerate the examination.

Out of 100 patients, two were diagnosed with cancer. One had well differentiated adeno-carcinoma. The second one had grade 2 endometrioid adeno-carcinoma. The remaining were benign endometrial polyps.

Conclusions
Final result would be presented at the conference. Outpatient hysteroscopy still remains the gold standard method for diagnosis of intrauterine pathologies.

ES25-0104 - P073
Posters

Is it possible to perform all diagnostic hysteroscopies in the outpatient hysteroscopy clinic?

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Background
The purpose of this study was to perform a quality improvement project to assess the viability of increasing the proportion of diagnostic hysteroscopies performed in an outpatient setting, versus those under general anaesthetic; and to establish factors which may determine the choice of operative setting.

Methods
A comparison of two audits of theatre hysteroscopy procedures (at Whipps Cross University Hospital), with an assessment of the trend in the use of both outpatient and theatre hysteroscopies during a period when inclusion and exclusion criteria for outpatient hysteroscopy (OPH) were introduced, with the aim of decreasing the number of procedures performed under general anaesthetic.

Results
Between April-2012 and October-2015 3381 patients underwent hysteroscopies, with a relatively consistent number of procedures per month (average 79.5). There was a significant (P=0.001) change in how diagnostic hysteroscopies were performed (OPH rose by 65.5% and in-theatre hysteroscopies fell by 42.6%). In a one-month audit of patients who underwent theatre hysteroscopies in 2012, 50 patients underwent the procedure of which: 6 (12%) met the exclusion criteria and were unsuitable for OPH; 44 (88%) had no factors that met the exclusion criteria (disregarding patient preference or a failed OPH); 36 (72%) met the inclusion criteria and could have received OPH. In a further audit conducted over two months in 2015, of the 42 patients who underwent theatre hysteroscopies 20 (47.62%) met the exclusion criteria for OPH. Of the remaining 22 (52.38%); nine (21.43%) were unsuitable due to patient preference, for five (11.90%) no reason was recorded and eight (19.05%) were booked under general anaesthetic to prevent breaches of suspected cancer targets.

Conclusions
Hysteroscopies have been performed in the outpatient setting in increasing numbers, resulting in reduced risks to the patient, faster, cheaper treatment, and shorter recovery times. There has been a marked improvement in documenting the justification for the chosen referral option. This suggests an increased awareness of the inclusion and exclusion criteria for OPH by staff and promotion of OPH to patients. This improvement was achieved by improving patient awareness of OPH, and changing the attitudes of clinicians. This was accomplished by designing patient leaflets, using local press, presenting success stories and data at the governance meeting, as well as updating hospital policy for OPH referrals and increasing outpatient hysteroscopy clinic capacity. More could be done to increase further the number OPH referrals, including providing dedicated time in clinic for treatment where cancer is suspected, and further normalisation of OPH for patients. Consideration could be given to introducing a see-and-treat clinic model, and requiring the reasons for general anaesthetic referral to be recorded. Patient-acceptance of OPH should increase over time, removing the need for diagnostic hysteroscopy to be done under general anaesthetic without medical need.

ES25-0112 - P074
Posters

Comparison between laparoscopic and vaginal isthmocele repair in improving prolonged menstruation caused by cesarean scar defect

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Background
Cesarean scar defect (CSD), which is documented as an isthmocele on ultrasound, can cause prolonged menstruation. Isthmocele repair by laparoscopic and vaginal method are both effective approaches to improve this symptom. This study aims to compare the efficacy between laparoscopic and vaginal isthmocele repair in improving prolonged menstruation caused by cesarean scar defect, as well as their surgical invasion.

Methods
This is a retrospective cohort study. The patients were diagnosed by transvaginal ultrasound and other causes of bleeding were excluded by diagnostic curettage. The patients were grouped by the surgery (laparoscopic or vaginal isthmocele repair) they underwent and were followed up at least three month after surgery about duration of menstruation. Other medical data were collected from medical records.

Results
Totally 169 patients who underwent surgery in our hospital between March 2012 and June 2015 were retrospectively analyzed. 122 of them underwent laparoscopic isthmocele repair and 47 of them underwent vaginal isthmocele repair. No significant statistical differences were found between laparoscopic and vaginal isthmocele repair groups in patient characteristics including age (median, 34 versus 33 years, p=0.182), age of last cesarean (median, 28 versus 28 years, p=0.705), duration of menstruation before cesarean (median, 6 versus 6 days, p=0.858) and duration of menstruation after cesarean (median, 15 versus 14 days, p=0.542). After surgery, The median duration of menstruation was 8 days in laparoscopic repair group and was 9 days in vaginal repair group, both were largely reduced from those before surgery (p=0.000). The cure rate (duration of menstruation <=7 days after surgery) was 45.1% (55/122) in laparoscopic repair group and was 44.4% (20/47) in vaginal repair group. The effective rate (duration of menstruation <=10 days after surgery) was 75.4% (92/122) in laparoscopic repair group and was 74.5% (35/42) in vaginal repair group. No statistical differences were found between groups in cure rates (p=0.899) and effective rates (p=0.767). Compared with laparoscopic repair, vaginal repair had advantages of shorter operative time (median, 60 versus 81 minutes, p=0.001), faster recovery of intestinal activity (median, 19 versus 24 hours, p=0.010) and lower medical expenses (median, 9081.17 versus 12487.75 ¥, p<0.05).

Conclusions
No statistical differences are found between the effect of laparoscopic and vaginal isthmocele repair in improving prolonged menstruation caused by CSD, whereas vaginal repair is less invasive than laparoscopic method.

ES25-0126 - P075
Posters

Hysteroscopic treatment of uterine cavity disorders in infertile women

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Background
The aim of this study was to assess the efficacy of operative hysteroscopy in the treatment of uterine cavity disorders associated with female infertility, based on the recurrence rate of the disorder six months postoperatively.

Methods
A prospective study was done. The study population consisted of 94 infertile patients with some form of uterine cavity disorder. Two-dimensional (2D) transvaginal ultrasound, hysterosalpingography, and in some cases, three-dimensional (3D) transvaginal ultrasound, were used to establish the indication for diagnostic and operative hysteroscopy. Diagnostic and operative hysteroscopy were performed at the same time as one procedure. Disorders of the uterine cavity included the following: endometrial polyps (51 patients); submucous fibroids (a total of 23 patients including 12 with Type 0, 8 with Type 1 and 3 with Type 2); uterine septum (a total of 16 women including 6 with complete septum and 10 with a partial septum); intrauterine adhesions (a total of 4 women, including 3 women with minimal disease and 1 woman with sevre disease). Congenital uterine anomalies were classified using the ESHRE / ESGE classification system. Submucous fibroids were classified using the ESGE classification system. Operative hysteroscopy was performed under general anaesthesia with dilation of the cervical canal and distension of the uterine cavity with normal saline solution as the medium. Resection was performed using a bipolar resectoscope. The success of operative hysteroscopy was evaluated based on the recurrence rate of uterine cavity disorders six months postoperatively.

Results
Fifty-six women had primary infertility, while 38 women had secondary infertility. The following hysteroscopic procedures were done: polypectomy (51 women); myomectomy (23 women); metroplasty (16 women); intrauterine adhesiolysis (4 women). Intraoperative complication rate was 2.12% (2 of 94 women), and uterine perforation was the complication in both caases. The overall recurrence rate of uterine disorders six months postoperatively was 7.44% (7 of 94 women). Recurrences were diagnosed in 7.84% (4 of 51) of women after polypectomy, in 8.68% (2 of 23) of women after hysteroscopic metroplasty, and in 6.25% (1 of 16) of women after hysteroscopic myomectomy. A second-look hysteroscopy was performed in women with recurrence of the uterine cavity disorder, followed by the appropriate hysteroscopic procedure. Spontaneous pregnancy occurred in nine of 94 women (9.57%) in the first six postoperative months.

Conclusions
Operative hysteroscopy is a safe and effective method for treatment of uterine cavity disorders in infertile women.

ES25-0127 - P076
Posters

Histeroscopic resection of submucous fibroids in infertile patients

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Background
The aim of this study was to evaluate the efficacy of hysteroscopic myomectomy in infertile patients with a submucous fibroid using a conventional bipolar resectoscope.

Methods
A prospective study was conducted at the Department of Infertility in a tertiary Obstetrics and Gynecology Clinic “Narodni Front”, Belgrade, Serbia. The study population consisted of 67 infertile patients diagnosed with a submucous fibroid. The diagnosis of a submucous fibroid was established using 2D transvaginal ultrasound. Hysteroscopy was indicated in submucous fibroids measuring ≤ 6cm. Hysteroscopic myomectomy using the conventional bipolar resectoscope was performed in all patients. The endometrial cavity was distended using normal saline (0.9% NaCl) as the distention medium. Histopathological analysis of the resected fibroids confirmed the definitive diagnosis of a submucous fibroid. The following baseline characteristics were recorded for all patients: age, type of infertility, duration of infertility, fibroid symptoms, fibroid location in the endometrial cavity, fibroid size, and number of fibroids in the endometrial cavity. The following operative and postoperative outcomes were analyzed: associated hysteroscopic findings, complications of the procedure, histopathological results and fibroid recurrence six months postoperatively. All of the collected data was statistically analyzed, and conclusions were drawn based on the results of these analyses.

Results
The average age of patients was 33±2.5 years. Thirty-nine (58.21%) of 67 patients had primary infertility, while 28 (41.79%) patients had secondary infertility. Symptoms of a submucous fibroid were present in 21 (31.34%) patients. Intermenstrual bleeding was reported by 16 (23.88%) patients, while five (7.46%) patients complained of pelvic pain. Submucous fibroid was the only cause of infertility in 18 (26.86%) patients, while 49 (73.13%) patients had one additional or several factors contributing to infertility. Submucous fibroids were classified as intracavitary (Type 0) in 25 (37.31%) cases, as <50% intramural (Type 1) in 33 (49.25%) cases, and finally as >50% intramural (Type 2) in nine (13.43%) cases. Forty-eight (71.64%) patients had a submucous fibroid measuring < 3cm, while 19 (28.35%) had a submucous fibroid measuring between 3 and 5 cm. The location of the submucous fibroid had the following distribution: anterior uterine wall in 25 (37.31%) patients; posterior uterine wall in 31 (46.26%) patients; lateral uterine wall in 11 (16.42%) patients. A single submucous fibroid was found in 59 (88.05%) patients, while 8 (11.94%) patients had two submucous fibroids. The submucous fibroid was associated with an endometrial polyp in six (8.95%) patients. Recurrence of a submucous fibroid was diagnosed in four (5.97%) patients six months postoperatively, and was followed by hysteroscopic myomectomy.

Conclusions
Bipolar resectoscope is an effective to perform transcervical hysteroscopic resections of submucous fibroids.

ES25-0130 - P077
Posters

Severe ureteral endometriosis and silent loss of renal function – 6 cases of laparoscopic nephrectomy

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Background

Ureteral endometriosis occurs in approximately 1% of pelvic endometriosis cases.
Severe ureteral endometriosis is frequently associated with deep rectovaginal endometriosis and can potentially lead to urinary tract obstruction, ureterohydronephrosis and, more rarely, silent loss of renal function.
The main goal of intervention is kidney function recovery, when possible. A nonfunctioning kidney with persistent hydronephrosis is a risk factor for hypertension, pyelonephritis and nephrolithiasis. Few cases of ureteral endometriosis with severe kidney impairment have been reported.

Methods

We performed a retrospective review of cases of women with ureteral endometriosis and unilateral renal loss, submitted to a laparoscopic surgical procedure involving nephrectomy between January 2011 and January 2016. We reviewed clinical presentation, imaging findings, surgical management and postoperative outcome.

Results

Six patients were identified, all referred for severe dysmenorrhea, dyspareunia and dyschezia. Only one patient had complains of cyclic low back pain. Physical examination was suggestive of deep endometriosis.
Imaging documented nodular rectovaginal endometriosis, unilateral ureterohydronephrosis, significant renal cortical atrophy and negligible renal function in all cases.
Laparoscopic adhesiolysis, ureterolysis, ovarian cystectomy and partial intestinal resection were performed when adequate. Unilateral nephrectomy and excision of rectovaginal nodule were performed in all cases. One patient was additionally submitted to total laparoscopic hysterectomy because she has already been submitted to bilateral oophorosalpingectomy in other institution.
Regarding complications, a case of pyelonephritis and another one of urinary retention was registered, the latter requiring bladder neurostimulation 2 years after surgery

Conclusions

As illustrated by the present series, patients with renal function loss as a consequence of ureteral endometriosis frequently do not show urological symptoms. This emphasizes the need to evaluate urinary tract involvement in patients with deep infiltrative rectovaginal endometriosis. Nephrectomy should be considered for significant renal impairment associated with persistent ureterohydronephrosis.

ES25-0134 - P078
Posters

Laparoscopic adnexal surgery – Which patient, which procedure? A review of 136 surgeries, a single surgeon's experience

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Background

- To assess the risk profile of patients selected for laparoscopic adnexal surgery – including age, BMI and past surgical history
- To identify the indication for, and frequency with which, various laparoscopic adnexal procedures are being performed
- To review the post-operative length of stay, complication rates and histopathology results

Methods

A retrospective patient case-note and electronic review was performed within the Gynaecology Department of a District General Hospital within the United Kingdom. Patients undergoing laparoscopic adnexal surgery under the care of a single surgeon between 2008 and 2014 were included. With the exclusion of ectopic pregnancies, a total of 136 patients were identified.

Results

The mean age of patients undergoing laparoscopic adnexal surgery between 2008-2014 was 40 years (range 20 - 81). The average BMI was calculated as 26kg/m2, with the highest BMI being 44kg/m2 (range 18-44). Previous laparotomies had been performed on 63/136 (46%) patients.

Bilateral salpingo-oophrectomy was the most common operation – performed in 69/136 (51%) of patients. Unilateral adnexectomy accounted for 31/136 (23%) of surgeries; unilateral cystectomy 22/136 (15%); endometrioma cyst ablation 9/136 (7%); and bilateral cystectomy 5/136 (4%).

Pain was the most common indication for surgery, documented as the primary reason in 97/136 (71%) of cases. Prophylactic surgery in the context of a strong family history of breast or ovarian cancer, a personal previous history of breast carcinoma and/or oncogene carriers for BRCA 1/2 accounted for approximately one quarter of cases 35/136 (26%). Miscellaneous indications were cited in 4/136 (3%).

The most common pathological cyst identified was serous cystadenoma 41/136 (30%); followed by dermoid in 14/136 (10%), endometrioma in 14/136 (10%) and mucinous cystadenoma in 12/136 (9%). There were 3/136 (2%) unexpected malignancies – two tubal and one ovarian. A CA125 level had been performed in 71/136 (52%) patients – returning as elevated in 17/71(24%) of these cases, but in only one of the malignancies.

24-hour patient discharge was achieved in 81/136 (60%) of cases. There were no major complications.

Conclusions

This overview of patient selection and outcomes demonstrates that laparoscopic adnexal surgery can be carried out successfully and safely; including in higher risk populations with raised BMI and history of previous laparotomy. Bilateral adnexal surgery was common. No major complications occurred and length of inpatient stay was short. Whilst the majority of findings were benign, unexpected malignancy was seen and so patients should be counselled accordingly and appropriate intra-operative care taken.

ES25-0141 - P082
Posters

The objective assessment of initial reconstructive tension during Laparoscopic Sacral Colpopexy (LSC)

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Background
The incidence of pelvic organ prolapse (POP) tend to be increasing in the aging society. LSC become increasingly popular as minimally invasive pelvic reconstructive surgery because of safety, efficacy and high patients' satisfaction. The POP-Quantification score is standardized as clinical assessment of POP. On the other hand, there has been unreported if the initial reconstructive tension during LSC is both necessary and sufficient. It is well known how much tension should be applied to mesh at the time of graft. The aim is to assess the initial reconstructive tension during LSC.

Methods
Women who underwent laparoscopic sacral colpopexy due to POP were subjected in our hospital. The operator was unified by one person, who has been responsible for this surgical procedure until now.
〈Measuring procedure〉 First, we string the cervix with an absorbable suture in order to measure the tension outside of surgical field, then fix the mesh to the sacral promontory, after that pull the suture in the straight angle with fixed mesh until burdening it, finally measure the tension using a spring scale.

Results
In 10 cases, the mean tractive power was 400g(230g-600g). In the all cases, there was no recurrence patient due to too little traction, and there was no one who had pains and other complications due to excessive traction.

Conclusions
We demonstrated to be able to assess the initial reconstructive tension during LSC. It is considered that tractive power is important indicator to assist the operator. After this study, we would check the recurrences and complications and it is capable of objective assessment when tugging in the future.

ES25-0146 - P083
Posters

Laparoscopy vs. Laparotomy in niche repair

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Background
Rate of Caesarean sections in our clinic is 24,5%. Scar defect after C\S was detected in 87 cases from 2010 till 2015

Methods
At last 5 years on preconception stage 110 patients with scar incompetence after cesarean section was treated in our institute. Indication for surgical treatment were niche with preserved myometrial thickness less then 3mm scar inconsistency and puerperal endometritis complicated by abnormal uterine scar healing. In all cases we did office hysteroscopy with concomitant ultrasound investigation with measurement of blood flow and scar condition.

Results
Lower segment reconstruction was done in 60 patients by laparotomy, 50 by laparoscopyc aproach. 11 pregnancies with 10 term childbirths were registrated – 10,3% in LT groupe, 10 in LS groupe.

Conclusions
The most often reason of uterine scar incompetence is abnormal healing, puerperal endometritis. Ultrasound investigation of scar condition with hysteroscopy allowed to identify patients who can be treated with uterus preservation in puerperal by laparotomy and delayed period by laparotomyc and laparoscopyc aproaches.

ES25-0147 - P084
Posters

Reproductive outcomes of myomectomy. Long term follow up

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Background

Incidence of uterine fibriods in women population is 25%. At the age of 35 years the incidence increased to 52%, but only 20% of all fibroids became symptomatic. Pregnancy rate in patients with fibroid related uterine cavity deformation is 14%, and pregnancy loss rate is 46.7%.

Methods

We study results of 721 myomectomies from 2010 till 2014. Observation period was 14-76 months. Average diameter of maximal size fibroid was 43,25мм. Average uterine size was 8,46 weeks. Subserosal location (type 7 FIGO) was detected in 295 cases (40,7%), submucosal location was identified in 7,76% cases, type 1 in 11,2%, type 2 in 15,1% of patients. Intramural location of fibroids (type 5-6 FIGO) was detected in 43,5% cases. In 51,8% cases fibroids were located on anterior uterine wall, in 55,3% cases on posterior wall, in 28,7% cases fibroids were located in uterine fundus.

Results

Laparoscopyc myomectomy was done in 502 patients (69,6%), laparotomic access was required in 13% cases. Hysteroscopic myomectomy was performed in 141 (19,9%) patients. In 26 (3,6%) cases combined access was required. Conversion was detected in 7 (0,97%) cases, 3 of them from laparoscopy to laparotomy. In 468 (64,9%) procedures fibroids removal was possible from one myotomic incision, from 2 incisions in 16,6% cases, from 3 incisions fibroids were removed in 8,6% cases. Surgical results show one major complication. It is uterine rupture at 36 week gestation in patient who underwent tanscervical myomectomy and prior to hysteroscopy uterus perforation.

68% of patients wish to be concept. Infertility was detected in 48,3% cases. Among pregnant patients 69% became pregnant spontaneously, 31% by ART. 74,7 % delivered by cesarean section, 25,3% vaginal labour.

Conclusions

Myomectomy in symptomatic myoma is a safety procedure with low rate of complications. PR after myomectomy among infertile patients is above 51%.

ES25-0151 - P085
Posters

Evaluation of the learning curve in intracorporeal suturing for laparoscopic myomectomy

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Background
The use of intracorporeal suturing is a significant component of the learning curve for laparoscopic myomectomy. This approach requires a high surgeons' skills level for optimal performance. The purpose of this study is to assess the learning curve in laparoscopic intracorporeal suture hands-on physical simulator using a inorganic uterus model.

Methods
In this study 5 right-handed gynecologists with basic-experience (less than 10 interventions) on laparoscopic intracorporeal suturing were included. All surgeons performed 6 intracorporeal laparoscopic sutures in a dry laboratory using aninorganic uterus model. Subsequently surgeons performed a laparoscopic myomectomy at the wet laboratory, employing ovine model. The suture and knot-tying total execution time as well as a checklist (binary evaluation of 29 *items)* were evaluated in 3 sutures.

Results
A total time decrease was observed in all registered data. This decrease was more pronounced in the comparison between the first suture at the *dry lab*, and the third suture in alive model (8,34 ± 3,97 *vs* 4,31± 1,3; *p*= 0,037).

Moreover, the assessment *checklist* showed a significant increase in the average score when we compared the first simulator suture and the third suture at the *wet lab* (22,5 *vs* 26,3; *p*=0,047).

Conclusions
The laparoscopic training with inorganic uterus model decreases the suturing time and improves the checklist score in alive model.

ES25-0152 - P086
Posters

Phantom hCG and adnexial mass: diagnosis after laparoscopy

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Background
A recent phenomenon of the false-positive 'phantom hCG', has been noted in both laboratory and clinical medicine, estimated to occur in 1/1,000 to 1/10,000 tests. These false-positive results may lead to confusion and unwarranted treatment. There are two major causes of phantom hCG immunoreactivity: proteolytic enzymes and heterophilic antibodies mimicing hCG. Here, we present a case of phantom hCG who was suspected to have an ectopic pregnancy and accurately diagnosed after laparoscopy.

Methods
The total β-hCG assay used is a two-step Chemiluminescent Microparticle Immunoassay (CMIA) technology with flexible assay protocols (ARCHITECT total β-hCG Reagent Kit, Abbott, USA).

Results
A twenty-five years old nulligravid woman presented with secondary amenorrhea and positive hCG (177 mIU/mL). Her physical examination was uneventfull. Transvaginal ultrasound revealed linear endometrium (5 mm) and a 2 cm in diameter adnexial mass on the left side. Her consecutive results yielded 190, 193, 166 mIU/mL 3, 7 and 15 days after the initial hCG test. Endometrial sampling revealed no chorionic villus at histopathology. Methotrexate (Mtx) was administered (50 mg/m^2) assuming a pregnancy of unknown localisation. Due to persisting levels of hCG at the 7th day of Mtx treatment, the patient had the second dose (50 mg/m^2). However, hCG was still 155 mIU/mL at the 7th day of second dose. Diagnostic laparoscopy was perfomed. Both fallopian tubes were normal and a thick walled dermoid cyst was observed upon incision In the left ovary. The cyst was completely removed inside an endobag, of which pathology reported a mature cystic teratoma. The follow-up of hCG levels after the operation revealed positive results (< 200 IU/mL). Immunohistochemistry analysis for trophoblastic activity in the cyst which yielded negative results. Thereafter, the blood sample was sent to five different laboratories for β-hCG assay where three reported negative results. Urine analysis for hCG was also negative.

Conclusions
To determine the meaning of persistent low levels of hCG, differential diagnosis of an early intrauterine or ectopic pregnancy and gestational trophoblastic neoplasia is needed. However, a laboratory false positive or pituitary hCG can also cause persistent low levels. The hCG tests depend on antibodies from various animals. If present, human antibodies against animal antibodies (HAAA) can cause false positive hCG results as in this case. HAAA are large molecules which fail to cross the glomerular basement membrane and there will be no detectable hCG in the urine. Likewise, the urine test in this case was negative which supports HAAA. As different commercial assays from five laboratories were negative in three alternative tests, we presumed phantom hCG. Such patients should be warned about risk for recurrent false positive hCG assay results and this should be noted in their medical records.

ES25-0154 - P087
Posters

Feasible, low-cost biomodel for training hysteroscopy

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Background

Hysteroscopy is a routine procedure in gynaecological endoscopy. training operative technique can reduce severe complications and make the procedure safer and cost-effective. There are lot of possibilities for training, included simulators and biomodels. Having appropriate conditions, like fluid distension, pressure of a real-life hysteroscopy is a challenging task for all these instruments.

Methods

Biomodel was constructed by using a turkey heart which is in size and structure simulates the human uterus. After the ligation of the pulmonary vessels and the caval veins, a tube was installed in the aorta functioning as a trocar. Through this trocar resectoscope could be inserted in the cavity of the heart without destructing the tissues.

Results

Basic techniques of hysteroscopy can be performed using a prepared turkey heart as a biomodel. The cost of this novel model is minimal, especially compared to the virtual reality trainer instruments. This model also provides a variety of real-life situations and most importantly the basic knowledge of the hysteroscopic equipment. Having irregular cavity, turkey heart is proper for training viewing and visualizing. Surrounding it by conducting structure, appropriate usage of electrosurgical instruments can be trained as well.

Conclusions

This low-cost model provides realistic and accurate tissue resistance and it is anatomically more lifelike than the other biomodels as an endoscopic training tool. This model facilitates to improve the basic hystreoscopic skills in gyneacological surgery.

ES25-0155 - P088
Posters

Spontaneous vaginal drainage of appendicitis in a 7-month-old patient

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Background
Case Report

We report the case of a 7-month-old girl presenting to our emergency department for fever, diarrhea and poor general appearance. Medical history was unremarkable. Clinical examination upon admission described a lethargic child and presence of inflammatory cutaneous nodes on her torso and right thigh. Lab results were significant for elevated inflammatory markers. Cardiac and abdominal ultrasounds were within normal range apart from a mild enlargement of the appendix and of the bladder posterior wall.

Methods

Due to worsening symptoms and increasing hemodynamic instability, the patient was transferred to our pediatric intensive care unit (PICU). Subcutaneous growths were biopsied and pathology revealed pyocyanic metastatic abscess. On day 6 of hospitalization, a gynecologist was called after foul vaginal discharge was noticed. At that time, the patient was dyspneic and had a diffusely tender abdomen with general abdominal pain and distension. Pelvic ultrasound revealed the presence of unknown material behind the bladder and an enlarged uterus given the patient's age. Presence of a foreign object was suspected due to vaginal discharge, however vaginoscopy ruled out this hypothesis. Because the patient looked even more uncomfortable when the probe was on her abdominal right side, a radiologist performed a subsequent ultrasound that was concerning for appendicitis.

Results
Our pediatric general surgeon performed an emergency exploratory laparoscopy. Appendix was tightly adhered to the right fallopian tube. After careful dissection, appendectomy was performed, abdominal cavity thoroughly rinsed, and the right tube appeared healthy. Pathology analysis confirmed the final diagnosis of pyocyanic sepsis originating from acute appendicitis with peritonitis, secondary salpingitis and vaginal discharge and pyoderma gangrenosum

Conclusions
Appendicitis is responsible for the majority of emergency laparoscopy in children. Four in every thousand children will be treated for appendicitis before the age of 14. Appendicitis in infants is uncommon although potentially fatal and its diagnosis is challenging because of atypical symptoms that vary from lethargy to irritability, tachycardia, diarrhea and hypotension. Delayed diagnosis leads to higher risks of appendicitis rupture, peritonitis and mortality. Pediatric patients, especially infants, are difficult to examine because of their fear as well as their inability to communicate clearly. Moreover studies show a higher incidence of perforated appendicitis in young children compared to adults.

Vaginal discharge in young children is one of the most common gynecological complaints for that age group. Vulvovaginitis can be caused by exposure to irritants, poor hygiene, intravaginal foreign bodies, low estrogenic state and/or specific pathogens.It can be benign, but in case of persisting symptoms despite antibiotics or recurrent vaginal discharge, one should suspect intravaginal foreign object.

ES25-0160 - P089
Posters

Complications after laparoscopy in multiple dermoid cysts: A case report

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Background

To describe a clinical case in which the laparoscopic approach of a benign pathology (dermoid cysts) produced a high morbidity for the patient.

Methods

The mature cystic teratomas or dermoid cysts are the most common benign ovarian tumors. Their incidence reach up to 5-25%, they could be bilateral in 10-15% of the cases and usually they are asymptomatic, but occasionally they could manifest with pain or bloating. These kind of tumors are derived from three embryonic cell lines and may contain sebaceous tissue, hair, bone or cartilage tissue and sometimes gastrointestinal tissue. We describe a case of a patient with multiple bilateral dermoid cysts and the evolution after a conservative approach through laparoscopy.

Results

Woman 37 years old, G0, who came for the first time to a gynecology check due to abdominal pain. Using ultrasound we observed diffusely echogenic cysts with posterior sound attenuation in both ovaries. We perform a study of ovarian tumor extension that began with Doppler ultrasound, finding multiple masses with low-level echogenic tracts with solid-cystic areas in both ovaries. The MRI scan revealed three masses in left ovary around of 62x54mm and other three in right ovary, most of around 78mm. The tumor markers were negative. To preserve healthy ovarian tissue, we perform a multiple laparoscopic cystectomy in both ovaries. During the procedure we found that the cysts had thin capsule and very liquid fat content, despite this difficulty we decided to continue with the laparoscopic approach, removing five dermoid cysts in the right ovary and three on the left ovary; but some of the cysts were ruptured shedding their content, mainly fat and hair, into the peritoneal cavity. We performed a profuse washing of the cavity. The patient presented ileus and was under observation in hospital thee days, without other clinical or analytical manifestation. Four days after being discharged the patient returned with abdominal pain and ileus. She was hospitalized and started antibiotic treatment with suspected a tubo-ovarian abscess. Due to the marginal improvement after few days of antibiotic treatment, laparoscopic reoperation was required. The second procedure evidenced an intense aseptic chemical peritonitis, which required profuse washing and loosed the adhered tissue. The patient was hospitalized for a week until full recovery. The pathological study of the cystectomy piece confirmed that the cysts were benign

Conclusions

The laparoscopic cystectomy of dermoid cysts can be a complex surgery that could lead to postoperative complications difficult to resolve. It reveals the necessity of an appropriate surgical approach to prevent such complications. For the described case, it is possible that the conversion to open surgery during the procedure would reduce the morbidity and hospital stay.

ES25-0166 - P090
Posters

Hysteroscopic management of life-threatening post-abortion hemorrhage

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Background

Post abortion hemorrhage (PAH) accounts for 40% and 14% of mortality in the 2nd and 1st trimester respectively due to uterine atony, uterine laceration or perforation, abnormal placentation, retained products of conceptions (RPOC) and coagulopathy. Management includes uterotonic medications, blind re-aspiration or endometrial curettage, gauze uterine packing or balloons endometrial tamponade, uterine artery embolization (UAE) and hypogastric artery ligation or save-life hysterectomy. Recently, hysteroscopy technique has been successfully experienced for stable patients affected by RPOC, placenta accreta and cesarean scar pregnancy (CSP). In patients suffering for severe and/or emergency PAH, hysteroscopy management has never been described so far. Herein, we present a series of three patients with PAH managed by primary hysteroscopy surgery

Methods

Three patients were admitted to our department for medical therapy with prostaglandins, for viable pregnancy termination at 20 weeks in one case and uterine emptying due to first trimester missed abortion in two women. Two patients were re-admitted because of secondary PAH and in one patient primary PAH occurred after starting medical therapy. Based on ultrasound examination, a diagnosis of RPOC were made and all patients were managed firstly by emergency resectoscopic surgery

Results

After blood clots removal and the achievement of endometrial cavity, in two patients we found an endometrial mass consistent with RPOC caused by an abnormally adherent placenta. In the third woman the cause of hemorrhage was an underestimated cesarean scar pregnancy. After selective removal of placental tissue by using either mechanical blunt loops and electrosurgical cutting and coagulating to achieve a cleavage plane to separate placenta, a satisfactory hemostasis was achieved. All patients received blood transfusion. Neither intra-operative nor post-operative complications were reported, no further treatment were needed and the patients were discharged within 72 hours from interventions

	Patient 1	**Patient 2**	**Patient 3**
age (years)	36	37	19
parity	G0P0	G3P2	G1P1
obstetric hystory	-	2 term vaginal birth, one D&C post miscarriage	one cesarean delivery
gestational age (weeks)	20	9	8
cause of pregnancy termination	fetal omphalocele	missed abortion	missed abortion
medical pregnancy termination	vaginal misoprostol 400 mgc every 3 hours to 3 administrations	vaginal gemeprost, 1 mg every 3 hours to 5 administrations	vaginal gemeprost, 1 mg every 3 hours to 5 administrations
type of PAH	secondary (23 days)	secondary (18 days)	primary (3 hours)
hemoglobin before intervention (g/dL)	7.4	6.0	6.5

Beta-HCG before intervention (mUI/ml)	4	301	-
estimated blood loss	-	-	1800 ml
hemoglobin at discharge (g/dL)	9.9	10.2	9.0 gr
operating times (min)	45	40	32
deficit of saline (ml)	300	250	400
hysteroscopy diagnosis	adherent placenta	adherent placenta	type 1 CSP

Conclusions

Although discouraged in patients with heavy ongoing uterine bleeding, resectoscopic surgery may be considered as an option among conservative therapy in patients with life-threatening PAH

ES25-0171 - P091
Posters

Successful surgical management of a case of Asherman syndrome and litterature review

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Background

Asherman syndrome is defined by the presence of intrauterine adhesions, causing infertility, and oligo-amenorrhea. It is a real problem especially in young patients who wish to procreate. Surgical treatment is sometimes disappointing. The aim of the presentation is to describe the successful management of a case of severe Asherman syndrome and review in the literature, the recommendations in the prevention and management of this syndrome.

Methods

We report the case of a 28 years old patient, with severe Asherman syndrome after curettage performed for retained placenta following a caesarean delivery. She underwent 3 successive operative hysteroscopy with the use of hyaluronic acid. Satisfactory results were obtained on the uterine cavity and tubal patency, and a pregnancy was obtained.

We systematically searched the literature for studies that prospectively or retrospectively assessed the surgical management of Asherman syndrome with surgery outcome; methods used for prevention of adhesion recurrence: IUD, balloon stent, foley catheter, Hyaluronic acid and other anti-adhesion barriers and post-operative estrogen. The role of repeat hysteroscopy. We used the Cochrane's Evidence page, Pubmed, UpToDate for the research.

Results

This syndrome mainly occurs after trauma to the gravid uterine cavity, which leads to the formation of intrauterine and/or intracervical adhesions. Despite advances in hysteroscopic surgery, the treatment of moderate to severe Asherman syndrome still remains a challenge. Hysteroscopic adhesiolysis can restore a healthy uterine cavity sometimes after more than one attempt.There is no high quality data regarding the efficacy of each method used for prevention of adhesion reformation after hysteroscopy. The outcome appears better with the used of intrauterine balloon combined with post-operative estrogen therapy based on limited data.

Conclusions

There is still no clear consensus regarding the optimum surgical management of Asherman syndrome. Use of ultrasound during the surgical procedure to prevent false passage is helpful in severe cases. According to the literature, the use of post-operative intra uterine balloon and estrogen therapy seems to be more helpful than the used of intra uterine device or intra uterine instillation of hyaluronic acid gel.

ES25-0173 - P092
Posters

CA-125 levels in ruptured ovarian endometrioma

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Background
Endometritic cyst rupture is the emergent presentation of endometriosis. A diagnosis is occasionally difficult because of the absence of classical symptoms and ultrasonographic images. Obliteration of the pouch of Douglas inhibits the classical ultrasonographic signs of pooling of the cyst content and the semi-liquid nature of the residual endometriotic fluid, which remains largely on the pelvic organs rather than moving freely on the peritoneum; this situation may result in less irritation (1). A sudden increase in CA-125 after endometrioma rupture has been reported in studies and may be helpful in diagnosing suspicious cases with reduced clinical signs and symptoms (2). The level of CA-125 may increase from factors of tens to thousands in cases of endometrioma rupture or leakage of the cyst content.

Methods
We present two cases of endometrioma rupture with their signs, symptoms, ultrasonographic comments and two consecutive CA-125 levels on first and the 15th days after admission, respectively.

Results
PATIENT A: A 37-year-old woman presented nausea without vomiting and minimal abdominal pain. Her complaints had persisted for 48 hours, and her body temperature was 39.2°C upon admission. She had been followed for endometrioma for four years and had not undergone endometriosis surgery. A physical examination confirmed pain during deep palpation of the lower pelvis. A transvaginal ultrasonography revealed a 6-cm endometrioma on left side and no fluid in the pouch of Douglas there or on other parts of her pelvis. Her white blood cell count and CRP were within normal limits. The first CA-125 level was 1800. Her acute complaints subsided, and her fever resolved within 18 hours with expectant treatment without hospitalization. The CA-125 units/ml was decreased to 350 units/ml on the 15th day.

PATIENT B: A 39-year-old woman presented severe abdominal pain, no nausea/vomiting, no fever. Pelvic examination could not be completed because of severe pain. She had an cysectomy for endometrioma three years ago. Transvaginal ultrasonography revealed three endometriomas on right ovary with the diameters of 1x1, 1x1.5 and 2x3 cm, respectively. Minimal fluid pooling in the pouch of douglas was present. Her white blood cell was in normal limit, CRP was increased (195 mg/L) and first Ca 125 measurement was 210 units/ml. She was hospitalised and complaints resolved at 40th hour of expectant management. Her Ca 125 level decresed to 85 units/ml on the 15th day.

Conclusions
Endometriotic cyst rupture is rare and diagnosis is occasionally difficult because of the absence of classical symptoms and ultrasonographic images. Increased CA-125 levels may support the diagnosis and needs to be repeated after about two weeks to observe the rapid decrease which is the stong evidince for the diagosis.

ES25-0175 - P093
Posters

Office operative hysteroscopy service – remarkable clinical success and outstanding women satisfaction

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Background
In the past decade, office operative hysteroscopy became the gold standard in managing uterine cavity problems in the UK. One of the challenges that face such service is reducing pain and anxiety, and maintaining optimal communication with women to maximize satisfaction. This pilot study was conducted to evaluate the contemporary office hysteroscopy set up that was established in 2011 with workload of 700 cases per annum. We offer diagnostic as well as operative hysteroscopy service including; Myosure, Versapoint, Novasure, Thermachoice and Thermablate technologies.

Methods
This pilot study has 2 parts: (1) A retrospective review of electronic records of 141 women (mean age=43.9 years) underwent office NovaSure endometrial ablation from 1st May 2011 till 31st October 2015 (follow-up period of 2-55 months), and (2) A 10-itemed patient satisfaction questionnaire was prospectively handed to all women (*n*=100) attending the office hysteroscopy service from 1st October 2015 to 31st January 2016. All questions were answered using visual analogue scale (score 0-10).

Results
The majority of women (*n*=112, 79%) undergoing NovaSure ablation did not required any further treatment following the procedure. Twenty nine women (21%) were re-referred to see a gynaecologist with abnormal menstruation or dysmennorhoea; 14 (10%) underwent hysterectomy and 15 were managed either conservatively or medically. As regards the survey, all women completed and returned the questionnaire. In total, 93 women recorded an overall acceptability score of ≥8 stating they will have the same procedure repeated if clinically needed in the future, and 97 would recommend it to their friends. All women affirmed that the staff were welcoming and supportive, the procedure was well explained and dignity was maintained during the procedure (score = 9-10). Although 17 women described the pain experienced during the procedure to be severe (score ≥8), 15 stated that it settled immediately after the procedure. All these women were either reported to be very anxious prior to the procedure (score ≥8) or were in the Novasure group.

Conclusions
Office operative hysteroscopy service is associated with high satisfaction rate when the service is run by experienced staff who provide good support and appropriate explanation to women. Real life experience (outside clinical trial setting) demonstrated that office Novasure ablation has high success rate in clinical terms with subsequent decrease in theatre utilisation and bed occupancy.

ES25-0176 - P094
Posters

Pain management in outpatient novasure endometrial ablation

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Background

Outpatient Novasure Endometrial Ablation is highly effective in treating menstrual disorders. However pain during the procedure is not usually adequately managed despite the use of preoperative analgesic and local cervical block. Various authors showed a mean pain score of 7 to 7.5 on a VAS of 0 to 10, during the procedure. Severe pain was experienced by 14% and 4% required admission to hospital.
Injecting the uterine fundus with local anaesthetic help to reduce the pain score significantly but requires special equipment that are not available in every clinic.

Methods

Novasure ablation was carried out for 12 patients suffering from menstrual disorders. They were advised to take Diclofenac suppositories100mg PR , Paracetamol tablet 1 gm orally, Cyclazine 50 mg. orally and Diazepam 5 mg. tablet one hour before the procedure. During the procedure they received intracervical local anaesthetic Citanest 3% with Octapressin, 4 ampules injected at 3 , 6, 9 and 12 O'clock. We then instilled 2ml Citanest 3% into the uterine cavity via a Pipelle after scratching the endometrium with the pipelle.

Results

We assessed pain on a horizontal Visual Analogue Scale from 0 to 10. Patients scored their pain shortly after the procedure before leaving the clinic. The average score was 4.7. Five patients gave score of 4 or less. No patient experienced severe pain or scored above 7. No procedure was abandoned due to pain or lead to a vasovagal attack.

Conclusions

We found 100% satisfaction regarding pain relief during the procedure.We recommend our simple and cost effective technique of endometrial scratching and instillation of Lidocaine into the uterine cavity for better pain relief. Our pilot study is very limited but a further study with larger population will give more information.

ES25-0181 - P095
Posters

Surgical outcomes of Bologna hysteropexy for uterine retrodisplacement

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Background
uterine retrodisplacement is defined as any backwards displacement of the uterus (retroversion and/or retroflexion). It can be congenital or due to pelvic adhesions and may be associated to pelvic pain symptoms. The aim of the study is to assess the surgical outcomes of a new surgical technique for the treatment of symptomatic uterine retrodisplacement.

Methods
we performed a prospective study, between January 2015 to January 2016, in a tertiary level referral Center of minimally invasive gynaecologic surgery. Consecutive women with uterine retrodisplacement and pain symptoms scheduled for laparoscopic surgery for benign gynaecological diseases were included in the study. Bologna hysteropexy consists in a absorbable suture suspending the uterus to anterior abdominal wall through the plication and shortening of round ligaments. Operative time and perioperative complications were evaluated. For each patient, before surgery and at follow-up evaluations, pain symptoms using 11 point numeric rating scale (NRS) and position of the uterus at pelvic ultrasound were assessed. Full ethical approval was obtained from the local ethics committee (113/2015/U/sper).

Results
during the study period 30 women were submitted to Bologna hysteropexy. Median age of our study group was 34 years (range, 25–48) and mean (±SD) body max index (BMI) was 22,4 kg/m2 (± 2,7). The mean (±SD) operative time was 10 (±3) minutes. Median hospitalization time was 3 days (range, 2-8). In the postoperative period one patient complained transient vulvar hematoma, which resolved spontaneously after 5 days. At mean (±SD) follow-up of 12 months (±4), all patients presented a forward uterus at pelvic ultrasound and a significant pain symptoms improvement (median (range) pre- and post-operative NRS: dysmenorrhea: 8 (5-9) vs 2 (0-3), $p<0.01$; dyspareunia: 7 (6-10) vs 2 (0-4), $p<0.01$; chronic pelvic pain: 5 (4-8) vs 1 (0-3), $p<0.01$).

Conclusions
Bologna hysteropexy is a safe and feasible procedure in women scheduled for laparoscopic surgery for benign gynaecological diseases. This technique achieves a good efficacy on uterine position and pain symptoms at follow-up evaluation.

ES25-0183 - P096
Posters

Hysteroscopic Essure® sterilization: Results of Italian multicenter experience

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Background

Essure® is a minimally invasive option for permanent contraception with high reported rates of patient satisfaction and low rates of pregnancies when bilateral occlusion is confirmed.
A small percentage of women have reported negative experiences with Essure and subsequently choose to have the tubal inserts removed. Device failure and complications (perforation, migration, and expulsion) or patient problems reported (pelvic pain, heavier menses/menstrual irregularities, headache, fatigue, weight fluctuations, and hypersensitivity to nickel) became a subject of litigation in 2014.
The present Italian retrospective multicenter study analyzed safety, tolerability, and effectiveness of Essure inserts during short and long-term follow up

Methods

1913 women, mean age 39.5 years (range 23–48 years) underwent office hysteroscopic sterilization using Essure between January 2003 and December 2014 with satisfactory device location and tube occlusion based on hysterosalpingography or hysterosalpingo-contrast sonography. All women received personal interviews conducted over the phone by trained health personnel.
All office hysteroscopic bilateral Essure placements were performed in general hospitals and clinical teaching centers by skilled hysteroscopists.

Results

Placement rate, successful bilateral tubal occlusion, perioperative adverse events, early postoperative (during the first 3and 12 month follow-up) and late complications were evaluated. Satisfactory insertion was accomplished in 97.1% of women, and 5 expulsion and 4 asymptomatic perforations were detected during confirmation test.
Five unintended pregnancies occurred, 3 before the 3-month confirmation test and were linked to patient noncompliance with contraception or follow-up and 2 to misinterpretation of confirmatory ultrasound imaging. No other pregnancies were reported among women relying on the Essure inserts who completed at least the12-month follow-up. Post procedure pain was minimal and brief, in 9, pelvic pain became intractable requiring removal of the devices laparoscopically. Patch-test to nickel was positive in 6 women who underwent salpingectomy. Overall satisfaction was rated as ''very satisfied'' by the majority of women (98.8%) after at least 12-month of use.

Conclusions

The findings from the follow-up in the Italian study of Essure further support the effectiveness, tolerability, and satisfaction of hysteroscopic sterilization when motivated women are selected and well informed of the potential risks of the device. Patients with a known hypersensitivity to nickel may be less suitable candidates for the Essure system. Moreover, the results from this study did not demonstrate any increased incidence of pregnancy and complications associated with Essure long-term use.

ES25-0186 - P097
Posters

Laparoscopic salpingostomy in infertile patients with hydroslpinges

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Background

To perform laparoscopy in infertile patients is very important for diagnosis.

In this study we analyze distal tubal disease and successes after operative laparoscopy

Methods

Often we have unsuspective pelvic pathology..

Results

For two years period we investigated retrospective 290 patients after laparoscopy. 63 patients of them had hydrosalpinges unilateral or bilateral. For 40 patients we performed salpingostomy. 29 women (46%) became pregnant after reconstruction. Some couples prefer a salpingostomy because of potential opportunity of a spontaneous pregnancy

Conclusions

In this study we analyze distal tubal disease and successes after operative laparoscopy

ES25-0187 - P098
Posters

Early migration of essure device and literature review

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Background
Objectives

To report a case of early essure microinsert migration and literature review

Methods

a 32- year-old, p2, lady attended for essure sterilization. she was given oral paracetamol (1 gm) and diclofenac (100 mg) rectal suppository an hour before the procedure. a 5 mm operative hysteroscope with 5 french operating channel inserted with vaginoscopic technique. both tubal ostiums were well visible. a microinsert was easily introduced through right tubal ostium and four to five coils were visible in the uterus. microinsert insertion failed through left ostium, possibly due to tubal spasm. after counselling the patient a further attempt of essure device insertion to left tube was carried out at 6 weeks interval which failed again. during the second attempt right ostium was checked and 4 coils of microinsert were seen trailing into the uterus from the right ostium like before. Patient was offered laparoscopic sterilization.

Results

within two weeks laparoscopic sterilization was performed. it was noted at laparoscopy that part of the microinsert had migrated through right cornual end and was densely adherent to the omentum and bowel. after obtaining surgical opinion the migrated device was freed from adhesions and removed laparoscopically with blunt dissection. there was no bowel injury noted.

Conclusions

the literature is spares with regards to the risk of migration of the essure device to the abdominal cavity. manufacturer's data suggests more than 750,000 women have had essure device insertion and 16 cases of essure migration have been reported by September 2015. literature suggests displacement risk is higher when insertion of microinsert is difficult. in our case right tubal insertion was easy but device still migrated. the second hysteroscopy noticed visible coils form the right ostium suggestive of microinsert in -situ. however, laparoscopy in two weeks interval found migration through the right cornu. therefore, an early transvaginal scan or pelvic X-ray may be helpful to detect incorrect position. though rare, literature has reported adhesion, bowel perforation and obstruction from migrated device. united states food and drug administration suggests migrated device should be removed soon. most of the migrated devices were removed laparoscopically without major difficulties like ours. it is important to counsel patient and document in the consent about this rare but major complication.

ES25-0190 - P099
Posters

Successful pregnancy after unilateral hysterectomy for major adenomyosis in a woman with uterus didelphys

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Background
To describe a successful pregnancy after laparoscopic unilateral subtotal hysterectomy for adenomyosis in a 46 year old woman with uterus didelphys

Methods
Case report: A 46-years old woman consulted after ultrasonographic diagnosis of a myoma of her left uterine horn in the context of a uterus didelphys. Her gynecological history was characterized by a laparotomy for endometriosis at the age of 37 and 4 unsuccessful in vitro fertilization attempts between the ages of 39 and 43 years. At the age of 46, the patient considered egg donation but was referred to us after diagnosis of a huge myoma in one of the uterine horns. Magnetic Resonance Imaging (MRI) showed an important asymmetry between the two uterine horns with major adenomyosis of the left uterus (figure 1). Laparoscopic subtotal hysterectomy of the left horn was performed (figure 2). Pathology results confirmed adenomyosis (figure 3). Nine months after the surgery the patient became pregnant by transfer of a frozen embryo. A prophylactic vaginal cerclage was performed at 14 gestational weeks and the patient delivered a healthy girl by cesarean section at 37 weeks.

Results
Discussion: Besides fibroids, unilateral uterine pathologies in uterus didelphys are rare. Our case shows unilateral adenomyosis with large asymmetry between uterus. The origin of adenomyosis remains uncertain and existing theories linking adenomyosis with endometriosis and evoking uterine auto-traumatization and mechanisms of tissue injury and repair for the physiopathology may not explain the asymmetric disease in our case. Asymmetry might be related to asymmetry in estrogen and progesterone receptors previously described. MRI is probably the most appropriate tool to diagnose adenomyosis. In our case it allowed differential diagnosis with myoma suggested by ultrasound. We preferred laparoscopic surgery above unilateral uterine artery embolization in order to avoid any damage to the normal uterus. Laparoscopic subtotal hysterectomy for uterus didelphys has been described before. Unilateral subtotal hysterectomy by laparotomy with subsequent pregnancy was described 30 years ago. This report is the first report of a pregnancy after laparoscopic hemi-hysterectomy for unilateral adenomyosis. Surgery was performed easily. The left cervix was left in place to avoid weakening of the remaining uterus. No complications occurred during pregnancy. Cerdage was performed according to recommendations in the literature.

Fig 1. MRI showing uterus didelphys and adenomyosis of left uterine horn

Fig 2. Laparoscopic view of left adenomyotic uterus and right normal uterus (a) and of left remaining cervix and right uterus after left subtotal hysterectomy (b)

Fig 3. Histopathology showing adenomyosis

Conclusions
This report shows that laparoscopic hemi-hysterectomy is feasible in case of uterus didelphys allowing consecutive pregnancy and term delivery.

ES25-0191 - P100
Posters

Evaluation of the impact of laparoscopic ovarian detorsion on ovarian reserve

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Background

Ovarian torsion, defined as the twisting of an ovary on its own pedicle followed by subsequent lymphatic and venous stasis, leads to ischemia, potential necrosis and loss of function. We aimed to evaluate the ovarian reserve after laparoscopic ovarian detorsion in patients with ovarian torsion.

Methods

From February 2014 to September 2015, a total of 11 patients with ovarian torsion underwent laparoscopic detorsion enrolled in this study. Eleven patients were eligible for study and ovarian reserve was assessed by serum levels of anti-Müllerian hormone (AMH) and by antral follicle count preoperatively and in postoperative months 1 and 3.

Results

The mean age of the patients was 25.4 ± 5.5 years. Although the mean antral follicle count on the operated site was slightly lower than contralateral site at postoperative 1 month (6.27 ± 1.27 vs. 7.36 ± 1.43, respectively) ($p > 0.05$), at postoperative 3 months there was no difference in the mean antral follicle count between operated site and contralateral site (7.27 ± 1.01 vs. 7.36 ± 1.29, respectively) ($p > 0.05$). There were no significant changes in the serum AMH levels at 1 and 3 months postoperatively compared with preoperative levels (3.08 ± 1.55 ng/ml, 4.27 ± 1.80 ng/ml, and 3.10 ± 1.70 ng/ml, respectively) ($p > 0.05$).

Conclusions

The laparoscopic detorsion of twisted ovary is a safe procedure to preserve ovarian function and does not impair ovarian reserve which was evaluated with antral follicle count and AMH during the course of follow-up.

ES25-0192 - P101
Posters

Uterine rupture as complication after laparoscopic myomectomy

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Background
A history of myomectomy is not an infrequent item in the surgical history of pregnant women. Uterine rupture in pregnancy is a rare and often catastrophic complication with a high incidence of severe fetal and maternal morbidity. Most of the uterine ruptures that involve myomectomy scars occur during labor.

Methods
We describe the case of a uterine rupture in an African woman after laparoscopic myomectomy that we performed at our institution. During the myomectomy three subserosal fibroids of approximately 3 cm diameter and one intramural fibroid of 6 cm diameter were removed without opening the uterine cavity. The defects were closed with running sutures, two layers at the site of the intramural myoma, one layer at the sites of subserosal myomata. We recommended to the patient a period of 6 months before conception. Because of bilateral Fallopian tube ocdusion, the patient underwent IVF treatment which initially resulted in a twin pregnancy. One fetus was lost by the end of the first trimester. The rest of the pregnancy progressed without complication. At 36+5 weeks of gestation she presented to the emergency room with abdominal pain. No fetal heart rate was detected using cardiotocography. The immediate sonographic evaluation showed fetal asystole and maternal free intraperitoneal fluid as a sign of massive intraabdominal haemorrhage.

Results
During the immediately performed emergency caesarean section a uterine rupture at the site of the myomectomy scar was noted with a length of about 9 cm. It was possible to close the defect and to conserve the uterus. Unfortunately, the neonate was stillborn. The particularity of this case consists in the fact that the uterine rupture occurred in the absence of uterine contraction and in spite of not entering the uterine cavity during myomectomy.

Conclusions
According to several reports uterine ruptures can be estimated to occur in 1% pregnancies post myomectomy. The reports do not speak to the factors that are important for assessing the risk of subsequent uterine rupture (eg, number, size, and locations of leiomyomata; number and locations of uterine incisions; entry of the uterine cavity; type of closure technique). Further studies to investigate these issues are needed.

ES25-0195 - P102
Posters

Power morcellation with specimen bag and fixation sleeve Trocar

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Background

The aim of this study was to retrospectively evaluate the integrity of a method of power morcellation within a specimen bag, and to compare operative outcomes between in-bag power morcellation (IBM group) and uncontained morcellation (control group).

Methods

Retrospective analysis was performed in patients who underwent myomectomy between September 2014 and April 2015 (control group) and the corresponding period of June 2015 to March 2016 (IBM group). All subjects underwent multiport laparoscopic myomectomy. The procedure was performed in the IBM group using the 12-mm Inzii Tissue Retrieval System and Kii Advanced Fixation Sleeve. The bag was inserted through the left upper quadrant port and the specimen was placed inside. The bag edge was pulled out through a 12-mm left upper quadrant incision. The bag was insufflated to 15 mm Hg allowing an umbilical trocar to be placed through the bag for laparoscope access. Morcellation was performed through the left upper quadrant incision.

Results

In the study period, a total of 152 patients underwent laparoscopic myomectomy, including 102 in the IBM group and 50 in the control group. Morcellation with a bag was cancelled in 2 cases in the IBM group, because the fibroids were too large. The descriptive data and demographics of patients are presented in the Table. The difference in morcellation time between the 2 groups was about 3 minutes.

	IBM group (n=100)	Control group (n=50)	p value
Age, yr	36.6 ± 4.7	37.2 ± 6.6	0.53
Body mass index, kg/m^2	21.5 ± 3.0	21.3 ± 2.8	0.63
Estimate blood loss, g	78.4 ± 75.1	71.3 ± 91.3	0.31
Specimen weight, g	171.9 ± 107.6	179.3 ± 104.6	0.69
Size of largest myoma, cm	7.5 ± 1.7	7.7 ± 1.7	0.51
Number of myomas removed, n	4.0 ± 3.5	4.9 ± 3.8	0.14
Operation time, min	90.8 ± 27.2	85.4 ± 32.6	0.29
Morcellation time, min	13.9 ± 7.1	10.8 ± 6.9	0.01

Conclusions

The longer time required for power morcellation using the Inzii Tissue Retrieval System and Kii Advanced Fixation Sleeve may be acceptable. Our future task will be morcellation of large fibroids.

ES25-0197 - P103
Posters

Myomectomy: A history on our own...

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Background
Laparoscopic (LPS) myomectomy has been and still remains a controversial issue in modern gynecology.
Hereby we want to present, by means of own collected data, our "personal" history as a second-stage hospital, conducted by a young team of gynecologists, and how our practice has been modified by learning-curve, as well as other external factors, such as FDA-ban on power morcellators or the introduction of modern collecting bags.

Methods
We searched our surgical files from May 2011 to May 2016, selecting following terms encoded in CIE-9: "leyomyoma", "methrorraghe", "excessive or frequent menstruation", "excision or destruction of lesion or uterine tissue", "laparoscopy" and "other operations on uterus".

Data were collected, such as date, type of surgery, age of patient, number of fibroids removed, size of the largest one, surgical time and bleeding, rate of complications and pregnancies following myomectomy. Data were stratified firstly by approach (open vs endoscopic).
Finally we analyzed the effect of FDA-ban on power morcellators in our daily practice and describe our strategies for keeping the minimally invasive approach as a useful tool for well selected patients (ranging from well designed informed consent, to flow-chart based indications, as well as a description of "self-made" bags and finally the use of those developed by the pharmaindustry).

Results
From the total amount of 94 surgeries, 68,08% were performed laparoscopically and 31,91% openly.

We found statistically relevant differences between these two groups in terms of number of fibroids removed (1,62 vs 2,37), size of largest (6,78 vs 7,87 cm) and operating time (106,6 vs 70,2 min). No differences were found in terms of mean age (35 vs 37,2 years) and bleeding (134,84 vs 196,67 cc).
Data on complications such as transfusion also differed between LPS and laparotomy group (3,12 vs 6,7% of patients), as well as fertility rate after surgery (17,2 vs 10%), without statistic signification.
A laparotomic reconversion rate of 9,37% was calculated; adherential syndrome, adenomyosis, excessive number or big sized fibroids being the argued cause of reconverting.
Data differ quite in the time span between 2011 and 2016, as seen on table

Conclusions
Data collected across these years make laparoscopic myomectomy appear as a safe and convenient surgery, when wisely indicated and precisely performed.
We can asume, in this "*after-ban"* era, that we are performing this surgery under the best possible care standards, nevertheless we find ourselves still in the time in which we can make the difference, specially by reducing operating times through improving of our endoscopic suturing skills and also by sufficiently assessing the security of in-bag morcellation, as well as keeping in mind the long-term follow-up to be aware of potential complications.

ES25-0198 - P104
Posters

Obesity, Diabetes, Hypertension: independent risk factors for the development of endometrial polyps?

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Background

Endometrial polyps are a common gynaecologic condition that are associated with clinical symptoms such as abnormal vaginal bleeding and infertility, as well as premalignant and malignant conditions. Our aim is to evaluate whether obesity, diabetes and hypertension can be considered risk factors for endometrial polyps independently of age and menopausal status.

Methods

This study was carried out at our Institute of Obstetrics and Gynaecology between January 2015 and February 2016. A total of 270 women underwent office hysteroscopy to assess abnormal uterine bleeding, infertility, cervical polyps and abnormal sonographic patterns (irregular endometrial line, suspicion of uterine septa, postmenopausal endometrial thickness >5 mm, endometrial hyperechogenic spots). Demographic characteristics and data on diabetes, hypertension and menopausal status were collected. Hysteroscopy was performed with a 5-mm continuous-flow operative office hysteroscope and endometrial polyps, when present, were treated during the same procedure by means of scissors, laser or electrode.

Results

In 46% of 270 cases, endometrial polyps were found. Univariable and multivariable analysis were performed to verify the presence of a statistically significant association among age, menopause, obesity, diabetes and hypertension (independent variables), and the presence of endometrial polyps. Univariable logistic analysis showed a statistically significant association among age, menopause, hypertension, obesity and the presence of endometrial polyps. However, when multivariable logistic regression was performed, all the independent variables, except age, lost statistical significance (OR 1.01, 95% CI 1.01–1.04, $p < 0.003$).

Conclusions

Endometrial polyps are a pathology of aging but the influence of obesity, diabetes and hypertension, as well as menopause, on the development of endometrial polyps should be reconsidered.

ES25-0201 - P105
Posters

A descriptive study of surgical management of dermoid cysts in a teaching hospital

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Background
To characterize surgical management of dermoid cyst and associated factors in a teaching hospital.

Methods
Data was extracted from case/operation notes of patients using a predesigned Performa. SPSS version 17 for windows was used for analysis.

Results
Over the study period (2010 -2015), a total of 105 cases were studied. The mean age was 42±15 years with a mean BMI of 26.4±5.3 (n=99) with 57.6% of the patients within the overweight and obesity range. Abdominal pain was the most common presenting symptom (55%). A few of the patients (2.9%) were pregnant at the time of their surgery.

Surgery was performed electively in the majority of cases (91.4%), with laparoscopy gaining more popularity than laparotomy over the study period.

Body mass index of 30 and above was associated with the laparotomy approach (OR = 1.404; 95%CI: 0.531 -3.708).

Cyst size was statistically significantly smaller (6.8 ± 2.9 cm) in patients who had laparoscopy compared to the laparotomy (9.0±3.9 cm), t (100) =3.22, p = 0.002. The laparoscopic approach was not statistically significantly longer in duration (88.2±43.6 minutes) compared to laparotomy and laparoscopy/ laparotomy (81.1±37.7 minutes), t (95) = -0.854, p=0.395, irrespective of extent of surgery. However patients who had laparoscopy had a statistically significant shorter length of hospitalization (1±1 day) compared to those who had laparotomy or laparoscopy/ laparotomy (3±1 days), t (103) = 9.267, p = 0.000.

Among young patients (age< 45 years; N=63), 31.7% (n=20) had oophorectomy as part of treatment. There was no statistically significant difference in the mean size of cyst between those who had oophorectomy as part of treatment and those who did not, t (59) = 0.584, p = 0.592.

The majority (71.4%) of the young patients, presented with symptoms, but only 14.3% had emergency surgery. The presence of symptoms less likely to be associated with oophorectomy (OR= 0.746, 95%CI 0.213 – 2.612). However, oophorectomy was more likely to be performed if surgery was carried out on emergency basis (OR = 11.038, 95%CI 2.035 – 59.869).

There was no case of chemical peritonitis in spite of spillage in 18%.

Conclusions
Laparoscopy appears to be gaining popularity as the choice procedure for the surgical management of dermoid cyst in the study hospital and timeframe. Attention needs to be paid to patient related factors which could influence route and extent of surgery. Laparoscopic skills of the operator should also be collected for future studies.

ES25-0202 - P106
Posters

Ovarian reserve and reproductive function after laparoscopic surgery of endometriomas

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Background
1.to investigate the impact of laparoscopic stripping surgery of endometrioma(s) on ovarian reserve; 2.to evaluate reproductive potential in terms of live births rate.

Methods
prospective study, 67 reproductive aged women, (31.2±52 years) underwent laparoscopic stripping surgery for endometrioma(s). AMH levels were measured on third day of the cycle: before and 6 months after the operation. good ovarian reserve is defined as the value of AMH > 1ng/mL.patients were divided in two groups:interested to achieve pregnancy after surgical treatment and not interested to achieve pregnancy in near future.results were analyzed by standard software SPSS.

Results
unilateral endometrioma was present in 45 patients(67,16%) and bilateral in 22 patients (32.83%). the significant decrease of mean serum AMH conc. was recorded in the first six months period of time in patients with uni and bilateral endometrioma(s): (uni: mean± SD: 3.386 ±3.360 pre-op. vs. 1.952± 1.691 post-op.($p<0.001$); bil: mean± SD: 2.091±1.641 pre-op vs.0.723± 0.447 post-op ($p<0.001$). there was statistically significant increase in the frequency of patients with AMH≤ 1ng/mL in the both group of patients sixth months after operation: AMH≤ 1ng/L 26.86% pre-op. vs.53.73% post-op. 42 patients(62.68%) from a total of 67 patients were interested in achieving pregnancy. from a total number of 42 women, spontaneous pregnancy or IVF was achieved in 25 women (59.52%) in a period of three years. spontaneous pregnancy was achieved in 20 women(47.61%) and IVF pregnancy in 5 women (11.90%).out of 25 women (spont+IVF) , the total number of live births resulted in 28 children(66,66%). spontaneous pregnancy occurred in 20 women (47.61%), they had 28 pregnancies overall,the number of children born from spontaneous pregnancy was 22, and there were 6 cases of missed abortions (12 women had a spontaneous pregnancy which resulted in live birth in 9 cases,and in 3 cases in a missed abortion, 8 women had two spontaneous pregnancies, which ended in live birth in 5 cases, and in a missed abortion in 3 cases). 17 women from a total number of 42 women had IVF attempt.IVF pregnancy occurred in five cases(29,41%),the number of children from IVF pregnancy was 6. four women got a child from their first IVF attempt, and 1 women from her third IVF attempt.

Conclusions
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.this data should be taken into account in infertile patients who are preparing for cystectomy. in the absent of tubal occlusion or severe male factor infertility laparoscopy may still be considered for the treatment of endometriosis.in experienced hands, laparoscopic cystectomy may enhance fecundity in infertile women.spontaneous pregnancy is possible even at low levels of AMH.

ES25-0207 - P107
Posters

Laparoscopic treatment of ovarian endometriotic cysts in infertile patients

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Background
The prevalence of endometriosis in infertile women is approximately 30%. Laparoscopy is the gold standard for diagnosis and treatment of ovarian endometriotic cysts.
The aim of this study was to compare two laparoscopic methods of endometriotic cyst treatment in infertile patients in terms of ovarian reserve of the treated ovary, rate of cyst recurrence and pregnancy rates six months postoperatively

Methods
A prospective study was conducted. Twenty-two infertile patients with endometriotic cysts were included and underwent laparoscopy. Laparoscopic surgery was indicated based on ultrasound assessments, serum concentration of tumour marker CA-125 and bimanual pelvic exam. A working diagnosis of endometriosis was made intraoperatively, but the histopathological analyses of surgical specimens served as a definite confirmation of the diagnosis. The patients were divided in two treatment groups. Group I underwent laparoscopic cystectomy with stripping of the cyst wall and consisted of ten patients. Group II was composed of 12 patients who underwent a three-stage laparoscopic procedure consisting of cyst fenestration, drainage and bipolar coagulation of the endometriotic lesion, which was previously biopsied. All Group II patients received a GnRH agonist (Triptorelin 3.75 mg) in the first three postoperative months. The ovarian reserve of the treated ovary, rate of recurrence and pregnancy rates were assessed six months postoperatively.

Results
Group I patients were on average 29 years old, while Group II patients were 31.5 years old. The average duration of infertility was 2.7 years and 2.5 years for Group I and Group II patients, respectively. The smallest endometriotic cyst diameter measured 4 cm, while the largest diameter measured 7 cm in both groups. The average endometriotic cyst diameter was 4.6 cm in Group I, while the average diameter measured 5.5 cm in Group II. Excision of deep infiltrating endometriosis was performed in two patients of Group II. Residual volume and antral follicle count of the laparoscopically treated ovary were greater in Group II patients, and the volume measured 5.6 ccm, while the antral follicle count was 4.8 follicles. On the contrary, the residual volume measured 4.2 ccm and the antral follicle count was 3.9 follices in Group I patients. Serum concentrations of Anti-Mullerian Hormone were reduced more in Group I than in Group II. The endometriotic cyst recurred in 20% of Group II patients, while there were no recurrences in Group I. Pregnancy occurred in 20% of patients in Group II, and 25% of Group I 12 months postoperatively. These differences are not statistically significant.

Conclusions
Laparoscopic cystectomy should always be performed in patients with endometriotic cysts provided the technique can be performed adequately.Laparoscopic cystectomy damages ovarian tissue more extensively than the three-stage laparoscopic procedure, and also reduces ovarian reserve more, but these differences are not statistically significant.

ES25-0208 - P108
Posters

Experience of a peripheral hospital in laparoscopic lumbo-aortic lymphadenectomy: retrospective study of laparoscopic lumbo-aortic lymphadenectomy cases from 2012 to 2015 in Clinique Saint-Jean, Brussels

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Background
This is a monocentric retrospective study over the lumbo-aortic lymphadenectomies performed by laparoscopy between January 1, 2012 and December 31, 2015 in Clinique Saint-Jean in Brussels which aims to demonstrate the feasability of laparoscopic lumbo-aortic lymphadenectomies by experienced surgeons in a peripheral hospital.

Methods
This study includes 18 patients who underwent a laparoscopic lumbo-aortic lymphadenectomy, performed by two experienced laparoscopic surgeons used to performing pelvic lymphadenectomy by laparoscopy, between January 1, 2012 and December 31, 2015. We analyzed the number of lymph nodes sampled, the evolution of operative time and length of hospital stay, the short- and long-term complication rate, the complication type and the overall survival rate after 18 months.

Results
We performed lumbo-aortic lymphadenectomy for two types of cancer : endometrial (4/18) and cervical (14/18). A pelvic lymphadenectomy was associated in 33% of patients (6/18). The average number of sampled lymph nodes is 12. We observed 5,5% of per-operative complications (1/18) which was a duodenal wound, 11% of short-term postoperative complications (2/18) which were both seromas and no long-term postoperative complication. The overall survival rate at 18 months is 88% (16/18). The local recurrence rate is 16,7% (3/18). The distant recurrence as metastatic disease is 27,8% (5/18). The length of hospital stay has dropped from 7 days to 1 day over the analyzed period of time. Statistical analyzes are still in process.

Conclusions
Laparoscopic lumbo-aortic lymphadenectomy is a feasable surgery for experienced surgeons in a peripheral hospital. Our oncologic results are satisfactory with a low complication rate and those results are similar to those observed in a University hospital.

ES25-0209 - P109
Posters

Interval from LEEP to pregnancy and pregnancy outcomes

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Background

To investigate the pregnancy outcome in the subsequent pregnancy after a loop electrosurgical excision procedure (LEEP), and considering the time elapsed from LEEP to pregnancy.

Methods

From Januray 2010 to December 2013, 60 women who had undergone a LEEP and had a subsequent pregnancy were included in this study. The pregnancy evaluated in this analysis was the first pregnancy after LEEP. Two study groups were defined by time interval from LEEP to pregnancy, women with an interval shorter than 12 months compared to an interval of 12 months or longer.

Results

60 women who had a LEEP and subsequent pregnancy were included into the study. The LEEP to pregnancy interval was shorter than 12 months for 8 women (13.3%), and 12 months or more in 52 women (86.7%). The overall rates of the primary outcomes were 6.6% for early spontaneous abortion (25.0% vs. 3.8%), 6.6% for late spontaneous abortion (0% vs. 7.7%), 20% for preterm birth (25.0% vs. 19.2%), 66.7% for term birth (50.0% vs. 69.2%). Women with a time interval shorter than 12 months compared to 12 months or more had a significantly increased risk for spontaneous abortion. No increased risk was identified for preterm birth.

Conclusions

Women with a shorter time interval from LEEP to pregnancy have an increased risk for spontaneous abortion, but not preterm birth.

ES25-0210 - P110
Posters

Management of chemical peritonitis caused by ruptured ovarian dermoid cyst with continuous peritoneal lavage

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Background

A 40-year-old woman presented to our emergency department with acute abdominal pain. On physical exam, her abdomen was tender with peritoneal signs. Laboratory studies revealed a moderate elevated white blood cell (WBC) count of 18.3 k/mm^3, hemoglobin of 15.6 g/dl and a normal C-reactive protein (CRP). A CT-scan showed a small amount of ascites and a left ovarian cyst of twenty centimeters containing fatty tissue and teeth.

Methods

We decided to perform laparotomy with Pfannenstiel incision. During surgery, spillage of cyst contents and diffuse peritoneal inflammation were observed. We did a left salpingo-oophorectomy followed by extensive irrigation of the abdominal cavity with saline solution. A drain was placed in the pelvis at the end of the procedure.

The patient presented a severe acute respiratory distress syndrome (ARDS) the next day and was admitted in the intensive care unit (ICU). Because of hemodynamic instability conditions and the importance of thick fluid drained through the drain, we performed a new exploration of the abdominal cavity with placement of a continuous peritoneal lavage. A meticulous irrigation of the entire abdominal cavity was made. Four drains were placed, two in the right and left upper abdominal quadrants and two in the lower part of the abdomen to drain the pelvis and the lateral wall of the abdominal cavity. Four liters a day were irrigated from the two upper drains during four days. She also received large spectrum antibiotics therapy during seven days. However bacteriological cultures were negative. She was discharged to the general ward after a week and left the hospital on day fourteen.

Results

Most of the time asymptomatic, dermoid cysts are characterized by continuous growth and possible complications such as infection, torsion, malignancy degeneration and rupture.

Chemical peritonitis is a non-infectious cause of peritonitis. Dermoid cyst contents irritate the peritoneum and trigger inflammatory reactions. At surgical exploration, bowels and the peritoneum are covered with thick yellow-white deposits and usually associated with intra-abdominal adhesions.
Spillage of cyst contents during surgery is prevalent especially when cystectomy is performed (66%). Fortunately chemical peritonitis is extremely rare (0,2%) but may occur after spontaneous rupture when surgery is delayed or whether a meticulous lavage is not fulfilled.

Peritonitis remains a life-threatening condition associated with a high morbidity and mortality. Outcomes depend on rapid source control and modern intensive care and sepsis therapy.

Conclusions

Chemical peritonitis due to spillage of dermoid cyst content is a rare but challenging complication. We do believe that prompt decision to perform surgery and use of profuse lavage are the cornerstones of the management. This approach may avoid several surgeries and improve recovery.

ES25-0211 - P111
Posters

Laparoscopic temporary occlusion of hypogastric arteries to prevent bleeding during myomectomy of large transmural fibroids

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Background
Myomectomy of large transmural fibroids can be associated with life-threatening bleeding. The preventive temporary occlusion of uterine arteries is most frequently used method to reduce hemorrhage during surgery. Fibroids can significantly change the anatomy of the pelvis and pelvic retroperitoneal spaces, affecting the access to the uterine vessels. In these cases internal iliac vessels localization is more constant, access to these vessels is better from ergonomic point of view.

Methods
56 women with symptomatic large intramural uterine myomas (II-V and V type, 80 to 120 mm in diameter) were undergone laparoscopic hypogastric artery clipping by atraumatic vascular clamps and myomectomy. The access was performed in posterior leaf of the broad ligament at the level of linea terminalis. The infundibulopelvic ligamens were also clipped by titanium clips. Clamps and clips were removed after uterine suturing. Main outcome measures were clamping time, estimated blood loss and complications of procedure

Results
The time needed to put the clamps in place varied between 16 and 68 min, and stabilized after 20 cases: 26 min (±10 min). The average blood loss was 190mL (range: 50–450mL). Enucleation step practically did not require electrosurgical hemostasis. No-one patient required blood transfusion. There were no any complications.

Conclusions
Temporary occlusion of hypogastric arteries is a safe and effective surgical technique for reducing blood loss during laparoscopic myomectomy, especially, when traditional access to uterine arteries for clipping procedure is technically difficult.

ES25-0222 - P112
Posters

Long-term bleeding patterns, satisfaction and acceptability in women with a levonorgestrel intrauterine device. A retrospective cohort study

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Background
To assess the expectations of women regarding their bleeding pattern and what they think is an acceptable bleeding pattern during the use of a levonorgestrel intrauterine device (LNG-IUD) from 6 months after insertion.

Methods
A retrospective single-centre cohort study was conducted. All women who received a LNG-IUD in 2013 were invited to fill in a questionnaire regarding their bleeding pattern, satisfaction rate and acceptability of their blood loss during the use of a LNG-IUD. Questionnaires were sent and received between January 2016 and May 2016.

Results
Seven hundred and fifteen patients were invited and we reached a response rate of 65.3% (467/715). Among the respondents 75.5% still have the LNG-IUD and 24.5% discontinued the use of a LNG-IUD. Main reasons for discontinuation are progestogenic adverse effects (41.9%), dissatisfaction with the bleeding pattern (34.3%) and abdominal pain (31.4%). Women who discontinued the use of a LNG-IUD experienced more heavy (9.5% vs 1.1%), lengthy (10.5% vs 4.6%), irregular (14.3% vs 0%) menstrual bleedings and continuously bleeding (17.1% vs 0%) compared to women who still have the LNG-IUD in situ. Amenorrhea occurs more in women with a LNG-IUD still positioned (54.6% vs 29.5%). The duration of both spotting and bleeding is longer in the discontinuation group compared to the women with continuation of the LNG-IUD (mean number of spotting days 3.7 ± 6.7 vs 1.7 ± 3.0 and mean number of days bleeding 6.1 ± 8.6 vs 1.7 ± 3.9). The satisfaction rate concerning spotting and bleeding is higher for women continuing the LNG-IUD than for women in the discontinuation group (83.9% vs 52.4%), whereas the dissatisfaction rate is higher in the latter (36.2% vs 6.9%). In both groups women prefer no spotting (51.4% and 45.7%), just spotting during a menstrual bleeding (64.4% and 72.4%), no bleeding (64.4% and 51.4%) and a menstrual bleeding of less than 4 days (44.5% and 42.9%).

Conclusions
Women who discontinue the use of a LNG-IUD seem to experience more bleeding complaints and are less satisfied with the bleeding pattern on long-term. The preference of women to experience as minimal spotting and bleeding as possible during the use of a LNG-IUD asks for development of a feasible way to improve the satisfaction of women with bleeding complaints and subsequently increase the continuation rate.

ES25-0224 - P113
Posters

Transvaginal endoscopic surgery-assisted versus conventional laparoscopic adnexectomy (TVEA vs. CLA): a propensity-matched study and literature review

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Background
Natural orifice transluminal endoscopic surgery (NOTES) may be useful in gynecologic endoscopic surgery. This study evaluated the efficacy, safety, and perioperative outcomes of combined NOTES and vaginal approach, transvaginal endoscopic surgery-assisted adnexectomy (TVEA), for the surgical treatment of presumed benign ovarian tumors.

Methods
Records were reviewed for 33 consecutive TVEA procedures performed between May 2011 and March 2014. Patient age, body mass index, parity, mass size, and mass bilaterality were used to select comparable patients who had undergone conventional laparoscopic adnexectomy (CLA).

Results
A total of 236 patients were included in this study (203 CLAs and 33 TVEAs). No cases switched to abdominal laparotomy. Operating time and length of postoperative stay were significantly longer in the CLA group than in the TVEA group, while total hospital charges were higher in the TVEA group ($p < 0.001$). There was no difference in febrile morbidity between the two groups; while the estimated blood loss was higher in the TVEA group, the EBL was <30 mL in both groups.

Conclusions
TVEA can be safely performed for benign and large ovarian tumors. In addition, TVEA offers superior operative efficiency compared to CLA.

ES25-0225 - P114
Posters

Hospital versus individual surgeon's performance in laparoscopic hysterectomy

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Background
In an effort to improve patient safety in gynecologic surgery, there has been an increasing focus on measures of perioperative outcomes, which are use as quality indicators. One of the main problems of this data is the lack of an accurate case-mix correction (patient characteristics that could influence outcomes), which makes reliable outcome comparisons between hospitals and surgeons difficult. In addition, many of the quality assessment registries focus only solely on hospital outcome measures, merging all individual surgeon outcomes. This can result in lack of detection of lesser-skilled surgeons who may exhibit suboptimal performance. Furthermore, the experience of a surgeon is increasingly being used as a component in assessment of surgical quality, and it is important to determine the value of an individual surgical skills factor. The objective of this study is, to compare hospital versus individual surgeon's perioperative outcomes for laparoscopic hysterectomy (LH), and to assess the relationship between surgeon experience and perioperative outcomes once corrected for case-mix characteristics.

Methods
A retrospective analysis of all prospective collected LHs performed from 2003 to 2010 at one medical center was performed. Perioperative outcomes (operative time, blood loss, complication rate) were assessed on both a hospital level and surgeon level using Cumulative Observed minus Expected performance graphs. Adjustment factors for case-mix characteristics were adapted from previous research. Furthermore, we studied the learning effect by regressing the three outcomes on the each surgeon's experience.

Results
A total of 1618 LHs were performed, 16% total laparoscopic hysterectomies and 84% laparoscopic supracervical hysterectomies. Overall outcomes included mean (SD±) blood loss 108.9±69.2 mL, mean operative time 95.4±39.7 minutes and a complication occurred in 76 (4.7%) of cases. Suboptimal perioperative outcomes of an individual surgeon were not always detected on a hospital level. However, collective suboptimal outcomes were faster detected on a hospital level compared to individual surgeon's level. Evidence of a learning curve is seen; for the first 100 procedures a decrease in operative time is observed as individual surgeon experience increases. Similarly, the risk of conversion decreases up to the first 50 procedures

Conclusions
An individual outlier (i.e., surgeon with consistently suboptimal performance) will not always be detected when monitoring outcome measures only on a hospital level. However, monitoring outcome measures on a hospital level will detect suboptimal performance earlier compared to monitoring only on an individual surgeon's level. To detect performance outliers timely, insight into an individual surgeon's outcome and skills is recommended. Furthermore, experience alone is not a sufficient measurement assessment to assure surgical quality and a very experienced surgeon is unfortunately no guarantee for acceptable surgical outcomes.

ES25-0226 - P115
Posters

Ectopic pregnancy in caesarean section scar as a challenge – case report

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Background

Ectopic pregnancy in a scar on the uterus after previous caesarean section is very rare. Unfortunately, more frequent occurrence of this life-threatening form of abnormal implantation of embryo is related to growing number of caesarean sections. There is no clear consensus for the management of such ectopic pregnancies. On the one hand we have to timely establish the diagnosis and start management to prevent severe complications, such as haemorrhage or uterine rupture, but on the other hand we have to be able to preserve fertility.

Methods

We report a case of 26-year old patient with caesarean scar pregnancy solved by laparoscopic excision after medical therapy combining multidose methotrexate (MTX) and mifepristone which was not completely successful.

Results

A 26-year-old patient, gravida 2, para 1 at 6 weeks plus 1 day of amenorrhoea, was admitted to our hospital without complaints with sonographically detected ectopic pregnancy in caesarean section scar. The caesarean section was performed at time 7 years ago abroad. The patient reported vaginal spotting two days before. The human chorionic gonadotropin (hCG) level was established as 10,000 U/l. The patient got combination of multidose methotrexate (MTX) (five times in total) and mifepriston (three times in total). Firstly, the patient developed heavy vaginal bleeding; however, hCG level increased to 25,000 U/l and a new ultrasound showed further positive foetal heart rate. Secondly, hCG level increased to 48,000 U/l and only after the fifth dose of MTX showed tendency for decreasing. Ultrasound investigation confirmed absence of foetal heartbeat. Four weeks later there was still amniotic cavity of the same size with a sonographically detected haematoma of stable size. We performed laparoscopic excision of remaining ectopic pregnancy under temporary arteriae uterinae clipping with very low blood loss.

Conclusions

The used combined medicinal therapy alone was not effective enough to solve the situation with ectopic pregnancy in a caesarean scar. Applied laparoscopic technique allowed to preserve uterus and minimised intraoperative and postoperative morbidity.

ES25-0228 - P116
Posters

The effect of wharton's jelly-derived mesenchymal stem cells transplantation for vaginal replacement in vitro and in rat model

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Background
Cell transplantation strategies have provided potential therapeutic approaches for treatment of MRKH syndrome. The construction of a functional vagina using autologous cells expanded from a small vaginal biopsy was reported. Here, we investigated the effect of Wharton's Jelly-Derived Mesenchymal Stem Cells (WJMSCs) transplantation for vaginal replacement in rat model and the potential of WJMSCSs differentiation into epithelial-like Cells in vitro.

Methods
First, to confirm the effect of WJMSCs in enhancing vaginal replacement, rats that underwent partial vaginectomy were left as such or implanted in the vagina with CM-DiL-labeled WJMSCs only, WJMSCs on SIS, or SIS only, and killed after 3 weeks. Immunocytochemistry, hematoxylin-eosin, masson trichrome and elastic fiber staining were applied to tissue sections. Then, in order to induce keratinocyte differentiation in vitro, WJMSCSs were cultured in Dulbecco's modified Eagle's medium supplemented with 10% FBS containing 0.5 nM bone morphogenetic protein-4 (BMP-4) for 3 days followed by the detection of cytokeratin 14 Abs. In addition, to trace WJMSCs and their differentiation efficacy in vivo, we carried out immunofluorescence staining of CM-DiL-labeld WJMSCs to evaluate expression of the epithelial markers, including AE1/AE3 and cytokeratin 14.

Results
WJMSCs stimulated vaginal tissue repair, including keratin-14 positive epithelium formation. In vitro, WJMSCs sequentially differentiated into epithelial-like Cells, as evidenced by the increased expression of epithelial-related markers, including CK14. However, dual CM-DiL/cytokeratin fluorescence indicated that the damage repair process was not related to WJMSCs conversion to keratinocyte.

Conclusions
In conclusion, we demonstrate that WJMSCs promote the tissue repair in vaginal reconstruction may through MSCs paracrine mechanism in vivo. The study supports the potential use of WJMSCs as a cellular therapy in MRKH syndrome.

ES25-0230 - P117
Posters

Female to male sex reassignment project: Cruces University Hospital experience

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Background
The organization of healthcare for transexual persons is a topic of recent interest in Spain, although little known among professionals of Health, except those involved in gender dysphoria units. Cruces university hospital has a multidisciplinary gender identity unit since 2010 year, where are involved psychiatry service, a clinical psychologist, endocrinology, gynecology and plastic surgery services. The therapeutic process consists of 3 pillars: Psychological initial diagnostic evaluation and psychotherapy, endocrinological evaluation and hormonal therapy and sex reassignment surgery. The aim of the present communication is to describe the experience of our unity and the guideline of Health Care of Transgender People in the Basque Health System, as well as analyze our data.

Methods
It is a descriptive analysis using the database of the gender dysphoria unit which have been collected since 2010. We used SPSS software to perform data analysis

Results
The unit has served a total of 170 transgender people along these 5 years. 40% are female to male (FtM) and the rest are Male to Female (MtF). The 10% leave the program in the psychological evaluation.

The endoscopic gynecology unit has performed 32 laparoscopic hysterectomy and salpingo-oophorectomy since 2010, all of them without any incidence and they underwent surgery with an average age of 31.3 years. Despite, They were asymptomatic patients, we had intraoperative findings during laparoscopy.

They all underwent mastectomy prior to performing laparoscopy, but only two patients have been performed phalloplasty.

Patients should be advised feminizing/masculinizing hormone therapy limits fertility, and it is desirable for patients to make decisions concerning fertility before starting hormone therapy or undergoing surgery to remove or alter their reproductive organs. However, fertility preservation is not covered by our guideline. So no data is available about it.

Conclusions
Irreversible interventions, such genital surgery, are to be undertaken only after assessment of the patient by qualified mental health professionals. The initial clinical evaluation focused on identifying who was an appropriate candidate for sex reassignment proved to be highly effective. Satisfaction rates across our study were nearly 100 % of FtM patients, and regrets were extremely rare and all of them related to the phalloplasty.

The laparoscopic technique is recommended. More over, vaginal access may be difficult as most patients are nulliparous and have often not experienced penetrative intercourse.

Health care professionals should discuss reproductive options with patients before to initiation any medical treatments for gender dysphoria.

ES25-0233 - P118
Posters

Laparoscopic surgery of endometrioma and ovarian reserve

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Background
Patients diagnosed with endometriosis present a significant risk for ovarian tissue damage during surgery, which may lead to infertility, reduced response to ovarian stimulation, and occasionally, premature ovarian failure. Furthermore, repeated surgical interventions pose a high risk of depleting the ovarian reserve especially in young patients and in the presence of bilateral endometriomas. The objectives of our study was to evaluate ovarian reserve by measuring AMH levels before and after surgery in ovarian endometrioma and mild/moderate endometriosis.

Methods
We made a retrospective study 2013-2015 and selected 20 patients. The inclusion criteria were: uni/bilateral endometrioma, mild/moderate endometriosis. The exclusion criteria were : previous surgery, suspected malignancy, benign cyst at hystopathologic exam.

Results
The mean diameter of the cysts was 5,7 cm , the mean CA-125 level was 53,24 (+/- 4,3). The ovarian involvement was superficial (1 case) and deep (19 cases). The AMH median level was 2,4 ng/ml before surgery and 1,6 ng/ml after surgery. The AFC (antral follicle count) median was before surgery 3,3 and after surgery 5,1.

Conclusions
Surgery remain the first choice option to obtain a better AMH levels and also an AFC in cases of endometrioma more than 4 cm diameter. Personalized counseling should be offered to all patients with endometriosis taking into account age, extent of ovarian involvement, current ovarian reserve, previous and impending surgeries for endometriosis, and fertility preservation techniques (FPT)

ES25-0236 - P119
Posters

Essure in hydrosalpinx, a multicenter Italian study

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Background
To evaluate the efficacy and safety of hysteroscopic proximal tubal occlusion with Essure device as treatment in infertile women with hydrosalpinx prior to in vitro fertilization (IVF).

Methods
A prospective, interventional, multicenter study was conduced in five Italian referral centers between December 2008 to May 2016. Forty-nine infertile women with diagnosis of monolateral or bilateral hydrosalpinx, were recruited for the hysteroscopic proximal tubal occlusion with the Essure microinserts before IVF. In those cases, laparoscopic salpingectomy was contraindicated or women had opted for off-label hysteroscopic placement of Essure rather than incisional surgery to achieve proximal tubal occlusion. The successful of the proximal tubal occlusion was confirmed by hysterosalpingography (HSG) or by hysterosalpingo-foam sonography (HYFOSY). To asses reproductive outcomes, the patients were evaluated by clinical pregnancy rate, abortion rate and live birth rate of subsequent treatment with IVF.

Results
In the data processed of the five centers involved, the proportion of patients that attempted at least to one IVF cycle after the placement of Essure device and resulted in clinical pregnancy was 64.2% (27/42 cases). Only 3 patients (11.1%) experienced a miscarriage after the procedure and the live birth rate was 88.9% (24/27 cases).

Conclusions
Hysteroscopic insertion of Essure microinserts has been demonstrated to be an efficacy, minimally-invasive, safe, fast and decisive treatment for hydrosalpinx. Successful rates obtained through subsequent IVF are typical of those patients without hydrosalpinx that undergo IVF for other causes, showing that placement of Essure device prior to IVF is able to eliminate the negative effect of hydrosalpinx on conception.

ES25-0239 - P120
Posters

Non-tubal ectopic pregnancies: do they still remain a diagnostic challenge?

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Background

Non tubal ectopic pregnancies are rare, accounting for around 5% of all ectopic pregnancies. However, the rates have increased in recent years due to use of assisted reproductive techniques and an increase in the number of Caesarean sections performed. The late presentation and diagnostic difficulties can often lead to increased morbidity and mortality. We aimed to identify the incidence of non-tubal ectopics in our unit over a 2 month period and investigate whether they still pose a diagnostic challenge, leading to a delay in treatment.

Methods

We conducted a retrospective study of all ectopics treated in our early pregnancy unit from December 2015-January 2016. From these, the non tubal ectopics were identified and we analysed the gestation at presentation, presenting symptoms, number of scans and serial hcGs performed and time from initial presentation to final diagnosis and management.

Results

Over the 2 month period, 672 early pregnancy cases were seen in the unit. Out of these, 24 ectopic pregnancies were diagnosed, of which 6 (25%) were found to be non-tubal. These included 3 cornual, 1 ovarian, 1 Caesarean scar and 1 abdominal ectopic. Gestation at presentation ranged from 5+5/40 to 10+3/40. 3 (50%) presented with bleeding only, 2 (33%) with bleeding and pain, and 1 (16%) was asymptomatic (referred for a dating scan as on COCP). 3 of the cases only required 1 scan for diagnosis, 1 case required 2 scans and 2 cases required 3 scans. All cases followed the pattern of a suboptimal rise in hcG expected with that of an ectopic pregnancy. The average time from presentation to final diagnosis and treatment for the cornual and ovarian ectopics ranged from 1-4 days. However, this was substantially increased for the Caesarean scar and abdominal ectopics, being 9 and 10 days respectively. A final diagnosis for the abdominal ectopic was not reached until the patient underwent exploratory surgery via laparoscopy. All cases were managed surgically, except one of the failing cornual ectopics which was managed conservatively.

Conclusions

Our study revealed a non-tubal ectopic rate that was 5 times higher than the quoted figures over a 2 month period. It is clear that compared to tubal ectopics, non-tubal ectopics still present diagnostic challenges, despite the advances in ultrasonographic imaging. Although the pattern of suboptimal hcG rise was as expected in all 6 cases, a final ultrasonographic diagnosis for the abdominal and Caesarean scar ectopics took over double the time compared to the ovarian and cornual ectopics, putting the patients at increased risk of an adverse outcome. Clinicians should therefore have a high level of suspicion for a non-tubal ectopic pregnancy in any patient presenting in early pregnancy.

ES25-0244 - P122
Posters

Prevalence of pelvic pain in women using Essure® method after 5 years of insertion

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Background
Introduction

Definitive sterilization Essure® system was approved in Europe in 2001 and by FDA in 2002. Since then, more than 750,000 women have chosen Essure® as their contraceptive method. Among its advantages are an insertion without the need of anesthesia and bypassing the operating room. However, in the last months the number of reported cases complaining about the consequences of this device have been increasing every day. Therefore, the safety of the device and its long-term consequences are being questioned.

Objetive

To study the prevalence of pelvic pain after 5 years from the insertion of Essure® device in our population (Hospital Universitario Principe de Asturias. Facultad de Medicina de Alcalá de Henares. Madrid. Spain).

Methods

A retrospective study on the prevalence of pelvic pain in women using Essure® devices since 2011. Among 68 women listed in our database, we were able to contact with 44. Pelvic pain rate in our population was obtained through VAS pain scale. It was considered as presence of pelvic pain any score greater than or equal to 4 points. Prevalence of dyspareunia and dysmenorrhea (from the insertion of the devices) was also obtained in these patients.

Results

Among 44 (100 %) patients who could be contacted, 8 (18.18%) had pain that exceeded or equaled the 4 points on a VAS pain scale. A total of 4 (9.09%) users express their desire to withdraw devices as a result of a decrease in their quality of life. Of these 4 patients, 1 had already retired the devices and the other 3 were on the waiting list to do so.

Relate to dyspareunia, 5 (11.36%) women complain about pain with sexual intercourse since the insertion of Essure® devices. Similarly, up to 8 (18.18%) users reported more painful menstruation from the device implant.

Conclusions

Although the number of users interviewed is limited, percentage of pelvic pain is not negligible. It is required more studies that could demonstrate the association between pain and insertion of Essure® eliminating other confounders that we overlook. Latest publications in non-medical media about the side effects of Essure® devices could have negatively influenced users so far satisfied. The results obtained so far in relation to the safety of the method Essure® continue to endorse the use of it. However, it is important to insist on adequate information to patients about the procedure, risks, complications and possible resolution.

ES25-0250 - P123
Posters

Comparison of diagnostic accuracy of transvaginal sonovaginography and magnetic resonance imaging in patients with suspicion of deep infiltrating endometriosis

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Background
To compare the diagnostic value of sonography with intra-vaginal contrast (SVG) and magnetic resonance imaging (MRI) for deep infiltrating endometriosis (DIE).

Methods
We performed a retrospective analysis of the clinical charts of all patients that underwent SVG for clinical suspicion of DIE from January 2014 to January 2016 and selected those who had MRI and surgery. Demographic characteristics, clinical findings and previous medical or surgical history were collected, as well as the SVG, MRI and surgery results, in relation to the presence of lesions suggestive of DIE.

SVG lesions were classified as nodule, thickness or “Indian head-like” lesions. MRI lesions as nodule, thickness, adhesions, foci and haemorrhage.

Sonographic exams were performed by the same operator and MRI by different operators, but the scans were re-evaluated by the same operator except in 4 cases where the MRI images were not available to re-evaluation. Operators were informed of the patients’ clinical history and symptoms but were blinded to the results of physical examination and previous imaging examinations.

Sensitivity, specificity, positive and negative predictive values and positive and negative likelihood ratios were calculated.

Results
57 patients were analyzed and 16 selected. Selected women ranged from years 26 to 43 (mean: 34 years). Ten women were nulliparous and four had been diagnosed with infertility. At the time of surgery seven women were receiving hormonal treatment with estroprogestin, four were receiving progestins and two GnRH agonists.

In 14 cases, DIE was confirmed with laparoscopy and histological examination and, in the remaining, pelvic adhesions and superficial pelvic endometriosis was found. SVG identified 3 out of 9 vaginal wall lesions (33.33%), 8 out of 11 Pouch of Douglas lesions (72.73%), 6 out of 8 rectovaginal septum (RVS) lesions (75%), 4 out of 9 recto-sigmoid (RS) lesions (44.44%), 2 of 10 uterosacral ligaments (USL) lesions (20%) and 2 out of 4 anterior compartment lesions (50%). The adequate evaluation of RS and USL by SVG was not possible in 5 and 6 cases, respectively, and were considered to be absent of disease, for statistical purposes. Of these 25 lesions, 92% were identified on MRI and 76,92% of the lesions not diagnosed by SVG were diagnosed by MRI. In 37,5% cases, neither technique identified lesions. Concordance rate for the presence of lesions was 56,25%. Overall sensitivity, specificity positive and negative likelihood ratios of SVG and MRI were 49,02% and 84,31%, 84,85% and 51,52%, 3,24 and 1,74 and 0,60 and 0,30 respectively.

Conclusions
Our data suggests that SVG has a good capacity for recognizing women without DIE whereas MRI has a higher capacity for detecting disease and is a precious complement for SVG in case of doubt and strong clinical suspect of DIE.

ES25-0252 - P124
Posters

Nickel sensibilisation after Essure sterilisation not an item anymore?

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Background

The objective of this study is to evaluate nickel sensibilisation after Essure sterilisation.

Methods

A multicenter prospective descriptive cohort study of the impact of Essure sterilisation on nickel sensibilisation was performed in two Dutch non-academic training hospitals. 169 healthy females with a wish for permanent sterilisation were included. At least 72 hours before sterilisation all patients received 2 patches; 1 with a nickel solution in 5% petrolatum and 1 control patch. Also, all patients were asked to fill in a questionnaire on allergic reactions. The patch test was scored according to the Devos (2002) criteria for contact dermatitis. 3 months after sterilisation the patch test and the questionnaire were repeated.

Results

All 169 included patients underwent Essure sterilisation and completed the patch test cycle. There were no statistically significant changes in patch test results and questionnaire outcomes after sterilisation. Before sterilisation 29% had a positive patch test and 1.8% also showed a positive reaction to the control patch. Only 20.7% of patients had a history of nickel allergy. After sterilisation 28.9% had a positive patch test and 0.6% also showed a positive reaction to the control patch. Among patients with a positive patch test before sterilisation the grade of reaction did not increase after sterilisation. Also, there was no increase in nickel allergy related symptoms in these patients. Among 4 patients with a previous negative patch test, 2 developed a grade 1 reaction and 2 developed a grade 2 reaction after sterilisation. According to Devos (2002), grade 1 reactions do not definitively indicate nickel sensibilisation. Of these 4 patients, 2 patients had a history of nickel allergy before sterilisation despite a negative patch test. After sterilisation no increase of nickel allergy related symptoms was found in these 4 patients.

Conclusions

There were no statistically significant changes in nickel allergy patch test results and questionnaire outcomes after Essure sterilisation. Furthermore, among patients with a positive previous patch test the grade of reaction did not increase after Essure sterilisation. These results make clear that sensibilisation to nickel after Essure device placement is not related to the device.

ES25-0258 - P125
Posters

Total laparoscopic hysterectomy with retroperitoneal obliteration of the uterine artery

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Background
The aim of our study is to evaluate the efficacy and safety of the total laparoscopic hysterectomy with retroperitoneal obliteration of the uterine artery.

Methods
We performed 50 procedures between 2015 January and 2016 May at the Department of Obstetrics and Gynecology, University of Debrecen. Operations were performed with various indications including myoma of the uterus, endometrial hyperplasia and cervical dysplasia. Mean operation time, drop in hemoglobin concentration, weight of removed uterus, hospitalization time, major and minor intra- and postoperative complications were analyzed.

Results
Average age of our patients was 49 years (range 33-73 years), body mass index was 25.8 kg/m^2 (range 21.3-31.7 kg/m^2). The mean operation time was 105 min (range 56-180 min). Mean weight of removed uterus was 155 g (range 70-480 g). No intraoperative complication occurred, one repeat laparoscopy took place because of an infection. Hemoglobin decreased a mean of 1.8 g/dl (range 4.4-0.3 g/dl) after the operation. Mean hospitalization was 2.3 days (range 2-3 days).

Conclusions
As a new technique in our department the total laparoscopic hysterectomy with retroperitoneal obliteration of the uterine artery is a feasible and favorable method, with minimal blood loss and hospitalization time. The duration of the operation is decreasing with the experience of the surgeon.

ES25-0260 - P126
Posters

IMELDA morcellation: improving the safety of power morcellation in laparoscopic surgery

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Background
Objective:

The objective of this study was to explore measures to improve the safety of power morcellation in laparoscopic surgery.

Methods
In this study of 50 patients, the IMELDA technique for specimen morcellation is presented. This is the first in-bag morcellation study to demonstrate cytologically, and with postoperative blue dye tests, that no intraperitoneal spilling occurs using this morcellation technique. IMELDA stands for Inked Margins In-bag Morcellation Extracorporeally Ligated for Dual port Access.

Results
IMELDA morcellation uses a self-construction technique avoiding the need for expensive commercially available in-bag morcellation kits, for which there still is no scientific proof that they are spill proof. Most standard specimen extraction bags can be used to self-construct an IMELDA bag. The port placement can be adjusted to the surgeon's habits and any available morcellator can be used. For very low resource settings a surgical glove can be used to construct an endobag for this frugally innovative morcellation technique.

Conclusions
IMELDA morcellation enables surgeons to change from intraperitoneal power morcellation to contained bag power morcellation, without making larger incisions, and without changes in port placement and visualization angles. Inked margins enable the pathologist to determine where the section margins were in case of an unexpected malignant or premalignant lesion, even though the specimen is morcellated.

ES25-0264 - P127
Posters

Applicability of laparoscopic hysterectomy in patients with morbid obesity

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Background
Morbid obesity is no more a contraindication for laparoscopy. Morbid obesity has much complications in the traditional surgery due to the technical problems plus the co-morbidities commonly found with. Exposure in morbidly obese patients by laparoscopy is much better than laparotomy . The effect of co-morbidities on wound healing & postoperative course is much less in laparoscopy. This study aimed to evaluate the applicability of laparoscopic hysterectomy in patients with morbid obesity.

Methods
The study was performed In Ain Shams University, Egypt .The definition of morbid obesity was adjusted according to BMI to be more than 40 kg/m^2.All cases were thoroughly evaluated for suitability for anesthesia. Chronic diseases were evaluated for all patients. Significant hemodynamic changes were the parameter for intraoperative monitoring. Occurrence of complications & conversion into laparotomy was the standard of applicability.

Results
16 cases were performed in the period between November 2015 and May 2016. 9 cases had hypertension , 5 had DM , one case had chronic renal failure. , 5 cases had combined diseases and 6 cases had no morbidities. BMI of all cases was below 50 except two cases above 50. All cases were completed as scheduled whether total or subtotal hysterectomy . In three cases there was a need to stop the procedure & correct the trendelenberg position for a while , but the procedures were completed thereafter. Otherwise no significant intraoperative changes. Postoperative course was uneventful for all cases.

Conclusions
laparoscopic hysterectomy seems to be applicable in patients with morbid obesity.

ES25-0271 - P128
Posters

First in vitro results of a manually controlled hysteroscopic tissue removal system (Resectr ®)

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Background
To evaluate the resection time of a new manually controlled disposable hysteroscopic tissue removal device, an in vitro setting was built, using umbilical cord tissue as polyp-like surrogate.

Methods
Resectr ® (Distal Access, LLC, Park City, Utah, USA) devices were provided in two different diameters. A 9 Fr. (3mm) device was used in a larger 5mm hysteroscope with 5 Fr. working channel, whereas the 5 Fr. (1.65mm) Resectr ® was used in a 3.6mm hysteroscope.
Various pieces of umbilical cord were weighed and sutured on Velcro, to attach it on previously attached Velcro on the inner side of a tap water filled glass bowl. Suction (2 bar) and collection of tissue was performed using a Medela Vario 18 suction device (Medela Benelux B.V, 's-Hertogenbosch, the Netherlands). Both Resectr® devices were tested, by timing the period for complete resection of the tissue.

Results
Thirty-seven pieces of umbilical cord tissue serving as polyp surrogate were resected using the in vitro hysteroscopic setting. The same experienced hysteroscopic surgeon performed all procedures.

Five 9 Fr. (3 mm) cannula devices were used to resect each of five consecutive tissue fragments (n=25). Mean weight of these fragments resected was 1.156 g (median 1.2 g; range 0.9– 1.3 g). The largest diameter of a tissue fragment was 1 cm. The mean resection rate was 2.2836 g/min (median: 0.6; range: 1.34 – 2.95).

Two 5 Fr. (1.65 mm) cannula devices were tested each on six consecutive umbilical cord specimens. The twelve tissue fragments resected had a mean weight of 0.79 g (median 0.8 and range 0.5 – 1.2). Mean resection rate was 0.56 g/min (median: 0.52; range: 0.45 - 0.79).

Conclusions
Both devices resected tissue in an adequate way within acceptable time limits (less then 3 minutes).

The cutting speed for both Resectr ® devices depends on the number of squeezes of the hand piece per minute. Each squeeze initiates 6 cutting movements. In addition, the resection rate is related to diameter of the device used. The small diameter device resected significantly slower than the larger size Resectr ® (mean rate 0.56 g/min versus 2.28 g/min, $p<0.0001$).

Although the 5 Fr. (1.65 mm) device is clearly slower, this thin instrument would serve best for hysteroscopic tissue removal in an ambulatory setting. The resection rate is acceptable for the hysteroscopic removal of small intrauterine polyps.

These promising newly developed devices for mechanical polyp removal can be used in an office setting. They offer similar potentials as the commercial available tissue removal systems whereas the introduction needs less investment. Moreover, this ingenious and effective device will decrease the complexity of the existing motorized morcellation procedures.

Clinical implementation studies have to be done to provide more insight in future possibilities.

ES25-0272 - P129
Posters

Solving a large corneal ectopic pregnancy by laparoscopy - a case report

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Background
Unruptured corneal ectopic pregnancies of more than 4 cm in diameter are rarely seen in clinical practice. Even more rarely are they solved by laparoscopic reconstructive surgery.

Methods
After admitting the patient for pelvic pain, one month after a spontanus abortion, without D&C, we made an diagnosis of an lower pelvis mass 44 x 45 mm of solid echo, with a small lumen in the center. The uterine cavity was empty and endometrial lining 3 mm thickness. Both ovaries were ultrasound normal. No free fluid was observed in the lower pelvis. An elevated betaHCG essay was obtained of 320mU/mL. She had an palpatory tenderness in the left side of the pelvis. No abdominal tenderness was observed.
One month before admittance she had betaHCG declining levels from over 3000 mU/ml to below 2000 mU/mL, and uterine bleeding. So her gynecologist considered it an missed abortion and decided against D&C. She had an menstruation 10 days before admittance.
Lab results were negative for inflammation, and a normal blood count was obtained. The pulse and tension were normal, and she didn,t complain of nausea, vomiting or diarrhea.

Results
In the first 24 hours after admittance all clinical and laboratory examinations were made and the patient was prepared for surgery. An preoperative assumption was made that the observed lower pelvis mass was an ectopic pregnancy.
After the troacars were inserted an large corneal ectopic pregnancy was observed on the left side. The size of the mass was larger than the uterus. The left falopian tube, and left ovary were intact. The tumefact was already partially necrotic, but without any bleeding. We excised the mass with the left falopian tube, preserving the left ovary. Then we reconstructed the uterus in two layers using continous barbed 0 suture. The drainage was placed in the cull de sac. Postoperatively an beta HCG essay was done, proving a significan drop in value.

Conclusions
Laparoscopy as an minimal invasive procedure is suficient and there is no need to do open surgery any more on cases like the one ilustrated. Still it is rarely that such cases present, and this should be taken into consideration when a diagnosis of missed abotrion is treated without D&C. Either a D&C histologic diagnosis should be obtained or a proper follow up with both dropping betaHCG levels and ultrasound examination untill compleate resolution should be done.

ES25-0279 - P131
Posters

Vaginal myomectomy. Case report.

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Background

Uterine leiomyomas are the most common gynaecological benign tumours affecting nearly 30% of women of reproductive age. Aproximately 70% of them are asymptomatic being abnormal uterine bleeding the most common symptom. Pelvic pressure, bladder disfunction or subfertility can also be caused by fibroids.

For the removal of symptomatic fibroids many routes are contemplated such as classical laparotomy or more modern strategies including hysteroscopy, laparoscopy or robotic surgery. Vaginal route is far from being a frequent route in this kind of surgery but it can be a very good option in selected cases.

We report the case of a 34-year-old woman who underwent vaginal myomectomy for a posterior 5cm intramural myoma.

Methods

34-year-old woman with history of paludism, one first trimester miscarriage and one stub wound on the left lumbar quadrant causing kidney and colon injuries that needed an emergent surgery with a medial laparotomy. Even dough the patient didn't present peritonitis she developed an abdominal adherence syndrome secondary to the surgery.

She consulted for infertility. Physical examination showed a multiple scarred abdominal wall and a posterior myoma with no apparent adherences on the Douglas pouch. Gynaecological US showed a unique intramural posterior 5cm myoma that was encroaching the uterine cavity. The rest of the cavity seemed normal. Due to the abdominal adherence syndrome a vaginal myomectomy was proposed.

The surgery was performed under general anestesia. The uterine mobility through the vagina was preliminary checked to confirm the feasibility of the vaginal route.

Posterior colpotomy followed by the entrance to the abdominal cavity was performed. Exteriorsation of the uterus to the vagina, longitudinal hysterotomy and dissection until locating the myoma were the following steps. Finally the fibroid was completely enucleated and the myorraphy was performed on multiple layers to ensure hemostasis. Vaginal pouch was closed with running suture Vicryl 0.

The patient had an uneventful recovery. A bladder catheterisation was ensured for 12h and the hospital stay was 24h under antibiotic (Amocicilin + clavulanic acid 875mg/125mg /8h) that she continued one more week at home. Clinical examination at follow-up consultation was normal.

Results

In our center we have performed 15 vaginal myomectomyes since 2007 with a total of 19 myomas (16 intramural, 3 subserous) between 5 and 9cm, one Douglas pouch abscess and 7 posterior pregnancies (5 vaginal deliveries, 2 C-sections).

Conclusions

Vaginal myomectomy in selected cases and performed by expert vaginal surgeons seems to be a good alternative to laparotomic and laparoscopic route. It is feasible, well tolerated for the patient, less time consuming than laparoscopic or robotic surgery and presents faster recovery. Vaginal route, as a minimally invasive technique, should not be forgotten and the need to keep teaching it to young gynaecologist should be a priority.

ES25-0286 - P132
Posters

Comparison of laparoscopic cystectomy and cystotomy in the treatment of endometriomas

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Background
Endometriosis is one of the most common pathologies in women under 35 years. Endometriomas are the most easily diagnosed manifestations of this disease by ultrasound. The debate on how to treat endometriomas is a hot topic, with no deffinite answer. This study ads data and gives conclusions based on prospective study on patients.

Methods
The study was conducted at the G&O Clinic Narodni Front on 90 patients who were treated with laparoscopic cystectomy or cystotomy for endometriomas. Patients were selected by simple random sampling. The type of laparoscopic operative techniques was decided upon by the operator. Endometriosis is classified according to the revised AFS classification. We tracked pre and postoperative clinical (medical history), symptoms, performed preoperative and postoperative ultrasound and followed the pregnancy rate depending on the operational techniques. For the statistical analysis used Student's t test, Kolmogorov-Smirnov test and the Mann-Whitney test

Results
The highest percentage of patients in the cystectomy group had endometriosis grade III (53.33%), as well as in the cystotomy group where 57.77% of patients had stage III endometriosis. A significantly lower rate of recurrence of ovarian endometrioma was recorded in the group of patients treated with cystectomy (45/4 (8.8%)) as compared to patients treated by cystotomy (45 / (12,26%)). Significantly less signs of dysmenorrhea (p <0.01) were present in patients with laparoscopic cystectomy in relation to laparoscopic cystotomy. Comparing the existence of dyspareunia before and after laparoscopy, we noticed a significantly lower percentage of patients with dyspareunia after cystectomy (p = 0.01), then after cystotomy (p = 0.02). The significantly smaller volume of endometriomas after laparoscopic cystectomy (p = 0 41) justifies this surgical technique. There was no significant difference between patients treated with laparoscopic cystectomy and cystotomy in the occurrence of spontaneous pregnancy in 6 months postoperatively (p = 0.60).

Conclusions
Endometrioma excision reduces the number of ailments that accompany endometriosis (dysmenorrhea (p = 0.00001), dyspareunia (0.01) and relapse rate (45/4 8.8% in the cystectomy versus 45 / 12,26% cystotomy group), and the rate of spontaneous pregnancy in patients with infertility treated by laparoscopic cystectomy (24/8, 30.76%).

ES25-0289 - P133
Posters

Endometrial polyps and heavy menstrual bleeding: do Dutch gynaecologists think these are related?

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Background
Endometrial polyps are a common observation in women presenting with heavy menstrual bleeding (HMB). To objectify the clinical relevance Dutch gynaecologists attribute to polyps, a survey was performed assessing practice variation, guideline adherence and motivation for treatment strategies.

Methods
An anonymous, online survey was send to consultant all members of the Dutch Society of Obstetrics and Gynaecology (NVOG). Professional characteristics of participants were assessed. Knowledge of the recommendations from the heavy HMB guideline of the NVOG was evaluated and personal motivation for treatment strategies was explored.

Results
In total, 157 surveys were completed with 48% of consultants working in a non-teaching hospital, 42% in a teaching hospital and 10% in a university hospital. Forty-three percent of respondents perform over 20 diagnostic hysteroscopies per year, 40% over 50 procedures per year. Fifty percent of responders perform over 20 therapeutic hysteroscopies per year, 23% of responders over 50 per year.

Awareness of guideline recommendations was evaluated with three true/false questions. The recommendation to perform gel or saline infused sonography (GIS/SIS) only when conventional ultrasound doesn't exclude an intra-cavitary abnormality is not known to 33% of respondents. The recommendation to prefer an outpatient setting for hysteroscopic polypectomy (TCRP) is not known to 5% of respondents and 38% of respondents are unaware of unavailability of good quality evidence confirming endometrial polyps cause HMB.

Evaluation of practice variation showed that 77% of respondents perform a GIS/SIS only when conventional ultrasound doesn't exclude an intra-cavitary abnormality. After polyp diagnosis, 87% will plan a TCRP. Polyp size forms a decisive factor for TCRP for 56% of respondents, patients' anxiety for 44% and documentation of histopathology for 54%. Ultrasound characteristics, consultants concern about (pre-)malignancy or patients age don't contribute to this decision. Twenty-nine percent of TCRPs are done in an outpatient setting, 72% in clinical or daycare setting. A TCRP for HMB symptoms is believed to be sometimes effective by 70% of consultants and almost always effective by 25%. A TCRP only is offered by 22% to patients with a polyp and HMB, 67% offer TCRP plus concomitant HMB treatment.

Conclusions
The majority of responding consultants are aware that evidence of effectivity of a TCRP for HMB is unavailable, a larger majority still believes it to be at least somewhat effective. This is confirmed by the fact that 87% would always perform a TCRP when a polyp is diagnosed. Interestingly enough there are no distinctive characteristics of the polyp or patient that drive the decision to remove the polyp. Lack of confidence in the beneficial effect of polypectomy is also supported by the finding that 67% of consultants offer concomitant HMB treatment. Risk of overtreatment is apparent and well-designed studies into the effectivity of TCRP for HMB are of crucial importance.

ES25-0291 - P134
Posters

Structured ultrasound scoring of endometrial pattern for diagnosis of endometrial cancer and selection of hysteroscopy in women with postmenopausal bleeding

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Background

To evaluate efficiency of pattern diagnosis of endometrial cancer obtained by use of the risk of endometrial cancer (REC) score for diagnosis of endometrial cancer and selection of hysteroscopy

Methods

714 consecutive women with postmenopausal bleeding, had transvaginal ultrasound(TVS). Reference standard was (endometrial thickness(ET) 4-5mm): endometrial sample (83); (ET >5mm): hysteroscopy(332) or hysterectomy(299). Women were evaluated by residencies supervised by trained sonographers. Endometrial pattern was scored according to the (REC-score) system by adding scores for: BMI (30+ =score 1), endometrial thickness(ET) (10-14=score 1), ET (15+=score 1), vascularity, but not a single/double dominant vessel (present =score 1), multiple vessels (present=score 1), large vessels (present=score 1), and splashed/densely packed vessels (present=score 1), interrupted endo-myometrial junction (present =score 1), and irregular surface at GIS (present =score 1). A diagnosis of malignancy was made at a REC-score of ≥3 obtained by TVS or ≥4 by GIS. 240 had endometrial cancer

Results

Results: Diagnostic efficiency for diagnosis of endometrial cancer was sensitivity(95%CI) 91 (87-95), specificity 93 (90-95), Area under the curve AUC 92 (90-94) for diagnosis of endometrial cancer. In 183 patients (ET>=5) with a score of 0 1.3% had cancer, 4.2% had cancer with a score of 1 and 8.6% with a score of 2.

Conclusions

Structured evaluation by the REC-score may identify most endometrial cancers, and endometrial samples and a fast track admission to oncologic center may be performed. Endometrial samples may be sufficient with a score of 0, while office hysteroscopy should be performed with a score of 1-2 by TVS.
This simple strategy may save hysteroscopies, and avoid hysteroscopy in most endometrial cancers.

ES25-0298 - P135
Posters

Retrospective cross-sectional analysis of diagnosis criteria and management outcomes for patients diagnosed with caesarean scar pregnancy (CSP) at a single tertiary center

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Background
Scar pregnancy is defined as a pregnancy developing at the site of a previous Cesarean or hysterotomy scar in the uterus. The incidence is around 1 in 2000 pregnancies and it is one of the rarest form of ectopic pregnancies. Delayed diagnosis is common, leading to life threatening complications like scar rupture and hemorrhage.

Objectives

To analyze diagnosis criteria and outcomes of medical management of scar pregnancy with methotrexate

Methods
We conducted a retrospective file review of all Cesarean scar pregnancy (CSP) admitted in Latifa hospital, between January 2013 to January 2016. All had a diagnosis confirmed based on typical ultrasound features described by Jurkovic et al. Treatment given on a case to case basis, and according to ACOG recommendations. Intracardiac KCL to the fetus, intralesional and systemic methotrexate single or multidose regimen with Folinic acid, was the main treatment protocol. BHCG levels and ultrasound follow up done in the early pregnancy unit.

Results
Twenty-five cases of CSP were identified during the study period. The median gestational age at diagnosis was 7.8 weeks (range 4.7–11.8 weeks). Diagnosis was made by ultrasound. The main criteria was findings of heterogeneous mass at the site of the caesarean scar (100%), with thinning of the overlying myometrium to less than 5mm. The median duration for human chorionic gonadotropin to return to undetectable level was 10 weeks (range 2–20 weeks). However, duration for sonographic resolution of the CSP took longer, up to 6 months. Two patients refused intervention and in later pregnancies were diagnosed as placenta previa with invasion. Both underwent Cesarean hysterectomy in the third trimester. Eight cases from the group that received methotrexate were re-admitted with bleeding and five of them underwent evacuation of the uterus under USS guidance. One patient underwent uterine artery embolization.

Conclusions
Cesarean scar pregnancy is a rare entity, but its incidence is increasing with the rising number of repeated C sections. Diagnostic criterion through pelvic imaging should be standardized in order to help early detection and proper management. Conservative management with intra lesional and multi dose intramuscular methotrexate is found to be quite effective and has been successful in 76% of cases in our series.

ES25-0301 - P136
Posters

Malignant transformation of both uterine adenomyosis and ovarian endometrisosis diagnosed after laparoscopic surgery: a case report

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Background
Malignant transformation is estimated to occur in approximately 1% of women with ovarian endometriosis, with the risk elevated in women over 40 years of age or with endometriotic cyst greater than 4cm in diameter. Malignant change in uterine adenomysis is a rarer event and occurs after menopause. To our knowledge, there is no case report of malignant transformation arising simultaneously from uterine adenomyosis and ovarian endometriosis. Here, we report a case of tiny endometrioid adenocarcinoma presented in both adenomisosis and ovarian endometriosis.

Methods
A 46-year-old woman was referred to our hospital because of adenomyosis and bilateral ovarian endometrial cysts. Vaginal ultrasonography and magnetic resonance imaging (MRI) demonstrated adenomyosis in the posterior wall of the uterus and bilateral endometrial cysts (7cm and 4cm in diameter) without a solid part. Serum levels of CA125 and CA19-9 increased to 268U/ml and 1249U/ml, respectively. She received laparoscopic total hysterectomy, right salpingo-oophorectomy and left ovarian tumor cystectomy.

Results
Pathological examination following laparoscopic surgery revealed tiny (<5mm-sized) endometrioid adenocarcinoma grade 1 in adenomyosis and ovarian endometriosis. A left salpingo-oophorectomy, omentectomy and retroperitoneal lymphadenectomy were additionally performed two months after the first operation. She did not have any residual tumor, but underwent adjuvant chemotherapy because of positive peritoneal cytology.

Conclusions
Double malignant transformations of uterine adenomyosis and ovarian endometriosis are extremely rare. In our case, however, malignant tumors in adenomyosis and ovarian endometriosis were completely separated and very small, thus suggesting simultaneous development of malignant tumors rather than metastasis. Although a risk of malignant transformation is much lower in adenomysis than in ovarian endometriosis, our case might suggest a similar pathway of carcinogenesis in adenomyosis and ovarian endometriosis.

ES25-0304 - P137
Posters

Concurrent, prospective, analytical cohort study of Endometriosis patients at Latifa Hospital- DHA, Dubai - U.A.E.

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Background
Objective: To analyze the prevalence and features of endometriosis in targeted group of population in the U.A.E. .

Methods
A prospective study of 247 patients with endometriosis who attended the specialty clinic for Endometriosis , latifa hospital from September 2012 to May 2015. All patients underwent surgical treatment. Questionnaire containing data collected from them .Confirmation of Endometriosis done intraoperative, and/or with conclusive histopathology of Endometriosis. Epidemiological analysis of patients with confirmed Endometriosis was done, as compared to published international data of the same category

Results
The prevalence of endometriosis in our study was 4.2% .57.9% (143) were U.A.E. nationals, and 42.1% (104) expatriates.2.8% (7) were adolescents (14-20), 35.8% (88) were early reproductive age (20-30), 47.3% (117) in the mid-age group (30-40), 13.3% (33) in late reproductive age (40-50), and 0.8% (2) in postmenopausal age. 56.6% (140) were P-0, 17% (42) P-1, and 26.4% (65) P-2 or more. 22.2% (55) had primary infertility and 15.3% (38) secondary infertility.44.5% (110) were with a normal BMI index, 2.8% (7) underweight, 31.9% (79) overweight, and 20.6% (51) being obese. Regarding the type of Endometriosis, patients divided between three groups, those with ovarian endometriosis 49.8% (123), pelvic Endometriosis 42.2% (104), and other, mainly Adenomyosis 8% (20).Last, stages of Endometriosis was 17.2% (42) with stage I, 44.5% (110) with stage II, 32.4% (80) with stage III, and 5.8% (14) with stage IV. 19.4% had family history of endometriosis while 72.1% had no family history.

Conclusions
This being the first ever epidemiological study in the U.A.E. amongst patients with confirmed diagnosis of Endometriosis. There is need for further epidemiological surveys to get a more realistic view of the prevalence and severity of the disease in the U.A.E. patients with Endometriosis in the U.A.E. do seem to share the same incidence rate and features as reported worldwide.

ES25-0307 - P138
Posters

Laparoscopic vs. laparotomic surgery for early-stage endometrial cancer: A retrospective comparison at a single hospital

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Background
In Japan, the insurance coverage of laparoscopic surgery for endometrial cancer has began in 2014. The introduction of such minimal invasive surgeries for gynecologic cancers was delayed compared to US and European countries, it is expected that number of laparoscopic surgeries would increase exponentially in Japan from now on. We here report the retrospective comparison between laparoscopic vs. laparotomic surgeries for endometrial cancer at our hospital regarding demographic characteristics of patients as well as intra/post operational outcomes.

Methods
Fifty-three patients diagnosed as early stage endometrial cancer preoperatively, i.e. endometrioid adeno carcinoma grade 1 or 2 and less than 1/2 myomertial invasion, between April 2010 and April 2016 at our hospital and received hysterectomy, bilateral salpingo-oophorectomy, and pelvic lymphadenectomy are included in this study. Age, BMI, operation time, amount of bleeding, the number of lymph nodes removed are compared between two approaches using t-test.

Results
There were 16 cases that received laparoscopic surgery whereas 37 cases received laparotomic surgery. The median age, BMI, operation time, amount of bleeding, and number of lymph nodes of laparoscopic vs. laparotomic groups were 55.5 vs. 61.5 years old, 255.5 vs. 128 minutes, 153 vs. 270 mL, 15.5 vs. 23, respectively. Based on t-test, laparoscopic surgery was significantly longer in operation time ($p<0.0001$) and resulted in less bleeding ($p<0.0001$). There was no lymph node metastasis in both groups. There were also no intraoperative complications in both groups. Up until now there has been no recurrence in both groups.

Conclusions
It is considered that laparoscopic surgery for early-stage endometrial cancer is minimally invasive. It had no disadvantages compared to laparotomic surgeries regarding safety as well as radicality.

ES25-0310 - P139
Posters

Phythalate: is it an everyday toxin causing endometriosis?

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Background
Endometriosis is a reproductive problem of unknown etiology. Retrograde menstruation is the most accepted mechanical explanation of endometrioisis. However peritoneal menstrual blood is observed in many non-endometriotic patients, so development of disease is likely bacause of other more complex etiologic factors. Some environmental toxins like dioxin-like polychlorinated biphenyls are pronounced in disturbed endometrial physiology and is one of the risk factors in developement of endometriosis.

Phthalate is another everyday toxin which is used to soften plastics like paint, glue, building materials, medical and cosmetic products. People may be exposed via ingestion of food preserved in plastic containers, via contact with personal care products (perfumes, hairsprays, nail polishes) and clothes (synthetic leather). Plastic tubes used in medical equipments is also a source for contamination. It may be a likely toxin for endometrium and may disturb the endometrial physiology like as dioxin does. In this study, we measured serum monoesters levels of phythalate in endometriosis patients and aimed to find a relationship between phythalate and endometriosis.

Methods
Mono esters are the measurable products of phythalate in human serum. They are Monoethyl phthalate (MEP), Mono –(2ethylhexyl) phthalate (MeHP), Monobenzyl phthalate (MBzP) and Mono-n buthyl phthalate (MBP). A total of 7 endometriosis patients (Group A) were compared to a total of 6 patients without endometriosis (Group B) with respect to these monoester levels.

Results
The serum monoester levels of phythalate were higher in endometriosis patients when compared to non-endometriosis patients, but the results were insignificant, $p>0.05$ for all (Table 1).

Table 1. Serum levels of phythalate monoester in endometriosis and non-endometriosis patients.

Phythalate Monoesters (µg/L)	Endometriosis patients (n=6)	Non-endometriosis patients (n=7)	p value
MEP	6.39±3.06	4.65±2.09	NS
MeHP	12.15±5.69	7.17±3.19	NS
MBzP	4.76±2.46	3.55±1.57	NS
MBP	7.49±3.74	4.22±2.85	NS

Values are Mean±SD.
MEP: Monoethyl phthalate, MeHP: Mono –(2ethylhexyl) phthalate, MBzP: Monobenzyl phthalate, MBP: Mono-n buthyl phthalate. NS: Not significant.

Conclusions
Phythalate is one of everyday toxins which is used in plastics to soften the products. In our study, serum levels of phythalate were higher in endometriosis patients even the results were insignificant. Everyday exposure to phythalates via ingestion of food preserved in plastic containers, via contact with personal care products (perfumes, hairsprays, nail polishes) and clothes (synthetic leather) and contamination with its monoesters may be an etiological factor for endometriosis.

ES25-0311 - P140
Posters

Is music effective in reducing pain and anxiety in gynecological office procedures?

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Background

Today, office procedures in gynecology are widely used to diagnose and treat various gynecological abnormalities. However, pain and anxiety remain problems that may impede the procedure and can contribute to patients' negative experience. Studies reporting on the use of music during gynecological procedures at the outpatient clinic showed different results on the experienced pain and anxiety, but did not report the effect of music on the surgeon. In these studies, other interventions to decrease patients' discomfort are not mentioned or are excluded. The aim of this study is to measure the contributing effect of music in gynecological outpatient procedures on patients' level of pain, anxiety and satisfaction during and after the procedure. Besides, the experience of the surgeon and the effect of music in comparison with other already used strategies to decrease patients' discomfort, were measured.

Methods

Between October 2014 and January 2016 a prospective randomized controlled trial was performed. Dutch speaking women planned for an outpatient hysteroscopy or colposcopy were included. Patients were randomized to the music group or no music group. Stratification for hysteroscopy and colposcopy took place.

Results

At the time of writing this abstract we finished the inclusions and started the data analysis. The results will be presented at the ESGE congress.

Conclusions

At the time of writing this abstract we finished the inclusions and started the data analysis. The conclusions will be presented at the ESGE congress.

ES25-0312 - P141
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 an 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. 2 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. All 5 patients were provided with entonox for pain relief and did not need any other local anaesthesia. They had a nurse talking to them 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 this myomectomy. One patient underwent an elective hysterectomy for further symptomatic uterine fibroids.

The histological dimensions ranges 30mm to 120mm diameter as shown below:

1 55mm x 40mm x 33 mm;Benign prolpased myoma
2 120mm x 75mm Infarcted spindle cell tumour;Leiomyoma
3 45mm diameter submucous leiomyoma
4 45mm x 35mm x 30mm submucosal leiomyoma
5 40mm x 30mm x 30mm submucosal leiomyoma

Conclusions
Our experience of these 5 cases shows fibroids that are prolapsed 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 need for anaesthesia. It can also avoid the need for hysterectomy and risks of a major operation.

ES25-0313 - P142
Posters

Perioperative surgical outcome of conventional and robot assisted total laparoscopic hysterectomy

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Background
the objective of our study was to evaluate surgical outcome in a consecutive series of patients with conventional and robot assisted total laparoscopic hysterectomy

Methods
a retrospective cohort study was performed among patients with benign and malignant indications for a laparoscopic hysterectomy. Main surgical outcomes were operation room time and skin to skin operating time, complications, conversions, rehospitalisations and reoperations, estimated blood loss and length of hospital stay.

Results
a total of 294 patients were evaluated: 123 in the conventional total laparoscopic hysterectomy (TLH) group and 171 in the robot TLH group. After correction for differences in basic demographics with a multivariate linear regression analysis, the skin to skin operating time was a significant 18 minutes shorter in robot assisted TLH compared to conventional TLH (robot assisted TLH 92m, conventional TLH 110m, p0.001). The presence or absence of previous abdominal surgery had a significant influence on the skin to skin operating time as did the body mass index and the weight of the uterus. Complications were not significantly different. The robot TLH group had significantly less blood loss and lower rehospitalisation and reoperation rates.

Conclusions
this study compares conventional TLH with robot assisted TLH and shows shorter operating times, less blood loss and lower rehospitalisation and reoperation rates in the robot TLH group.

ES25-0319 - P143
Posters

Diagnosis of urogenital malformation with transvaginal hydrolaparoscopy – a case report

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Background
Transvaginal hydrolaparoscopy (TVHL) is used in our department since 2013 for the evaluation of tubal patency and diagnosis of pelvic pathology. We present a 31 year old woman with a 3 years of infertile period. The patient had a known ectopic left kidney.

Methods
The ultrasound examination showed a normal size uterus deviated on the left side and no pathology in the ovarian regions. Hysterosalpingography showed a patent left tube and a blocked right tube. Unsuccessful stimulation occurred for 3 cycles and the patient was referred to our clinic. We performed a TVHL.

Results
During hysteroscopy normal left sided tubal ostium and absence of right sided ostium was presented. During TVHL a right sided, normal ovary and uterine tube, a deviated uterus on the left side and a left sided streak ovary were presented. There was no uterine tube on the left side. Chromohydrotubation was performed and no patent tube was found. As an unusual finding we performed a diagnostic laparoscopy, which confirmed the TVHL findings with an addition that the left sided ovary and tube does not have a connection with the uterus.

Conclusions
TVHL is a favorable diagnostic method on investigation of infertility. However it is also useful in the diagnosis of such rare genital malformations. At the same time it is a quick and cost effective operation. The validation of the method occurred by a diagnostic laparoscopy in one session.

ES25-0320 - P144
Posters

Outpatient endometrial polypectomy audit – is it safe for patients with co-morbidities?

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Background
Outpatient hysteroscopy is an established diagnostic test that is in widespread use across the UK. More recently, advances in endoscopic technology and ancillary instrumentation have facilitated the development of endometrial polypectomy in an outpatient setting with or without the use of local anaesthesia. Vaginoscopy reduces pain during diagnostic rigid outpatient hysteroscopy and should be the standard technique for outpatient hysteroscopy. Endometrial polypectomy can be also be performed vaginoscopically. However, failure to remove the polyp is higher in an outpatient setting. The cost effectiveness of outpatient polypectomy has been shown to be significantly higher than inpatient.

Our objective was to assess if outpatient endometrial polypectomy was also safe and beneficial for the patient with significant comorbidities. This has not been formally assessed in the literature review that we have done.

Methods
We performed an audit of out-patient polypectomy in our unit. We audited 40 sets of notes; and this is ongoing.

Results
Patients were aged 35-85. 39 procedures were successful with no complications or admissions. The procedure that was not successful only partially removed a polyp that yielded complex hyperplasia without atypia, the lady opted to have hysterectomy and bilateral salpingoophorectomy. Endometrial polypectomy was performed as a morcellation technique. In just over half (21/40), the procedure was performed vaginoscopically without the need for dilatation. Twenty five patients had significant comorbidities which were as follows: obesity (13), hypertension(6) and diabetes (5) were the main risk factors in patients. Other risk factors present were gastro-oesophageal reflux disease(3), anticoagulation therapy(3), IHD (3), anaemia, asthma, heart block and rheumatoid arthritis. One patient who had a history of previous sexual abuse and anxiety also managed the procedure vaginoscopically. In one case the polypectomy morcellator was used to obtain an endometrial sample where the woman could not accommodate a vaginal speculum.

Conclusions
We conclude that outpatient polypectomy is beneficial for the patient with comorbidities in avoiding a general anaesthetic and in our setting of NHS England, makes this a more cost effective procedure.

ES25-0322 - P145
Posters

Simplified modification of total laparoscopic hysterectomy

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Background

Laparoscopic hysterectomy is a one of the most often performed operation in gynecology. Modern scientific-technical progress in medicine leads to creation of new techniques, use many special uterus manipulator to facilitating performing hysterectomy. But nowadays in realities of our country the most hospitals have minimal or no economic resources.

That's why we propose a cheap modification of uterus manipulator for laparoscopic hysterectomy. For "modified" uterus manipulator we've used single-toothed forceps fixated on anterior labium of cervix in sagittal plane combined with insertion and fixation of uterus probe.

Methods

Our technique of the total laparoscopic hysterectomy without using of special uterus manipulator, after performing traditional points (insertion of laparoscopic ports, adhesiolysis) includes several principal steps:
1) exposition of the uterus by using our manipulator with tractions to the right, left, anterior, posterior, cranial and caudal position helps to visualized pelvic structures, ureter, transection adnexal structures, round and broad ligaments;
2) pericervical ring dissection by using traditional landmarks facilitated by using our "modified" uterus manipulator - single-toothed forceps in sagittal plane ("additional landmark");
3) after pericervical ring dissection exposition of uterus vessels are satisficed and allows to take uterus tractions in contralateral and cranial directions.
4) before lateralization of the uterine vessels we output uterus probe with single-toothed forceps and insert in vaginal cuff cotton-gauze tampon (2,5-3,5 cm in diameter) covered with sterile latex glove to facilitation of circular colpotomy-transection uterus from vaginal wall. We performed uterus traction by forceps in cranial directions and with vaginal cuff cotton-gauze tampon.
5) Uterus evacuation with or without intravaginal morcellation are demonstrated on this videos. For enlarged uterus we performed different techniques (uterus bifurcation, cervix amputation, eversion of uterus, intravaginal coring etc). Transvaginal morcellation are absolutely safe and comfortable. It's not necessary to use standart morcellator for laparoscopic hysterectomy.
6) Laparoscopic vaginal cuff closure by using absorbable interrupted or non-interrupted sutures we performed also with use of vaginal cuff cotton-gauze tampon.

Results

We analyzed 320 cases of total laparoscopic hysterectomy due to benign uterus condition and try to standardize the total laparoscopic hysterectomy procedure technique without using of special uterus manipulator.

Average operation time was (49.5±5.4) min, in cases of enlarged uterus (63.6±9,5) min, in giant fibroids – (144,8±10,2) min. There were no serious complications in our group. Vaginal stump infection were detected in 4 (1,3%) cases.

Conclusions

Simplified modification of total laparoscopic hysterectomy is safe, economically viable and easy-learned by gynecologic surgeons.

ES25-0323 - P146
Posters

Impact of dienogest compared with low-dose sustained-release goserelin before laparoscopic surgery for stage III-IV endometriosis: a prospective, open-label, randomized, controlled study

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Background
Though it remains debatable, it is empirically-supported that the administrations of gonadotropin-releasing hormone agonist (GnRHa) before laparoscopic surgery for stage III-IV endometriosis bring favorable effects on the surgical outcomes. However, the utility is raised concerns from the viewpoint of the adverse events caused by the drug. Aim of the study is to evaluate the utility of administration of dienogest compared with low-dose sustained-release goserelin before laparoscopic surgery for stage III-IV endometriosis.

Methods
A total of 70 patients were randomly assigned into two groups; each 35 patients were orally administrated 2 mg of dienogest / day during 16 weeks (group D) or were injected 4 times of low-dose sustained-release goserelin before surgery (group G), respectively. The pre-, peri-and postoperative outcomes were compared between the two groups.

Results
Although there was no significant difference between the two groups at the commencement, the total numerical rating scale for pains and Kupperman index (KI) at 4 months after intervention were significantly lower in the group D ($p = 0.03$, and $p = 0.006$). The KI at 4 months after intervention was significantly increased in the group G ($p = 0.04$); contrary, it was significantly decreased in the group D ($p = 0.006$). There was no significant difference in the perioperative outcomes including blood loss and surgical durations, and cumulative probability of symptomatic recurrences between the two groups.

Conclusions
Our data suggest that the administrations of dienogest before laparoscopic surgery for stage III-IV endometriosis are useful for the reduction of preoperative symptoms without development of adverse events, and bring similar impacts on peri-and postoperative outcomes produced by the preoperative administrations of GnRHa.

ES25-0325 - P147
Posters

Hysteroscopic management of cesarean scar defect

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Background

Cesarean scar defect is a recently describe pathology that can led to postmenstrual bleeding, pain and infertility. One of the treatment of cesarean scar defect is operative hysteroscopy. First published results of operative hysteroscopy in this indication show good and promising results but it's difficult to know the rate of women managed by operative hysteroscopy.

Methods

Women with a symptomatic cesarean scar defect managed by operative hysteroscopy in the gynecologic department of a teaching hospital between january 2011 and october 2015 were included in this retrospective study.

Results

Fifty five women with a symptomatic cesarean scar defect were managed during the study period. Out of these 55 women, 5 were initially managed by vaginal route (n=4) or by laparoscopy (n=1).

For the 50 remaining women, hysteroscopic management was decided. In 4 cases, vaginal surgery was required in a second procedure.

Mean age of the 50 women initially managed by hysteroscopy was 36 years old [34.16-37.84]. A single previous C-section was retrieved in 59% of women. One of them had a previous cesarean scar pregnancy.

Symptoms were postmenstrual bleeding for 57% of women, pain for 33% and infertility for 22%.

After hysteroscopic management, 15 out of the 26 women (63%) with postmenstrual bleeding had a regression of them ; 12 out of the 15 women (80%) with pain had a regression and 6 women out of the 10 (60%) with infertility had a pregnancy in a mean time of 15 months. Four were spontaneous pregnancies while 2 were after reproductive therapy. Four other women had a pregnancy in a mean time of 14.5 months.

Conclusions

Operative hysteroscopy can be performed in a large number of cesarean scar defect. As it is the less invasive treatment, it should be proposed in first line therapy to the majority of women.

ES25-0326 - P148
Posters

Differences in clinicopathologic features between endometrioid and clear cell tumors arising from endometrioma

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Background
To clarify clinicopathological features of ovarian cancer arising from endometrioma.

Methods
A retrospective study was conducted on women diagnosed with epithelial ovarian cancer arising from endometrioma according to the Sampson and Scott's criteria at our hospital between 2005 and 2015. The clinicopathologic characteristics of the study subjects, such as age, pregnancy, delivery, height, weight, body mass index, serum levels of CA125 and CA19-9, the presence of atypical endometrisosis and tumor size, were analyzed and compared between patients with endometrial and clear cell tumors. Atypical endometriosis was defined as a precancerous lesion characterized by cytological atypia and architecture proliferation more than 1mm in diameter.

Results
We analyzed a total of 38 women with endometriosis-associated ovarian cancer, 20 endometrioid (4 borderlines 16 malignant) and 18 clear (1 borderline and 17 malignant) cell tumors, and most of which were FIGO stage I diseases. Atypical endometriosis was more frequently observed in endometrioid tumors compared to clear cell tumors (70% vs. 11%, $P<0.01$). In addition, endometrioid tumors were significantly smaller than clear cell tumors (the mean diameter, 95mm vs. 118mm, $P<0.05$), with the difference increasing in women less than 50 years of age.

Conclusions
In women with ovarian borderline tumor and cancer arising from endometrioma, the clinicopathologic characteristics were different between endometrioid and clear cell tumors. These observations suggested different pathways in carcinogenesis between endometrioid and clear cell tumors.

ES25-0329 - P149
Posters

Monocentric review of tubal anastomosis in an academic hospital from 2002 to 2015

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Background
This study aims to show the impact of tubal anastomosis on pregnancy rates. Secondly we wanted to identify the factors that could influence this rate and to demonstrate the safety of this surgery method.

Methods
This is a retrospective trial conducted in Saint-Luc University Hospital between 2002 and 2015 including female patients presenting an idiopathic or iatrogenic sterility and wishing to get pregnant. Surgical data were retrospectively collected from their medical files and the patients were contacted to retrieved information about their future fertility. This trial was performed after the acceptance of the local ethical committee.

Results

178 patients underwent tubal anastomosis during this period of time in our institution. The average age was 37 years. 91,01% of these patients presented an iatrogenic sterility; 10 (5,6%) patients came after having a first anastomosis attempt and 6 (3,37%) patients had an idiopathic sterility. The most frequently cited reason for undergoing anastomosis was a new partner. Median surgical time was 138 min. We planned to use for all the patients splint to catheterize the tubes and the fully success rate to pass the splint was 84,3 (n= 150), it partially succeeded in 8,43% (n=15) of the cases – Surgical complications were found in only 2 cases.

We have a follow up for 87 patients, the overall pregnancy rate in this group was 62,1% (n=54), with a 95,65% results for patients under 35 years. 9 patients get pregnant thanks to IVF. On these 54 patients, we have information about the pregnancy for 40 patients (74,1%) in which 23 patients delivered, 13 stopped pregnancy (11 miscarriage, 1 clear egg, 1 intrauterine death) and 4 had an ectopic pregnancy. The only factor found to influence the pregnancy rate was age of the patient and the success to pass the splint don't seem to influence the future pregnancy rate

Conclusions
Tubal anastomosis is a very secure operation and allowed more than half of the patients to get pregnant. The only significant impact on pregnancy rate was found for age. A big limitation of this study was the small number of patient for which information about pregnancy was available.

ES25-0331 - P150
Posters

Choice: intrafallopian valves as a reversible hysteroscopic sterilization method for women

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Background
To create a new form of contraceptive for women, which only requires a non-recurring and minimally invasive procedure without making use of any hormones. Additionally it constitutes a means of reversing tubal occlusion if the desire for fertility (re-) emerges.

Methods
Choice™ valve implants will be hysteroscopically placed inside the fallopian tubes. The connection between the fallopian tubes and the valves will be provided by an irreversible stent, which is made of non-nickel stainless steel. The implants gather radio energy through a supercapacitor. The internal electronics of the valve energize a memory metal wire, which then moves the valve from one mode to another (open/ i.e. fertile – closed/ i.e. infertile), after having placed a temporary remote control with antenna externally on the abdomen. The valves will be made of a new alloy, which has already been approved by the Food and Drug Administration (FDA) and is therefore expected to be harmless in humans.

We have already proven that the valves, motor, and supercapacitor work in prototype form and that the valves are completely impenetrable to sperm cells. The focus is now shifting towards medical compatibility. To provide early evidence of its feasibility, we cooperate with a coalition of companies to test the initial fallopian reaction.

The proposed procedure is to test dummy valves inside an ex-vivo specimen of the human uterus. This way, we will examine the placement technique and tubal patency. Once no adverse reactions are encountered, we propose to move on to animal studies followed by pre-hysterectomy studies, in which women will test the valves prior to undergoing elective hysterectomy. The intended outcome will be to create a final design, which will be tested on a larger scale in a subsequent phase for CE (Conformité Européene) approval. The Medical Ethical Committee is aware of this study and expects our protocol soon.

Results
In the abovementioned ex-vivo model of the human uterus, we will test three main properties: i.e. (1) tubal patency, (2) stent placement, and (3) sperm blockage. We will also examine the tissue reaction by means of histological techniques. We expect to run these tests from September 2016 onwards.

Conclusions
Choice™ embodies a new concept of hysteroscopic sterilization involving tubal occlusion valves that can be reopened. Choice™ has been developed as a potential solution to the overpopulation that has been threatening the ecological limits of our planet. Not least, since it is believed that sustainable population growth is one of the fundamental pieces of solving climate change and resource depletion. The objective of this study is the continued development of Choice™ to provide a better form of contraception for women, and hence to give women a choice about their fertility.

ES25-0335 - P151
Posters

The role of the proliferation index in the treatment of uterine fibroid

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Background
Management of uterine fibroids (UFs), depending on its histological type and proliferation index.

Methods
We investigated removed tissue after myomectomy: 15 patients with simple type (oligosymptomatic) and 72 patients with proliferative type (symptomatic).

There were determined the histological forms of UFs (cellular, myxoid, haemorrhagic cellular, epithelioid) and the index of proliferation (marker Ki-67) from fibroid and normal myometrium. The myometrium was removed by needle biopsy trepan-BS 16/20 Biomedical, Italy during myomectomy. The uterine wall is pierced vertically on a depth of 1-1.5 cm on front or back surface of the uterus in the areas unaffected by UFs. This material was exposed to histological and immunohistochemistry analysis.

Assessment of the proliferation severity was determined by index of cell proliferation, if the index was less than 10% it's determined as low proliferation; 10-30% - the middle, more 30% - the high.

The treatment was performed by ulipristal acetate, 5 mg (UPA5), a selective PR modulator (SPRM), is characterized by its superior selectivity for PRs, which inhibits cell proliferation and induces apoptosis in leiomyoma cells.

At low proliferation index we used one course of UPA5 (5 mg daily for 12 weeks); at the middle – 2-3 courses of UPA5; at the high – 4 courses of UPA5 as long term (repeated intermittent) treatment.

Results
There was 8.7% of proliferation index (low proliferation) in the nucleus of smooth myocytes of leiomyomas cells with the simple type of UFs. For other types of UFs the proliferation index was 30% and higher, which was defined as high proliferation.

In normal myometrial cells with the simple type of UFs the proliferation index was 0.9% (low proliferation). For symptomatic UFs the proliferation index of normal myometrial cells was 1.4% (low proliferation), but it was 1.6 times higher than in simple type.

During treatment by UPA5 the concentration of estradiol level was at the average follicular phase in all patients; the average time of occurrence amenorrhea was 7 days; the time till the first menstruation was 31-34 days.

The frequency of UFs recurrence among patients with proliferative types of UFs (high proliferation index) decreased in 3.1 times during UPA5 treatment compared to those who did not receive targeted anti-proliferative therapy.

Conclusions
The proliferation index is significantly higher in UFs with proliferative type. It becomes a diagnostic and prognostic criterion for prediction of occurrence the proliferative processes in the uterus after myomectomy and in determining the treatment for prevention the recurrence of UFs.

The targeted anti-proliferative therapy with UPA5 after myomectomy should be made depending on the histological structure of UFs and proliferation index.

ES25-0338 - P152
Posters

Outpatient hysteroscopy polypectomy. Experience at University Hospital Principe de Asturias.

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Background

Development of new hysteroscopic techniques allows the diagnosis and treatment improvement of uterine polyps, even removing several lesions in the same act effectively and safely.
The main objective is to communicate our experience and compare the effectiveness of hysteroscopic polypectomy performed by different techniques: hysteroscopic scissors, morcellator (Truclear System®) and bipolar electrode (VersaPoint System®); according to the characteristics of polyps. As a secondary objective, it was analyzed the operating time required for the polypectomy according to the size of polyps and each type of procedure.

Methods

Retrospective study of a sample of 575 patients collected from 1758 hysteroscopies made between July 2013 and March 2016 at the University Hospital Príncipe de Asturias, Alcalá de Henares (Madrid, Spain).

Results

774 polyps were detected, 444(57%) were single. Polypectomy was successful in 86.7 %. It was performed by hysteroscopic scissors (n = 379 , 56 %) , morcellator (n = 192 , 29 %) and bipolar electrode (n = 100 , 15 %). Polyp size was the main variable that determined the success of the complete polypectomy and the choice of the technique. The polypectomy with scissors were selected in smaller polyps (average 10 mm , range 2-30 mm) and bipolar electrode or morcellator in larger ones (average 16 and 18 mm , 5-40 mm and 5-80 ranges respectively) . There were no significant differences between surgical time required for each procedure: scissors (average time 11 min , range 3-30 min) , bipolar electrode (average time 10 min, range 5-30 min) and morcellator (average time 13 min , range: 5-30 min) and the time required was slightly higher for resection of larger polyps regardless of the technique used.

Conclusions

In our experience, polyp size is the main variable that determines the choice of hysteroscopic technique and its effectiveness. Operating time does not vary significantly according to the hysteroscopic technique chosen and depends largely on the skill of each surgeon. Development of new hysteroscopic devices allows resection of most endometrial polyps with good tolerance and also provides benefits of cost and effectiveness.

ES25-0340 - P153
Posters

Ureteral endometriosis and silent loss of renal function: report of two cases

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Background
Ureteral endometriosis (UE) is a rare condition associated with deep infiltrative endometriosis (DIE). In these patients incidence is estimated to range from 10-14% and progressive obstruction of the lower part of the ureter may occur, leading to hydroureter, hydronephrosis and to potential loss of renal function. Surgery is the treatment of choice and aims to remove endometriotic lesions relieving ureteral obstruction, if the kidney is still functional, or to perform a nephrectomy if there is a complete loss of renal function.

We report two cases of DIE associated with renal dysfunction to highlight potential impact of ureteral endometriosis on renal function.

Methods
Retrospective evaluation of 2 cases of DIE with ureteral endometriosis and compromised renal function referenced to our hospital from November 2014 to March 2016. Data regarding clinical evaluation, diagnostic work-up and surgical management by a multidisciplinary team were collected from clinical files.

Results
Both patients were nulliparous, aged 25 and 28 at the time of diagnosis. Patients mainly symptoms were chronic pelvic pain, dyspareunia and dysmenorrhea but without significant urinary symptoms or lumbar pain. In both patients unilateral uretro-hydronephrosis was diagnosed by ultrasound evaluation of the pelvis, performed to study hyperthermia and pelvic pain in one case, and pelvic pain in the other. Further imagiological evaluation with magnetic resonance imaging confirmed left uretro-hydronephrosis in one patient, and right on the other. Renal cintilogram with MAG3 showed significant impairment of renal function (17% and 5,7%) and reno-vesical ultrasound showed significant renal cortical atrophy in one case, whereas in the other uro-computed tomography demonstrated some preservation of renal cortex.

Both patients had also ovarian endometrioma and lesions suggestive of endometriosis of the posterior compartment.

Laparoscopic excision of endometriotic lesions was performed with nephroureterectomy in one case and ureterolysis plus ureteral stenting in the other. There were no major intra-operative complications. Mean duration of inpatient hospitalization was 10 (6-14) days. One patient was readmitted post-operatively at the 13th day with peritonitis, successfully managed with conservative and medical treatment, followed by discharge after 15 days. A significant postoperative decrease in ureterohydronephrosis was noted in the other patient, with recovery of renal function from 5,7% to 22% only 2 months after surgery. All patients reported significant improvement of chronic pelvic pain, dyspareunia and dysmenorrhea.

Conclusions
A high index of suspicion is required to diagnose UE as it can occur insidiously leading to a silent obstructive uropathy and ultimately to irreversible kidney dysfunction. Patients with DIE, especially UE, should be followed up regularly with renal function testing and imaging.

Main goals of the treatment should be preservation of renal function, relief of obstruction and prevention of recurrence. Laparoscopic diagnosis and management of ureteral endometriosis is safe and efficient.

ES25-0341 - P154
Posters

Clinical significance of endometriosis disease - determination of VGEF in women peritoneal liquid

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Background
Endometriosis is one of the most common gynecolgical disorders. It affects 12-50% of females in the reproductive age and it causes the various disorders of fertile function, pelvic pain syndrome and other health problems. The pathogenesis of endometriosis is still unknown but there is strong evidence that angiogenesis is a key pathobiological process in its development. This study was aimed to assess the expression of VEGF in the perioneal liquid in patients with endometriosis.

Methods
There were analysed the samples of PL obtained from 40 females with verified external genital endometriosis during routine diagnostic laparoscopic surgery. The concentration of VEGF was determined using ELISA method. Statistical processing was conducted using Statistica 8.0 (StatSoft Inc., USA) sofware.

Results
The concentration of VEGF in the perioneal liquid was variable (23.1±1.3 ng/ml) and was correlated with the severity of endometriosis lesions ($r=0,61$ $p<0,05$). There was determined the dependence of VEGF concentration on the phase of menstrual circle – the highest levels (30.5±0.7 ng/ml) were characteristic for the proliferative phase.

Conclusions
There is considered that the determination of VEGF expression in the perioneal liquid of the patients with endometriosis could be valuable biomarker of prognosis and susceptibility for endometriosis disease.

ES25-0345 - P155
Posters

Complications of total laparoscopic hysterectomy in a teaching hospital: a retrospective study of 279 consecutive cases

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Background
The aim of the study is to evaluate intra and postoperative complications of otal laparoscopic hysterectomy (TLH) in a hospital with residency.

Methods
Retrospective analysis of the data from 279 consecutive total laparoscopic hysterectomys performed at the Department of Obstetrics and Gynecology, Hospital de Loures, Portugal. Surgeries were performed by assistants or trainees on formation at the department. Outcomes examined included intraoperative and postoperative complications, operative time and duration of hospital stay. In addition, BMI, previous cesarean section or other abdominal surgery and uterine weight were tested as predictors of surgical complications.

Results
279 TLH were performed. Mos frequent indications included: abnormal uterine bleeding (n=177, 67%), premalignant/malignant lesions (n=35 13%), pelvic organ prolapse (n=26, 10%), postmenopausal adnexal mass (n=13, 5%), chronic pelvic pain/endometriosis (n=10, 4%). Demografics: average age of patients was 47 (29-81), 85 (31%) postmenopausal patients; mean body mass index (BMI) was 27 (16 - 48); previous cesarean section - 65 (23%), previous abdominal surgery - 160 (40%). Intraoperative complications (2%): 3 cases of bladder injury (1%); ureter thermal injury - 1 (0,35%; diagnosed at day 10 post-op.), zero cases of bowel or major vessel injury. Conversion to laparotomy - 5 cases, conversion to laparoscopic-assisted vaginal hysterectomy - 2 cases. Total conversion rate 2,5%. Mean uterine size was 176 g (26-715). Mean duration of the procedure was 151 minutes (52 - 407). Mean duration of hospital stay 2,5 days (1 - 13). Postoperative complications (n=11, 4%): vaginal vault haematoma - 3 (1%) (1 required drainage, 2 had spontaneous resolution), vaginal bleeding - 1 (0,35%; required blood transfusion and vault ressuture), vesicovaginal fistula - 1 (0,35%), vaginal cuff abscess - 1 (0,35%), infected lymphocyst - 1 (0,35%).

Conclusions
The rate of complications for TLH was very low. TLH must be considered a secure procedure, with a low perioperative morbidity, even in a teaching setting.

ES25-0346 - P156
Posters

Outcomes of surgical management of deep infiltrating endometriosis

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Background
The aim of the study is to evaluate the outcomes after surgery for deep endometriosis performed at the Department of Obstetrics and Gynecology, Hospital de Loures, Portugal. Surgeries were performed by an experient teem with a multidisciplinary approach

Methods
Retrospective analysis of the data from all surgeries for deep endometriosis performed between January 2013 and December 2014. Primary outcomes examined included intraoperative and postoperative complications and painful symptoms relief. Secondary outcomes examined include operative time, duration of hospital stay.

Results
Sixteen surgeries were performed (15 patients). Patient's mean age was 35 years [28- 43]; ten women were nulliparous, 9 of witch with infertility. Dysmenorrhea was the most frequent symptom (n=12), followed by dyspareunia (n=8). Resection of endometriotic nodules was performed in 13 patients (12 nodules from the rectovaginal septum and 1 vesicouterine nodule). One discoid excision of the rectum was performed. No conversions to laparotomy were needed. Mean blood loss was < 250ml in 15 surgeries. The postoperative febrile morbidity was 6% (one case of intra-abdominal abscess). No other complications were reported. Mean operative time was 142±55min. Mean duration of hospital stay was 2,6 days(2-8). Mean follow-up duration was eight months, complete relief of pelvic symptoms was obtained in 10 patients (62,5%); improvement in 3 (20%); no improvement in 1 and de novo symptoms in 2 (dyschezia - 1 patient; dysuria - 1 patient).

Conclusions
Surgery for deep endometriosis is feasible but requires a high degree of surgical expertise and a multidisciplinary approach in other to minimize complications and achieve symptoms relieve.

ES25-0357 - P157
Posters

Combined treatment with endometrial ablation and levonorgestrel intrauterine system may reduce the subsequent hysterectomy rate in women with abnormal uterine bleeding

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Background
To evaluate if combined treatment with levonorgestrel intrauterine system (LNG-IUS) and endometrial ablation (Cavaterm®) reduces the risk of later hysterectomy in women with abnormal uterine bleeding (AUB).

Methods
315 women who underwent endometrial ablation (EA) treatment in the period from 30.09.2003 to 31.10.2014 were included in the study. In the period from 01.01.2010 to 31.10.2014, 2 out of 3 surgeons counseled the women to have an LNG-IUS in supplement to the planned EA, this was primarily in order to prevent adhesions and hematometra.

Patient record was revised in order to ensure correct information regarding, primary diagnosis and surgical procedure. The national pathology register includes pathology on all hysterectomies performed on Danish citizens. All women were identified in the register, to detect if subsequent hysterectomy was performed. Follow-up period ended 15.11.2015. The outcome was analyzed by time to event analysis and Cox Proportional Hazards ratios were calculated.

Results
109 women had combined treatment with EA and LNG-IUS (EA/LNG-IUS) and 206 women only EA. The two cohorts were comparable regarding age (43.6 years, SD=5.4), primary diagnosis and occurrence of leiomyomas and polyps. In the EA/LNG-IUS group 5 (4.6%) women had a subsequent hysterectomy preformed, this was significantly different HR 3.9 (95% CI 1.5-9.9 P<0.05), from the EA only group, were 48 (23.5%) women had a hysterectomy. After 3 years of follow-up, 18% of the women in the EA only group had, a hysterectomy compared to the 5% in the EA/LNG-IUS group. In a sub-analysis only involving the women, how received treatment after 01.01.2010, in all 185 women. 108 women in the EA/LNG-IUS group and 77 in the EA only group. There was still a significant difference in hysterectomy rate, 5% in the EA/LNG-IUS group and 15% in the EA only group.

Conclusions
Combined treatment with endometrial ablation (Cavaterm®) and levonorgestrel intrauterine system may reduce the rate of subsequent hysterectomy in women receiving treatment for abnormal uterine bleeding.

ES25-0359 - P158
Posters

Laparoscopic cervicosacropexy (CESA) and vaginosacropexy (VASA) for apical descent of the uterus or the vaginal vault

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Background
In the presence of genital prolapse with apical descent, sacrocolpopexy and vaginal sacrospinous fixation are current available procedures. They focus on restoring apical support usually with a piece of polypropylene mesh of undefined length.
However, these procedures are followed by high rates of incontinence. It is hypothesized that this is caused by the unphysiological fixation of the vagina.
We developed a bilateral replacement of the uterosacral ligament (USL) which are the physiological holding structures. The cervicosacropexy (CESA) and vaginosacropexy (VASA) are standardised abdominal procedure using a novel mesh kit made of polyvinylidene fluoride (PVDF)[1, 2].
In this study we describe the standardized laparoscopic cervicosacropexy (LA-CESA) and vaginosacropexy (LA-VASA) in the treatment of genital prolapse with apical descent.

Methods
The laparoscopic cervicosacropexy (LA-CESA) and vaginosacropexy (LA-VASA) procedures involves substituting both damaged uterosacral ligaments with purpose designed alloplastic PVDF-structures (polyvinylidene fluoride, DynaMesh, FEG Textiltechnik mbH, Aachen, Germany).
In the presence of the uterus a supracervical hysterectomy was performed. The anterior fixation area was centrally placed on the vault / cervical stump with 4 non-absorbable sutures.
After identification of the L5-S1, the peritoneum was horizontally blunt dissected (lengths of 1 cm) 2 cm caudal to the promontory at the lateral margin of the right and left vertebra. The anatomical path of each uterosacral ligament was tunnelled with a long Overholt-clamp and the ligament augmentation part of the PVDF-structure was placed. A fixation device (ProTack Auto Suture 5mm, Covidien) was used for fixation into the periosteum of either side of the sacrum at S2 level.

Results
We report 74 women who underwent the laparoscopic CESA or VASA procedure for apical descent with a medium follow-up of 17 months. Mean age was 68 years (range 42 – 86) and a mean body weight of 75 kilograms. Preoperative, 55 women had POP-Q stage II, 14 women POP-Q stage III and 5 women POP-Q stage IV. Average operating time was 107 minutes, ranging from…to minutes. 62 women had coexisting urinary incontinence. There were no intra-operative complications noted. Two immediate postoperative complications were noted: one patient had a bladder lesion and another patient had a relapse of prolapse. Postoperative, all women had POP-Q stage 0. A 63% cure rate for urinary symptoms was noted.

Conclusions
The laparoscopic CESA and VASA procedures yielded excellent anatomical correction of the prolapse. This approved the results we obtained with the abdominal CESA and VASA procedure as described recently [2]. The mesh used, DynaMesh® is made of polyvinylidene fluoride (PVDF), which cause a milder tissue reaction and therefore minimizing the risk of mesh shrinkage [3]. The unique design of the PVDF structure allows restoration of the uterosacral ligaments with clearly defined surgical steps, making the procedure standardised and reproducible.

ES25-0363 - P159
Posters

Diagnostic value of CA-125 in endometriosis - are we using an accurate cut-off?

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Background
The heterogeneity of endometriosis limits the application of a unique and useful diagnostic marker. However, CA-125 is the most studied biomarker for this disease, but presents an unsatisfactory diagnostic accuracy. The aim of this study was to evaluate the value of CA-125 in patients with endometriosis and to determine a cut-off with the best performance considering stage and location.

Methods
Retrospective study of 177 women with the diagnosis of endometriosis assisted at Gynaecology A Service of Coimbra Hospital and Universitary Centre between 2006 and 2015, submitted to laparoscopy/laparotomy for clinical suspicion or other pathologies with prior determination of CA-125. The cut off considered in clinical practice for malignancy was 35 IU/ml. Statistical analysis was performed using SPSS 20.0 ($p < 0.05$).

Results
Considering the cut-off of 35 IU/ml, the presence of symptoms suggestive of endometriosis (dysmenorrhea, dyspareunia and pelvic pains) was significantly associated with increased CA-125 (p=0.042, p=0.005 and p=0.03, respectively). Clinical data at gynaecological examination suggestive of endometrioses was also associated with an increase in CA-125 (p=0.001). However, cases with ultrasound suggestive of endometriosis and CA-125 values were not correlated (p=n.s). Regarding the endometriosis location, the presence of endometriomas was significantly associated with elevated serum levels of CA-125, unlike peritoneal endometriosis (p=0.013). There was no significant difference in serum values of CA-125 according to stages of endometriosis. The ROC-curve analysis revealed significant results considering ovarian endometriosis, as opposed to stages of endometriosis and infertility. Regarding ovarian endometriosis, the cut off of 28.5 IU/ml was associated with the best performance, with a sensitivity and specificity around 65%.

Conclusions
The presence of symptoms and gynaecological examination suggestive of endometriosis are predictive of CA-125 values> 35 IU/ml, unlike ultrasound findings. A lower cut-off of CA-125 (28.5 IU/mL) may be required to improve the accuracy in ovarian endometriosis prediction.

ES25-0366 - P160
Posters

Laparoscopic detortion of twisted ovary in a nulliparous with a single ovary: case report

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Background
Adnexal torsion is an uncommon but important cause of gynecological emergency. The annual prevalence is approximately 2% to 6%.
Torsion generally occurs in women with moderately enlarged ovaries, often in association with an ovarian cyst.
It was previously thought that untwisting the adnexa could result in an embolus from thrombosed veins but this has been proved untrue. Recent studies showed that laparoscopic conservative management with untwisting the ovary allows the recovery of almost all the cases, even macroscopically non-viable ovaries.
In this way, our main objective is to present a case of ovarian torsion in a 23-year old nulliparous woman with a single ovary.

Methods
The case is presented with appropriate history, laboratory values, imaging results and treatment description. Literature of the topic of conservative approach of adnexal torsion is systematically reviewed.

Results
A 23-year-old nulliparous woman, presented to the emergency unit with a 2 days history of right iliac fossa pain. She had history of left oophorectomy and right cystectomy 3 years ago due to dermoid cyst.

Transvaginal ultrasound shows a right adnexal mass of 60x60mm with a small amount of free fluid in the pouch of Douglas.
On the 2nd day of admission, a diagnostic laparoscopy was performed which confirmed a 7cm dark, hemorrhagic, edematous twisted right ovary. The right ovary was untwisted and after several (30) minutes the normal coloration of this structure was reestablished. The surgeons performed ovariopexy to the posterior wall of the uterus. In a second-look laparoscopy, performed 6 weeks after the acute episode, a right ovarian mass with appearance consistent with a dermoid cyst was detected and cystectomy was done.

After surgery the patient has been followed-up with abnormal clinically symptoms of menopause, ultrasound and basal FSH plus estradiol.

Conclusions
There are conservative and definitive options for treatment. The factors involved in this decision include age, future fertility, menopausal status and evidence of ovarian disease. In this particular case, of a nulliparous with a single ovary, an attempt to preserve ovary function and subsequent fertility was mandatory. Even if the ovary appears dark and dusky on initial inspection most ovaries (90%) demonstrate normal follicular development on ultrasound and normal gross appearance on second look surgery.

The difficulty of performing cystectomy at the time of detorsion is the loss of tissue plans which may result in excision of undue amount of ovarian tissue. Perform a cystectomy as an elective procedure allowed, optimize the intervention and verify the appearance of the ovary few weeks after detorsion.

ES25-0381 - P161
Posters

Case presentation: cervical leiomyosarcoma discovered in a postmenopausal woman

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Background

65 year old G2P2 female presented to the emergency department with post-menopausal bleeding. She had her menopause at the age of 50 and discontinued hormone replacement therapy a month prior to presentation. The patient was clinically doing well. Her last gynecological checkup including a pap smear was 8 months prior to presentation and was completely normal.

Methods

On physical exam she was obese with a BMI of 32 kg/m^2, vital signs were stable, abdominal exam was normal. On pelvic exam, there was active bleeding from the cervix which was not easily visible since it was deviated posterior secondary to a mass impinging on the anterior cul de sac of Douglas. Endometrial biopsy was not technically possible because of the cervical position ; difficult to reach. Pelvic ultrasound revealed a 6cm retrocervical hyperechogenic mass ; along with a heterogenous myometrium. The patient was kept in the hospital for medical treatment with Tranexamic Acid and for diagnostic workup.

Despite medical treatment, bleeding continued and the decision was to perform a hysteroscopic dilation and curettage. Examination under anesthesia showed an effaced, 2cm dilated cervix through which a solid fibroid-like mass was protruding. A hysteroscopic resection was performed but was not complete because of the size of the fibroid. Pathology report revealed a high grade leiomyosarcoma.

The patient was referred to a gynecologic oncologist who on physical exam identified an enlarged dilated cervix with residual disease in its canal. A pelvic magnetic resonance imaging showed an enlarged mass in the uterine cavity infiltrating the cervix, with no extension to the vagina or adjacent structures. A right external iliac vein enlarged suspicious lymph node was also identified. Chest tomography was normal. Since the cervix was involved and in the presence of enlarged suspicious lymph node the gynecologic oncologist decided to perform a radical hysterectomy with bilateral salpingoophorectomy and pelvic lymph nodes dissection through a midline laparotomy.

Results

The surgery was uncomplicated and hospital stay was uneventful. Pathology was reported as high grade leiomyosarcoma originating from the cervix. Margins were negative for malignancy as well as all the dissected lymph nodes (FIGO 2009 stage IB).

Patient did not receive any adjuvant treatment and postoperative follow up including physical exam, vaginal pap smears and imaging was negative for recurrence and patient is currently doing well.

Conclusions

Leiomyosarcomas are most often diagnosed postoperatively due to their macroscopic and radiological similarities to leiomyomas. However, one should think of this diagnosis especially in postmenopausal patients presenting with postmenopausal bleeding and a rapidly growing uterine mass.

ES25-0386 - P162
Posters

The pre-clinical validation trajectory towards implementation of haptic feedback in laparoscopic surgery

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Background

Globally, multiple technological efforts have been made aiming to enhance haptic feedback in laparoscopic surgery. However, a clinically feasible application has not yet been introduced in surgical practice. Therefore, the Force Reflecting Operation Instrument (FROI) has been developed. The FROI is a laparoscopic grasper with implemented haptic feedback. Herewith, we describe the clinically driven approach deployed during the development process of the FROI. The presented results provide the rationale regarding introduction of haptic feedback in laparoscopic practice.

Methods

During product development several FROI prototypes were constructed. After each design step a more advanced instrument evolved as a result of an iterative process including extensive engineering tests and pre-clinical experiments. The research trajectory was initiated with a survey study among laparoscopic specialist to study clinical support. After defining the first instrument settings through consensus of laparoscopic specialist, an experiment to study the effect on instrument-tissue interaction was conducted. During this study it seemed that, besides enhanced force control, the FROI also contributed to tissue consistency estimation and discrimination. A follow-up experiment was designed to determine the effect of haptic feedback on the efficiency of tissue palpation and confidence during decision-making. Eventually a feasibility study involving animal studies was conducted as a final step in the pre-clinical validation process. These studies were a necessary final step to approve the instrument settings as clinically suitable and safe, which is an obvious requisite to enable the step towards clinical implementation.

Results

The results regarding utility assessment of haptic feedback showed a need for the implementation of enhanced haptic feedback in laparoscopic graspers. In our first experimental study, we found that with equal differentiation ability, the FROI enabled the surgeon to operate with significantly reduced interaction force (factor 2 to 4) between instrument and tissue. Additionally, in our follow-up study, it was found that the FROI enabled significantly faster tissue recognition during palpation tasks, with more confidence for the surgeons performing the task. During the in vivo animal study it was found that the decreased force application did not impede the execution of tissue manipulation i.e. usual manipulation tasks could be performed with enhanced tissue interaction control. Additionally, arterial pulse could be detected by the surgeon, even solely through haptic perception.

Conclusions

The conducted studies underlying the clinically driven design approach for the FROI have validated the opportunities haptic feedback yields for laparoscopic surgery. As stated clinically relevant by European laparoscopic specialists, haptic feedback enables enhanced force control and enhances tissue manipulation efficiency. Moreover the FROI has proven suitable usability in an in vivo setting.

ES25-0390 - P163
Posters

Malignancy in endometrial polyps. Review of clinical features.

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Background

Endometrial polyps are pendunculated or sessile excretions of the endometrium which grow above the uterine surface containing variable amounts of glands, stroma and blood vessels.

Endometrial polyps are common pathological lesions of the uterine corpus usually found in perimenopausal women. Polyps are benign growths, although it is known their role as precursors for premalignant changes of the endometrium and endometrial carcinoma.

The purpose of the study is to determine the malignant potential of endometrial polyps and to assess the association between different clinical parameters in patients undergoing hysteroscopic removal.

Methods

A retrospective study of one thousand and sixty eight consecutive cases of hysteroscopic polypectomy was performed at University Hospital Príncipe de Asturias (Spain)

Medical reports provided clinical data such as histopathology findings, abnormal uterine bleeding and menopause status.

Results

Hysteroscopy truly identified endometrial polyps in 79% of the 168 total cases. In 6% cases, hyperplasia without atypia was found in the endometrial polyp.

Premalignant and malignant conditions were observed in 1.8% and 4.2% of cases, respectively.

All the malignant polyps were diagnosed in postmenopausal women with abnormal uterine bleeding, and only one of them was a sonographic finding.

Conclusions

Postmenopausal women with endometrial polyps whether symptomatic or not should be evaluated by hysteroscopy resection of the polyps and submitted to histopathological examination.

ES25-0395 - P164
Posters

Incidence of pre-operative and post-operative pelvic pain in patients with apical pelvic prolapse

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Background
Pelvic organ prolapse is a medical condition that can require surgical treatment when symptoms progress. Gold standard of surgical correction has been colpopexy, which can be achieved through an abdominal or vaginal approach. Common procedures within the vaginal approach include sacrospinous ligament suspension, uterosacral ligament suspension, and iliococcygeus suspension while abdominal approach mainly sacrocolpopexy. The objective of this study is to determine the impact of a colpopexy in patients with pelvic pain both pre-existing and new-onset. Furthermore, this study will assess the incidence of pelvic pain in patients that have undergone open abdominal, laparoscopic, vaginal intra-peritoneal, and vaginal extra-peritoneal procedures.

Methods
The research design was a large data base retrospective cohort study. Medical services claims data was extracted from Cliniformatics DataMart, a largest commercial insurance company in US. The clinical diagnosis of patients that were included in the study was women aged 18-64 who had a colpopexy between January 2005 and May 2012. Patients were furthered identified by those who had continuous enrollment within the insurance company for 12 months prior and 7 months following the procedure, resulting in 9,180 women in the cohort. Insurance codes were used to identify presence of pelvic pain both prior to and following surgical procedures. The percentages of patients with pelvic pain after the procedure were stratified by prior pelvic pain, type of colpopexy, and concomitant repairs during surgery such as hysterectomy and vaginal floor repair.

Results
9,180 out of 18,092 patients were analyzed in the study of which 37.1% underwent an abdominal colpopexy, 20.2% laparoscopic, 39.5% intra-peritoneal and 23.5% extra-peritoneal. 5% (4.9-5.7%) of the entire cohort reported post-operative pain regardless of the surgical approach. Women under 45 years old represented almost half of the cases with post-op pain. When analyzing the cohort of patient with no previous pain, 4.8% of those with an abdominal approach and 4.8% of those with a vaginal approach reported post-operative pain. If patients reported prior pain, the numbers increased to 13.7% reporting post-op pain with abdominal approach and 19.4% with vaginal approach. Concomitant hysterectomy was associated with less post-operative pain. In patients without pre-operative pain, the more additional procedures done with a colpopexy positively correlated with more pain.

Conclusions
This study highlights that patients with a diagnosis of pelvic pain are prior to surgery are at increased risk for post-operative pain and are more likely concomitant procedures with an abdominal approach. Cases with concurrent hysterectomy resulting in less post-operative pain, whereas vaginal floor repairs did not significantly affect post-operative pain.

ES25-0397 - P165
Posters

Tubo-Ovarian Abscess - Surgical or Medical Management?

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Background
The aim of our study is to assess the risk factors for tubo-ovarian abscess, factors predicting surgical treatment and evaluate the effectiveness and complications of minimally invasive techniques used for surgical treatment of tubo-ovarian abscesses.

Methods
Retrospective study of 49 women with tubo-ovarian abscesses over a period of 5 years (2010-2015) admitted at Norfolk and Norwich University Hospital, UK. The demographic characteristics of the patients, past medical history, size and location of abscesses, clinical and laboratory findings were reviewed. All patients were treated with antibiotic regimen according to local protocol which included Cefuroxime, Metronidazole and Doxycycline. Patients who fail to respond to medical treatment required surgery. Surgical treatments included laparoscopic or laparotomy drainage of abscess, salpingo-oophorectomy with or without appendicectomy or hysterectomy.

Results
The mean age of the patients in the study was 43.4 years(17-85 years). Patients requiring surgical treatment were older compared to medical treatment (43.2yr vs 37.8yr). 7/49 were post menopausal. 13/49(27%) patients had intrauterine contraceptive devices at the time of diagnosis of tubo-ovarian abscess and 10 of these patients required surgical treatment. 23/49 (47%) responded to medical treatment and 26/49 (53%) required surgical treatment.The average length of hospital stay in the medical management group was 5.5 days and the surgical group was 7.2 days. 16/26 of patients who underwent surgical treatment had laparoscopic approach with shorter stay in the hospital (average 5.3 days). The size of the abscess was clearly bigger in the patients who did not respond to medical treatment and required surgical treatment (mean 7.2cm Vs 4.5cm). The commonest organism to be grown on culture was coliform bacteria. Streptococcus Milleri was grown in 2 cases. There were no significant complications with laparoscopic approach, however there were 2 patients needing bowel resection and anastomosis and Hartmanns in the laparotomy group.

Conclusions
Historically, the treatment of tubo-ovarian abscesses is surgical. Surgical treatment can range from drainage to a total abdominal hysterectomy with bilateral salpingo-oophorectomy, resulting in significant morbidity. Broad-spectrum intravenous antibiotics have been extensively used as the first-line management with successful treatment.However, due to the variable rates of success with antibiotic therapy alone, surgery is still used. There are no standardised guidelines for the different approaches. It is important to identify if there are any predictive risk factors for surgical treatment. In our case series advancing age, larger size of the abscesses, presence of intrauterine device were all associated with failed medical management. In this era where minimally invasive laparoscopic procedures are extensively used, early intervention with surgical approach can result in reduced morbidity, preserve fertility and early return to routine activities.

ES25-0398 - P166
Posters

Laparoscopic resection of uterine caesarean scar ('niche'); staging of innovation in the IDEAL-classification based on a systematic review of the literature

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Background
Surgical innovation differs from drug development. The IDEAL collaboration (Idea, Development, Evaluation, Assessment, and Long-term study) developed a classification to provide guidance on research and improve the quality of surgical innovation.

Methods
A systematic search of PubMed, Embase, and the Wiley/Cochrane library was performed, all between conception and April 2016. This systematic review classifies the introduction of an innovative surgical technique, the laparoscopic niche resection, using the IDEAL-classification. Based on this, recommendations are given on additional required research before the technique can be safely implemented. The practical applicability of the IDEAL-classification is also evaluated.

Results
Thirteen articles and fourteen abstracts were included in this review reporting on laparoscopic niche resection including a total of 206 women. When using the IDEAL-classification, 19 studies matched the category of Idea (stage 1), six the category Development (Stage 2a), and two articles the category of Exploration (stage 2b). There were no studies done in the stages 3 (Assessment) and 4 (Long-term study). This would justify a stage 2b in the IDEAL-classification (Exploration).

Conclusions
We conclude that, using the IDEAL-criteria, laparoscopic niche repair matches the stages of Idea (1), Development (2a), and Exploration (2b). We now need comparative trials that compare the effectiveness of laparoscopic niche repair to expectant management, the current standard care. We plead not to implement laparoscopic niche repair outside the context of randomised clinical trials, which are needed in the next step of the IDEAL approach.

ES25-0400 - P167
Posters

The impact of chronic pelvic pain and its associated symptoms on women's quality of life

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Background
Chronic pelvic pain (CPP) is a common condition that can be a manifestation of multiple diseases, including but not limited to, endometriosis. Although this condition is associated with substantial social burden, patients are often under-diagnosed and remain symptomatic for months to years before effective therapies are tried. We evaluated the impact of CPP in the quality of life (QoL) of women in the State of Ceara, Brazil.

Methods
This cross-sectional, quantitative study took place in the Endometriosis outpatient service of a tertiary-care facility. Consecutive outpatients referred with CPP were evaluated between December 2014 and December 2015. 159 women fulfilled the criteria for participation, of whom 40 completed the QoL questionnaire, the SF-36. Data was collected on patients' sociodemographic characteristics, symptoms associated with CPP and history of emergency room consultation (ER) search for pain management; on patients' pain intensity, through the visual analog scale (VAS). Student's t test and the chi-square test were used. Correlations were calculated through Spearman's rho test. This study has been approved by the Ethics Committee of the institution and all patients provided signed consent.

Results
The mean age was 34.85 ± 9.6 years, mean number of years of formal education was 10.5 ± 4.6, and mean pain intensity scores (VAS scale) of 7.9 ± 2.6. The complaints most commonly associated with CPP were dysmenorrhea (68.6%), constipation (52.5%), dyspareunia (50.3%), menses-associated diarrhea (34%), abnormal uterine bleeding (31.4%), dyschezia (23.9%), intestinal bleeding (21.4%), tenesmus (20.8%) and infertility (17%). Seventy-one percent of patients were sexually active. Although there was a trend for a higher prevalence of dyspareunia in patients with noncyclic pelvic pain when compared to patients with other forms of chronic pelvic pain, no statistically significant correlations were found (p=0.061). 67.3% had history of searching for medical care in ER in order to control their pain. The chi-square test found no statistically significant differences in history of ER search for pain management between women that presented with CPP associated with dysmenorrhea and those that had CPP without dysmenorrhea. All of the SF-36 domains significantly correlated with pain intensity as measured by the VAS (ρ = -0.46), mainly in the role-physical (ρ = -0,596), physical functioning (ρ = -0.463), role-emotional (ρ = -0.402) and bodily pain (ρ = -0.471) domains.

Conclusions
In our population, no correlation was found between the presence of dyspareunia in women and the noncyclic pattern of the pain, nor between the presence of dysmenorrhea and positive history of seeking for pain management in the ER. However, women's QoL was deeply affected by this condition, regardless of the underlying cause of the CPP. The socioeconomic and cultural heterogeneity seen in the different reports mentioned may influence pain perception, thus generating diverging scores on QoL domains among the populations studied.

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Posters

Spontaneous pregnancy after conservative treatment of endometrial adenocarcinoma in young woman (case report)

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Background

Endometrial cancer is the fourth among all cancers of the female population. Although in recent years the tendency to increase the frequency of cancer in women of reproductive age, endometrial adenocarcinoma remains fairly rare in young women of 20-30 years old. Hysterectomy with bilateral removal of the uterus is the standard treatment of endometrial cancer. Conservative treatment with hormonal, chemotherapy and endometrial resection may be recommended to preserve fertility.

Methods

We present a clinical case of 21-year-old patient who came to the gynecologist complaining on heavy menstrual discharges and pain during menstruation.During the last two years menstrual cycle was a regular, every 28-29 days, the duration of menstruation was near 6 days. Gynecological and somatic anamnesis of patient is not encumbered, without surgical interventions in the past. During general gynecological examination pathological changes were not found. Ultrasound showed an endometrial hyperplasia and endometrial polyps. Diagnostic hysteroscopy was performed with resection of endometrial polyp and biopsy of the endometrium. In pathological material we received endometrial adenocarcinoma G1.

After that were provided additional tests: MRI of the pelvis and X-rays of the chest to eliminate the more severe forms of cancer. Considering the woman's age, absence of pregnancies before and high tumor differentiation we provided the hysteroscopy resection of endometrium. Pathomorphological conclusion: endometrial adenocarcinoma G1 with squamous metaplasia, staining with hematoxylin-eosin.

Variants of treatment and risk of cancer progression in case of preserving fertility were discussed with the patient and on the concilium with oncologist the tactic of organ preserving therapy was chosen.
Based on the results of consilium the GnRH agonist therapy was prescribed as a course of injections for 8 months. Aspirate, endometrial biopsy were performed every 3-6 months. Histologically the decidual transformation of the endometrium was defined.

Results

After a successful course of GnRH agonists we used the prolonged progestogen therapy - subcutaneous implants of levonorgestrel. After 6 months during the diagnostic hysteroscopy the biopsy of the endometrium showed that the most of the glands were presented as atrophic.

After progestin treatment for 2 years histological result: Focal glandular endometrial hyperplasia type "iron in iron" moderate cystic expansion of individual glands.

Considering the positive trend of progestin therapy for 3.5 years it was decided to remove the implant and to transfer the patient to combined oral contraceptives. During the month break after removal of the implant the spontaneous pregnancy has occurred. The patient by herself bore a live term girl.

Conclusions

Literature review shows that hormone treatment on early stages of adenocarcinoma without invasion of the myometrium is safe and can be discussed with patients who areplanning pregnancy. Eight months of continuous GnRH agonists are able to provide positive dynamics of transformation of the endometrium, which may further contribute to the spontaneous self pregnant.

ES25-0404 - P169
Posters

Laparoscopic management of the interstitial ectopic pregnancy (IEP): the beast restrained

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Background
To promote laparoscopic technique for the management of interstitial ectopic pregnancy by cornual resection using endoloop method. This technique is easily reproducible and bloodless and therefore, should be promoted in Gynaecological units whilst managing these high risk ectopic pregnancies . Interstitial ectopic pregnancies can lead to massive and catastrophic haemorrhage both due to spontaneous rupture as well as during surgery. This further adds on to the maternal morbidity and mortality when traditionally used gold standard techniques used for managing such pregnancies such as open laparotomy for cornual resection.

Methods
Diagnostic laparoscopy is performed as usual, 1 x 10 mm port inserted intraumbilical, 3 x 5 mm ports are inserted 2 lateral 2 cm medial and above anterior superior ischial spine and one 8 cm below umbilicus in the midline. Anatomy should be clarified. Energy source and laparoscopic scissors should be used for divison of the mesosalpinx until the side of the uterus and the interstitial ectopic pregnancy (IEP) is reached . The tube is then fed into the endolop which is slid until it surrounds the IEP then tightened firmly. Another endoloop is applied and tightened in the same way. The IEP is then resected using the diathermy scissors. Diathermy can then be applied to any minor bleeding points from the uterine muscles. Laparoscopic diathermy and scissors are used for division of mesosalpinx until the side of uterus and IEP. Tube is then fed into endoloop and slid until it surrounds IEP and then tightened firmly. Another endoloop is secured in the same way. IEP is then resected.

Results
We have performed this management technique in three of our cases of IEP with encouraging results and approximately 20 mls blood loss. b-HCG tracking confirmed the successful management.

Conclusions
Intersitial pregnancies are rare form of ectopics and produces a fear of catastrophic haemorrhage in the mind of gynaecologists when it comes to its surgical management. Various techniques have been reported in literature for the management of Interstitial ectopic pregnancies. Endoloop method is one of them. However, the method used for management largely depends upon surgical skills of surgeon present at the time of such emergencies. We want to promote the endoloop technique which can be easily taught and is bloodless. Trainees and consultants should be encouraged to learn this technique from gynaecologists who are already practicing this successfully and should be encouraged to opt this technique. This in turn makes a large difference to morbidity and mortality associated with this condition

ES25-0407 - P170
Posters

Postoperative evaluation of the uterus after hysteroscopic versus laparoscopic myomectomy of type 1 and type 2 submucous myomas

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Background
The classical method of surgical management of submucous fibroid is by hysteroscopic approach.The reproductive performance of women after removal of submucous myomas is much better in type 0 more than type 1 and 2. This conflict results might be due to harmful effect of hysteroscopy on the endometrium and inadequate healing of it. The objective of the cohort study was to evaluate the uterus after management of submucous fibroid type 1 and type 2 using 2 surgical approaches. In this study either hysteroscopic or laparoscopic myomectomy was used as surgical management for submucous fibroids.

Methods
a total of 74 patients with submucous fibroids were recruited from the outpatient clinic in Shatby maternity university hospital. Patients were randomly divided equally into 2 groups. Groups 1 included those in whom hysteroscopic myomectomy was done while in group 2 laparoscopic myomectomy was used. Saline infusion sonohysterography was done for accurate diagnosis of the type of myomas. Follow up of the uterus by ultrasonography and office hysteroscopy was done. Comparison between both groups as regards demographic data, number of myomas, volume of myomas, type of myomas, number of settings, duration of surgery, percent decrease in hemoglobin level, postoperative stay, postoperative days of uterine bleeding and complications as well as delayed follow up included hysteroscopic findings after surgery, endometrial thickness and myometrial thickness.

Results
Both groups had comparable results regarding type, volume and number of myomas and postoperative hemoglobin. The duration of surgery was longer in group 2 and significant decrease in hemoglobin level in group 2. Postoperative hysteroscopic evaluation of the uterus showed better endometrial interface and normal cavity in group 2 in 32 cases (86%) while normal cavity was found only in 9 cases (24%) in group 1. Myometrium was found thicker in group 2 when compared with group 1. Remnant of fibroids were found in 2/37 cases (5%) in group 2 and in 8/37 cases (21%) in group 1.

Conclusions
Surgical treatment of type 1 and 2 submucous fibroid can be done successfully by both hysteroscopic and laparoscopic approaches. The laparoscopic approach had better postoperative endometrium and myometrium, fewer days of postoperative uterine bleeding and better functioning endometrium but it was also associated with longer duration of surgery and postoperative stay.

ES25-0408 - P171
Posters

3D versus 2D laparoscopy in gynecology: is it really better?

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Background
laparoscopic approach in gynecology is widely used, results in faster recovery of the patients and shorter hospital stay. however, laparoscopic surgery is very challenging in a way that the surgeon needs to operate in a three-dimensional abdominal space through a two-dimensional projection on the monitor, leading to the loss of depth perception. 3D imaging has been postulated to enhance that.

Methods
a systematic search of databases consisting of MEDLINE and PubMed was used to identify randomized controlled trials that compared 2D and 3D laparoscopy. the search strategy employed the use of keywords "3D," "depth perception", "laparoscopy," "performance", "2D ","endoscopy" and "gynecology" in appropriate combinations.

Results
this review has been written in a qualitative style to explain the difference between 3D and 2D laparoscopy, its advantages, possible disadvantages and the improvements that must be made in the future studies comparing 3D and 2D.

Conclusions
an individual laparoscopic performance in 3D might be affected by multiple factors, but overal, 3D laparoscopy appears to improve the speed and the number of errors made by the surgeon. however more studies are need to be carried out to examine the impact of 3D laparoscopy on clinical outcomes.

ES25-0413 - P172
Posters

Hysteroscopy in Flanders and the Netherlands

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Background

Hysteroscopy is a minimally invasive method for diagnosis and treatment of intra-uterine abnormalities. Complication and failure rates are low because of the direct visualisation of the treated abnormality. Moreover, hysteroscopic procedures replaced 'blind' (curettage) and more invasive interventions (hysterectomy).

The field of hysteroscopy has developed over the years. Changes occurred in hysteroscopic instruments and in the use of energy sources. An important development is the smaller diameter of the hysteroscopic system which makes it suitable for an outpatient setting. Not every gynaecologist, however, has the appropriate hysteroscopic skills or setting to carry out these procedures.

The incorporation of hysteroscopic procedures into daily practice in Flanders is unclear. In the Netherlands 2 surveys were conducted in the past to question the treatment options for polypectomy in an outpatient setting on the one hand and the diffusion of hysteroscopy on the other hand.

We want to study the diffusion of hysteroscopy in Flanders and the Netherlands. Moreover we want to provide an overview of the hysteroscopic procedures implemented, as well as the setting they are performed in.

Methods

An electronic questionnaire (LimeService) will be sent to all gynaecologists in Flanders and the Netherlands. Participation is voluntary and anonymous. After informed consent all gynaecologists are asked to complete the first part of the questionnaire containing general information. The second part is specific for gynaecologists performing hysteroscopy themselves, and inquires about the procedures they carry out.

Results

we expect to send out questionnaires in June 2016. A reminder will be send 6 weeks later to maximise the response rate. Results will be analysed by the end of September 2016, and if selected for the ESGE Congress in October 2016 we will present the results there.

Conclusions

The field of hysteroscopy is developing and this minimally invasive technique is a valuable alternative for 'blind' and more invasive interventions. Our questionnaire inquires about the current implementation of hysteroscopy, and based on the results we will provide an overview of the incorporation of this technique in gynaecological practice in both Flanders and the Netherlands.

ES25-0415 - P173
Posters

Hysteroscopic and laparoscopic sterilization – comparison between methods

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Background
Female sterilization is one of the most frequent contraceptive methods chosen all over the world. There have been some reports of complications after hysteroscopic sterilization and the FDA recently reviewed the conditions of optimal use of this method in the United States. Our aim with this study was to compare hysteroscopic and laparoscopic methods of female sterilization concerning execution time, complication and success rates.

Methods
Retrospective analysis of clinical charts of women who underwent elective female sterilization at our center between January 2011 and June 2015, either by hysteroscopic (Essure®) or laparoscopic methods. We registered variables regarding age, comorbidities, obstetric and gynecological history, surgical times for each intervention and complications. We defined complications as immediate during the procedure, precocious (< 3 months) and late (≥3 months).

Results
In this period there was a total of 245 women undergoing endoscopic sterilization, 42,4% laparoscopic and 57,6% of them hysteroscopic.The mean age at the time of the procedure was 38 years (±4,41), 50,8% of them had had at least one voluntary interruption of pregnancy, 20% were smokers and 35,9% had at least one cardiovascular risk factor.Time of surgery was significatively inferior in the group of hysteroscopic sterilization (14,8 versus 36,67 minutes; p=0,000) and immediat success rate was 91,2% for hysteroscopic sterilization and 90,8% for laparoscopic sterilization, no statistically significant difference was detected. Immediat complications in laparoscopic procedures detected were: 8 cases of conversion to laparotomy and 1 case of uterine perforation. No other complications (precocious or late) were registered. As for hysteroscopic sterilization there were 10 immediate complications, all of them corresponding to non-insertion of one or both micro-inserts. There was only one case of precocious complication: one of the patients reported pelvic pain after the procedure, later diagnosed with pelvic adhesions, probably due to previous laparotomy surgery complicated with haemorrhage. No other precocious or late complications were registered.

Conclusions
The set of our results didn´t show difference in success and complication rates, although hysteroscopic sterilization is characterized by significatively less surgical time.

ES25-0416 - P174
Posters

Total laparoscopic hysterectomy for benign disease: analysis of outcomes and complications

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Background
To analyze surgical outcomes of total laparoscopic hysterectomy (TLH) for benign disease

Methods
361 consecutive cases were prospective collected from January 2011 to June 2015 of women who underwent TLH in St. Chiara Hospital in Trento, Italy. Clinical, demographic, surgical and intra-perioperative data were recorded. Complications were graded by Clavien Dindo morbidity scale.

Results
Main indication for TLH was uterine fibromatosis (78.6%) and mean uterine size was 327±249 (range 30-1800 g). Mean operating time was 115±36 mins and no laparotomy conversion occurred. Mean length of hospital stay was 2.6±1.1days (range 12-1 days). Complications requiring surgical intervention in general anesthesia occurred in 3 patients (0.8%): one hydroureteronephrosis, one bowel adhesions and one port side hernia; complication requiring surgical intervention without general anesthesia occurred in 6 patients (1.6%): two hydroureteronephrosis, one vaginal cuff dehiscence and three vaginal cuff bleeding.

Conclusions
Total laparoscopic hysterectomy is a procedure with a low incidence of complications

ES25-0419 - P175
Posters

Robotic biopsy of the uterus standardized technique (Robust): a new technique for uterine biopsy prior to minimally invasive surgery

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Background
According to the FDA Laparoscopic Power Morcellation should be avoided as long as a reliable pre-operative diagnosis of uterine sarcoma is not available. To distinguish a malignancy from a benign condition the only gold standard is a uterine biopsy. However, there is no routine tool allowing a reproducible, reliable sampling with high sensibility and specificity.

Methods
ROBUST includes a robotic system to position an ultrasound probe and the needle guide attached to it. A «co-manipulation mode » is used to control a robotized probe holder. Trinity® is an ultrasound imaging system with organ tracking and accurate cartography developed for prostate biopsies. Placing a needle into the uterus under ultrasound guidance with high accuracy is not obvious , a challenge met for the prostate biopsy. Trinity is a medical device providing a 3D cartography of the organ, with image fusion between MRI and ultrasound images, allowing MRI targeting and providing a detailed diagnosis. The ROBUST project is to provide such tools for the uterus diagnosis and extent the usability of Trinity.
New MRI/US fusion algorithms will be developed . The consortium will be the first team worldwide to lead this task. Biomechanical study of the uterus will be performed to ensure the robustness and the efficacy of the image fusion. In addition, the fusion between intraoperative US images will allow the tracking of the organ displacement and deformation (based on the patented Organ Based Tracking technology). A graphical interface dedicated to uterus diagnosis and puncture accessories will be developed during the project. Moreover, to provide a solution to the difficulties of the probe navigation into the uterus and of targeting multiple areas, a new robotic assistance will be developed. It will provide the guidance of the clinician gesture through a comanipulated mode. It will allow an optimized targeting, exploiting the MRI targets of the imaging system, and taking account of the anatomical limits with a force feedback system.

Results
A robot called APOLLO, an endorectal probe holder designed to assist prostate biopsies and currently evaluated through a pilot clinical trial along with the development of a real-time image-based control law to automatically adjust the position of the probe to reach targeted areas such as suspicious lesions are the key tools in providing an accurate uterine biopsy with high positive and negative predictive values.

Conclusions
Pre operative diagnosis of uterine sarcomas is challenging, based on MRI, Endometrial sampling, clinical history and examination. The gold satndard in any preoperative diagnosis of malignancy being an accurate biopsy the developpement of such a tool based on new algorithms of imaging and robotic sampling should be the next step in performing safer Minimally Invasive Surgeries

ES25-0425 - P176
Posters

Laparoscopic surgery for tubal infertility

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Background
10-15% couples of reproductive age are infertile. Tubal infertility accounts for 35 % of these couples. Therapeutic options are represented by laparoscopic surgery or IVF. In countries where 3 IVF procedures are usually reimbursed laparoscopic surgery is rarely the first option.

Methods
In this paper we tried to focus on the basic principles regarding laparoscopic tubal surgery, because many times due to financial reasons this is still the first treatment accepted by the couple.

We consider that the basic principle for tubal laparoscopic surgery is ″Less is more″: when the tube is less affected and the surgery is limited there is greater chance to restore the anatomy and function, so greater chance for pregnancy. In this paper we present 3 cases where many times IVF is considered to be the first choice, but we performed laparoscopy due to many reasons (financial, fear of IVF treatment): unicorn uterus with only 1 blocked tube, 35 years old patient with only 1 obstructed tube left post salpingectomy for ectopic pregnancy and diminished ovarian reserve and laparoscopic tubal reanastomosis after tubal ligation as contraceptive method.

Results
In the first case the patient obtained pregnancy 3 years after the surgery and delivered at 35 weeks a healthy baby. In the second case the patient had a pregnancy in less than 1 year and delivered at term. The third case is part of a 5 patients series operated in the last 6 months where we performed tubal reanastomosis. Hysterosalpingography performed after surgery demonstrated tubal patency for at least 1 tube 3 months later but no pregnancy yet.

Conclusions
We consider that laparoscopic tubal surgery is still an option when the technique is optimal and the chances are correctly appreciated and explained to couples.

ES25-0426 - P177
Posters

Patient experience in Sheffield with outpatient minitouch endometrial ablation

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Background

The Minitouch endometrial ablation device uses microwave energy, delivered from a small intracavity induction loop, to destroy and treat heavy menstrual bleeding. Its small diameter (3.6 mm) allows insertion without cervical dilatation. Uterine cavities of 4–5 cm receive a single 72-second instalment; longer cavities require a second or third shorter exposure.

Methods

Prospective, observational study. Pain scores were collected during and after treatment (100 mm visual analogue scale, VAS); scores of ≥ 70 mm were interpreted as severe pain. Telephone review using Likert-style responses was performed 24 to 48 hours after procedures. A postal questionnaire was sent at 6 months.

Results

Outpatient Minitouch was performed on 36 women, mean age 43 years, during a 15-month period. Patients (34, 94%) took ibuprofen, paracetamol or co-codamol one hour pre-treatment, intracervical block was given in 26 (72%) and 22 (61%) used Entonox. None required cervical dilation. Uterine cavities measured 3.5 cm to 7 cm. Adverse events included vasovagal (1, 3%), nausea (9, 27%), vomiting (5, 15%), and readmission (6, 17%) because of pain.

Mean treatment pain was 68.5 mm (SD 27.36), with 20 (56%) ≥ 70 mm; 34 recorded a mean score after 30 minutes of 41 mm (SD 28.33), with 9 (25%) ≥ 70 mm. Pain was more severe after than during treatment in 4 (11%). Pain scores did not correlate with more treatment instalments.

During telephone review, 20/33 (61%) reported severe/unbearable pain during or after treatment. However, only 8 (24%) would have preferred a GA, with 8 (24%) not recommending it to a friend.

Patients reporting mild/moderate pain had mean treatment score of 58.42 mm; those with severe/unbearable pain 78.8 mm ($p = 0.0308$). Mild/moderate post treatment mean pain score was 29.05 mm, severe/unbearable mean was 54.93 mm ($p = 0.0099$).

At six-month follow up of 16/17 patients 7 (44%) have amenorrhoea, 6 (37.5%) hypomenorrhoea, and 3 (19%) no change; 1 (6%) woman is requesting hysterectomy.

Conclusions

Pain scores with Minitouch endometrial ablation indicate severe pain in over half of the patients and are reflected in nearly half of the women reporting severe or unbearable pain. Despite this, relatively few would have preferred a GA and most would recommend the procedure to a friend. We believe patients' own perception is more indicative of acceptability.

Our analgesia regime for the outpatient setting will be revisited. Local anaesthetic to the cervix is unhelpful, but may be worth inserting at the fundus.

Nausea or vomiting occurred with severe or unbearable pain. Reduction in pain should help reduce these symptoms.

Amenorrhoea and hypomenorrhoea at 6 months in most patients (81%) suggests the device has potential for managing menorrhagia.

ES25-0432 - P178
Posters

A bizarre finding during a planned laparoscopic myomectomy

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Background

Operative surprises and unusual findings are often encountered during laparoscopic and open surgery, even if planned. Uterine myomas are not infrequently mistaken for other pelvic masses, and vice versa. Such masses could be of adnexal, gastro-intestinal, urinary, or even retro-peritoneal origins.
Retro-peritoneal masses stem from a very diverse pathological categories as well as various anatomical structures. These could be arising from the spine, muscles, ureters, vascular tree or the retro-peritoneal connective tissue. The pathological nature of such lesions may be congenital, inflammatory or neoplastic.
Clinical history and examination, in addition to the various imaging modalities, often help predict the nature of such lesions with a fair degree of certainty. However, intra-operative surprise findings are not infrequent.

Methods
We describe the unexpected discovery of a large (18x14 cm) retro-peritoneal mass, during a planned laparoscopic myomectomy for a 42 years old lady complaining of chronic pelvic pain and primary infertility.
The pre-operative ultrasound scanning and MRI revealed a uterine myoma, 10x8 cm, related to the right adnexa. On laparoscopy, that large retro-peritoneal mass was discovered, and consequently dissected. The mass was bounded anteriorlyby the urinary bladder, posteriorly by the sacral promontory, laterallyby the external iliac vessels, medially by the sigmoid colon and rectum, and inferiorly overlying the iliac bifurcation, and the ureteric crossing.
Laparotomy was done to complete the dissection, especially in relation to the great vessels, and the mass sent for histopathological examination.

Results
Histopathological examination revealed scattered Bilharzial ova, focal agregates of inflammatory cells with foreign body giant cells, and dense collagen fibers forming a large mass. Sections were immune-stained for smooth muscle actin revealing negative staining excluding the possibility of a smooth muscle neoplasm.
The final diagnosis was confirmed to be a bilharziasis with surrounding inflammatory reaction and dense fibrosis forming a large retro-peritoneal Bilharzioma, related to the illiac vessels.
On reviewing the medical history of the patient, potential exposure to bilharzial infection was revealed.

Conclusions
To the best of our knowledge, this is the first reported case of such patholoical finding in such location.
Ova of the urinary bilharzial species, Schistosoma haematobium, are known to penetrate into the walls of the venous plexus of the urinary bladder to be carried away by the blood stream.
However, in this particular case, they seem to have penetrated or invaded the walls of the illiac veins, at the site of the pelvic brim, and consequently, triggered a granulomatous reaction that has lasted for many years, ending in such a large, and bizarre retro-peritoneal mass.

ES25-0433 - P179
Posters

Ovarian stone!

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Background

Calcification can occur in virtually any tissue in the human body. However, calcium deposition in tissues usually occurs on top of a degenerative, inflammatory, or a neoplastic condition.
Ovarian calcification has been associated with a number of neoplastic diseases. It has previously been thought to be a stigma of a malignant ovarian tumour, but it is now known that more benign than malignant ovarian neoplasms are associated with calcifications.
Examples of these are mature cystic teratomas (dermoid cysts) and ovarian fibromas.

Methods

We describe a case of a 44 years old lady, who presented with chronic pelvic pain. Clinical examination revealed a mass, firm, non-tender, mobile and related to the left adnexa, about 10 cm in size.
Radiological investigations, ultrasound scanning and MRI, confirmed the finding of a 10x8 cm left ovarian mass, with dense calcification. Tumor markers were within reference ranges.
Initially, the patient was submitted for diagnostic laparoscopy, followed by a formal staging laparotomy.

Results

Histopathological examination macroscopically revealed the left ovary to be replaced by an irregular 10x8 cm stone-hard mass. This "stone" had to be vigorously cut by a saw to be able to open it up. The cut surface was bone-like in texture, whitish in colour, and looked almost like bone trabeculae.
Microscopically, the ovarian tissue was replaced by a dense matrix of collagen fibers, and spindle-shaped fibroplasts, along with extensive calcium deposition. Diagnosis was densely calcified ovarian fibroma

Conclusions

Ovarian calcification is associated with a multitude of conditions, both neoplastic and non-neoplastic, benign and malignant. We have reported a case whereas the whole ovary was replaced by a sizable, very dense calcified fibroma, turning it into an "ovarian stone".

ES25-0440 - P180
Posters

Pyogenic spondylodiscitis after colposacropexy

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Background
Piogenic spondiloliscistis includes a spectrum of spinal infections such as discitis, osteomyelits, epidural abscess, meningitis, subdural empyema, and spinal cord abscess. This is a rare complication of sacral colpopexy, but can lead to devastating consequences for the patient.

Methods
We present one case of pyogenic spondylodiscitis following sacral colpopexy. In addition, we discuss other cases reported in the literature.

Results
Techniques to decrease rates of infection include proper identification of the S1 vertebra, awareness of the suture placement depth at the level of the sacrum and at the vagina, and early treatment of post-operative urinary tract and vaginal infections. We will illustrate our presentation with videos showing the proper technique and its pitfalls.

Conclusions
Awareness of symptoms, timely diagnosis and multidisciplinary approach to management is essential in preventing long-term complications.

ES25-0445 - P181
Posters

A review of the incidence of post operative laparoscopic wound infections

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Background

The primary aim of the study is to determine our unit's rate of post operative laparoscopic wound infections. Our current complication rate of wound infections are underestimated as many are treated by primary care physicians and emergency gynaecology services. In addition, this study aims to explore possible variables in clinical practice that may influence the rate of wound infections. These include grade of surgeon, length of procedure, type of procedure, preoperative antibiotics and skin closure method. After determining the approximate incidence, our aim is to implement changes to reduce the rate of laparoscopic wound infections.

Methods

This study is a retrospective review of 100 laparoscopic cases performed within three hospital sites within one trust from the 1st of October 2015. The data includes all surgeons performing laparoscopies during this timeframe. Data was collected from an electronic recording system of theatre procedures. In addition, data entries from the accidents and emergency departments and the emergency gynaecology clinic's electronic data base were be checked for each patient. General Practitioners were contacted for information of any recorded consultations addressing post operative wound infection and treatment.

Results

The primary outcome was the rate of wound infections documented and treated by the emergency stream or primary care. Secondary outcomes were viewed including grade of doctor, laparoscopic entry technique, length and type of procedure, intra operative complications, preoperative antibiotics, skin closure type and positive wound swab culture.

Conclusions

Minimal access surgery has significantly reduced the risk of post operative complications associated with wound infections as compared with traditional open methods. Our study has estimated our current complication rates of post operative laparoscopic wound infections with the aim of modifying practice to further reduce this risk.

ES25-0456 - P182
Posters

Lymphatic spread of endometriosis to a pericardial lymph node: a case report

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Background
Endometriosis is a benign estrogen-dependent disease, capable of lymphatic spread. In the pelvis, endometriosis involving lymph nodes (LNs) (presence of endometrial stroma and müllerian glands with no local reaction) has been described in the literature with prevalence rates between 20-30 %.

Methods
A 36-year-old woman, nulliparous, with previous laparoscopic eradication of pelvic deep infiltrating endometriosis (DIE), had a persistent long history of chronic pelvic pain, dysmenorrhea, dyschezia and catamenial right shoulder pain, worsened during inspiration. Results of physical examination (thoracic computerized tomography (CT) scan, spirometry) founded wide diaphragmatic and suspected pericardial endometriotic disease (25 mm nodule), bilateral pleural fluid level, postero-basal bilateral pulmonary atelectasis, and a restrictive ventilatory defect. Regarding the pelvic field, stenotic DIE localization in recto-sigma junction was confirmed by transvaginal ultrasound and barium enema. DIE was also described involving the recto-vaginal septum, the left uterosacral ligament and the posterior vaginal fornix. First of all, a pelvic laparoscopic radical DIE eradication was performed with total hysterectomy and recto-sigmoid resection. During this procedure, extended adherences between Glisson's capsule and right and left diaphragmatic cupolas were dissected and multiple infiltrating nodules involving the right hemidiaphragm and the diaphragmatic side of the pericardium were discovered. The patient underwent, then, a combined thoracoscopy and mini-thoracotomy for excision of all the thoracic DIE lesions (resection of multiple parietal full-thickness nodules involving the right hemidiaphragm, the right parietal basal pleura, the right cardiophrenic angle and the surrounding pericardial fat). The pleural window was closed with separated non-absorbable sutures and the damaged diaphragmatic area then covered by a polypropylene mesh.

Results
Any peri- or post-complications were noted. The histology revealed amongs other, endometriotic implants in one of four resected peri-cardial LNs (eight negative recto-sigmoid LNs were also described).

Our data add to the growing evidence that endometriotic cells are able to migrate from the primary endometriotic lesion and colonize regional LNs. Endometriotic cells share a number of characteristics with malignancy such as abnormal morphology, deregulated cell growth, cellular invasion and neoangiogenesis. Lymphangiogenis in endometriotic lesions is poorly understood and lymphatic spread of the disease seems to be underestimated. The literature suggests that the endometriotic LN invasion is correlated with the number of retrieved lymph nodes and the size of the primitive lesions.

Conclusions
To our knowledge, we described the first case of lymphatic spread of endometriosis to a pericardial node. More studies are needed to understand the mechanism, the frequency and the prognosis of endometriosis LNs involvement and to clarify the controversial impact of this dissemination on the DIE recurrence risk after surgical treatment.

ES25-0458 - P183
Posters

Die and multi-parity

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Background

Deep endometriosis is classically associated with infertility even if the direct link between endometriosis and infertility have never been understood.

It is also classical to observe that most of the patients who present with deep endometriosis are either nulliparous or pauci parous.

On the contrary, In the Mena region we observe a lot of multiparous patients with deep endometriosis lesions.

Methods

In our study, we included 247 patients who were diagnosed with endometriosis in our department between 09/2012 to 05/15. All diagnosis were confirmed by laparoscopy and histology. For the purpose, we considered only the patients in stage 3 and 4 endometriosis, as the infertility in that group is usually higher. Among this group, 32.4% were in stage 3 and 5.8% were in stage 4. The parity, the date of the first child as well as the interval between pregnancies were noted.

Results

Among the patients observed with a stage 3 and 4, 49% were parous. It appeared that in our group the date of the first pregnancy is at an early age and that the interval between different pregnancy was short. Those results are different compared to the usual parity of the occidental patients with deep endometriosis

Conclusions

Different hypothesis could be discussed to explain the difference observed between our group and the usual incidence in occidental deep endometriosis population .

The early age at first pregnancy could be the reason for higher fertility compared to occidental women who try pregnancy after 30. The short interval between pregnancies could also explain the fact by preventing the disease to express its capacity to reduce spontaneous fertility.

Social factors and pressure can also be discussed. In the Mena region

It is traditional to get married young. At this early age the fertility is higher. Another point of discussion would be the social pressure. Dyspareunia which quasi constantly exists with deep endometriosis, can make the patient avoid sexual intercourses, in order to avoid pain. In many societies in the MENA region, due to social pressure, some patients tend to tolerated the pain during sexual intercourse, rather than abstain from coitus. Therefore, the frequency of intercourses shall be investigated as an important factor of infertility in those patients with deep endometriosis.

Conclusions: If the fertility seems to be less affected in the deep endometriosis patients from the MENA region compared to the occidental population, the relationship between deep endometriosis and infertility should be questioned. It could be that part of the infertility observed in the occidental population of endometriosis, is more a consequence of the pain and the social habit rather than the direct toxicity of the disease itself.

ES25-0461 - P184
Posters

Review of analgesic and anesthetic methods for office hysteroscopy

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Background
Although office hysteroscopy is generally well- tolerated, it is sometimes painful and may require analgesia or anesthesia for its performance. This is a review of literature to find evidence on the effectiveness of the different methods used to decrease pain perception during office hysteroscopy and identify risk factors of a painful hysteroscopy.

Methods
We have performed a literature search of Medline, Embase, Pubmed and the Cochrane Library of Systematic Reviews for meta-analysis and randomized controlled trials that assess pain management in office hysteroscopy setting and studies that identify risk factors for painful hysteroscopy. Evaluation for risk factors and evidence of pain reduction of pharmacological and non- pharmacological analgesic methods was also performed.

Results
Non- pharmacological methods such as the use of vaginoscopy or minihysteroscopes are advisable to avoid producing pain. The only pharmacological method that has demonstrated its effectiveness in several meta-analysis and reviews is paracervical block, reducing pain during and 30 minutes after hysteroscopy. NSAIDs seem to be useful in the postoperative period. Evidence is not clear about combination of techniques or misoprostol.

Conclusions
Although this review limited because of heterogeneity of the studies included, it gives a wide overview of the different methods that are available to alleviate pain in office hysteroscopy. Paracervical infiltration is the only anesthetic procedure that has proven effective for pain reduction. Other methods such as NSAIDs, topical anesthetics, misoprostol or nitrous oxide have to be better studied to reach conclusions on their effectiveness.

ES25-0464 - P185
Posters

Laparascopic management of rare pelvic mass-benign cystic peritoneal mesothelioma

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Background
19 years-old patient presented with intermittent lower abdominal pain for 4 months duration. The pain was described as severe prior to micturation with significant relief in symptoms towards the end of her void. This lady has no significant past medical history apart from polycystic ovarian syndrome. Departmental Ultrasound scan (USS) showed a 9.4 x 4.5 cm midline complex cystic lesion arising from the pelvis but was of undetermined orgin. CT scan described a central cystic mass arising between and adjacent to both ovaries and extending towards bladder. Tumour Markers were all normal. The case was discussed at the local multi disciplinary team meeting and the decision was made to proceed to laparoscopic excison of the pelvic mass.

Methods
Laparoscopy findings revealed a 10 cm multicystic complex mass arising from bladder peritoneum. No other pathology was noted at the time of laparoscopy. The mass had a very unusal apperance (image included). This report describes the systematic techniques used to completely excise the lesion from the pelvis. Histology reported a rare pelvic tumour - Benign cystic mesothelioma. Patients symptoms completely resolved following surgery.

Results
A literature review was conducted to assertain the incidence of this rare tumour. Benign multicystic peritoneal mesothelioma (BMPM) is uncommon lesion usually occurring in women of reproductive age. We failed to identify any cases described in the UK and there is less than 150 cases of benign multicystic mesothelioma described in the literature. Typically the lesion comprises of multiple grape-like clusters of cysts which are lined with mesothelium and separated by fibrous tissue components. There are no proved risk factors for cystic mesothelioma, but cysts are commonly found at sites of prior surgery or pelvic inflammatory disease. BMPM primarily occurs in the pelvic peritoneum. The condition can effect either sex but there is a substantial female predominance. Takenouchi et al, reported that 81.2% of cases occurred in women. The pathogenesis of this disease remains unclear, although many agree that it is likely the result of a chronic inflammatory process as in the case of endometriosis.

Conclusions
BMPM is a rare tumour which makes preoperative diagnosis challenging. The most common presentation is as an incidental finding on imaging since many patients are asymptomatic. Unfortunately imaging such as USS or CT scan cannot differentiate this type of cystic mass from other pelvic pathology. A systematic technique must therefore be employed when excising such lesions. The characteristic behavior of BMPM is benign; however, rare cases of malignant transformation have been described.

ES25-0467 - P186
Posters

Incidental finding of cervical endometriosis in a woman presenting with intermenstrual bleeding

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Background
A 47-year-old woman presented with a two year history of intermenstrual bleeding and menorrhagia. She had a previous vaginal delivery and was not using hormonal contraception as her husband had undergone a vasectomy. She reported a normal cervical smear history and previously had been treated with a Mirena coil, which failed to control her symptoms of intermenstrual bleeding therefore removed at her request.

Methods
Ultrasound showed a bulky anteverted fibroid uterus, with an endometrial thickness of 5.4mm and normal ovaries. She was unable to tolerate a speculum for pipelle biopsy, however bimanual examination revealed a small, firm but fluctuant cervical mass, which was tender on palpation.

Examination under general anaesthetic and hysteroscopy was performed, revealing a 1cm x 1cm blue-black lesion on the anterior cervix at the 2 o'clock position. The cystic lesion was excised using monopolar diathermy and 3mls of fluid resembling that from a chocolate cyst was drained. Hysteroscopy was normal.

Results
Histopathology showed a cyst like area lined by attenuated glandular epithelium with haemosiderin-laden macrophages, which combined with clinical findings is suggestive of endometriosis.

Conclusions
The cervix is an unusual site for endometriosis, but must be considered in patients presenting with intermenstrual bleeding.

ES25-0470 - P187
Posters

Transvaginal NOTES for adnexal procedures – Technique description

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Background

Natural orifice transluminal endoscopic surgery (NOTES) is a surgical technique whereby "scarless" abdominal operations can be performed with an endoscope passed through a natural orifice (mouth, urethra, anus, vagina) and an internal incision at the stomach, bladder, colon or vagina, avoiding visible scars.
Potential advantages include lower anesthesia and post-op analgesia requirements; faster recovery with shorter hospital stay and work absence; fewer potential complications of transabdominal surgery like wound infection or hernia, ending up with no visible scar and better overall patients satisfaction. NOTES may be the next major paradigm shift in surgery, as laparoscopy was during the 1980s and 1990s.
Transvaginal NOTES (TV-NOTES) seems to be safe and reliable for clinical application in several surgical procedures and can revolutionize the field of minimally invasive gynecological surgery. There are, though, few publications about pure TV-NOTES for gynaecological procedures.
With this study the authors aim to review the published data about TV-NOTES for adnexal procedures and describe their surgical technique, highlighting the difficulties encountered and the improvements made after several surgeries.

Methods

Technique: Through a vaginal speculum, incision in the Douglas' pouch and dissection of the posterior rectovaginal space are performed. An Alexis Retractor® is placed along the vagina and through the culdotomy, with its inner ring inside the pelvic cavity and the outer ring at the vulva, with a single port three way device (Gelpoint Path Mini®) attached. Pneumoperitoneum is created and maintained at 15 mmHg. The camera, grasper and coagulating/cutting instruments are introduced in the pelvic cavity. Surgery initiates with visualization of pelvic anatomy. Traction, dissection, coagulation and cut may be preformed to manipulate the specimens to be removed, adhesions and the vascular pedicles. The specimens are extracted through the vagina and the apex is closed by direct suture as for conventional vaginal surgery.

Results

The authors were able to successfully perform several distinct adnexal procedures via TV-NOTES with no post-operative complications and good overall patients' satisfaction.

Conclusions

This procedure is a safe and reliable approach to the pelvic structures. It promotes a fast recovery and low morbidity. Even though TV-NOTES has a demanding learning process and high skills are needed to perform this technique, in experienced hands it is a desirable approach to the adnexa.

ES25-0471 - P188
Posters

Role of immunohistochemical research in the treatment in post-operative patients with myoma in conjunction endometriosis

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Background
We aimed to evaluate the role of immunohistochemical research in the treatment of post-operative patients with myoma in conjunction with endometriosis.

Methods
106 women (mean age – 32 ± 0.93 years) with myoma in conjunction with endometriosis R-AFS classification 1-3 degrees. All women were conducted surgery with laparoscopic myomectomy. Immunohistochemical (IHC) research of tissues was conducted after the operation in all women. All women were divided into 3 groups depending on postoperative therapy: 1 group (25 men (23,6%)) received gonadotropin-realising hormone agonist (GnRH agonist), 2 (27 (25,5%)) – received combined contraceptives (COCs), 3 (54 persons (50,9%)) – had a diversified approach (GnRH agonist during 6 months then COCs too 6 months). All women received therapy for 12 months.

Results
After IHC research two morphotypes which characterised of high and moderate activity of hyperproliferative processes of the pelvic organs were found. Patients in 1 and 2 groups had treatment which not depends of the activity of hyperproliferative processes. In 3 group 38,9% women which received a GnRH and 61,1% women which received COCs had a high activity of hyperproliferative processes and had a high risk of recurrence of myoma. During 12 months treatment 23,6% women had a recurrence of myoma. In groups 1 and 3 frequency of myoma recurrence was lower in comparison with the 2 group (16% and 20,4% compared to 37,03%, respectively ($p < 0,05$)).

Conclusions
IHC research plays an important role in understanding the processes of regulation and progression of myoma and endometriosis. Results of IHC research may help to improve the quality of care, reduce frequent of recurrence, repair reproductive function and improve quality of life.

ES25-0476 - P189
Posters

Combined treatment of women with cervical ectopic pregnancy

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Background
Frequency of cervical ectopic pregnancy (CEP) is less then 1% of all ectopic pregnancies; 1,7 on 10 000 pregnancies.
The aim of our study was to evaluate the effectiveness of modern approaches and technologies for preserving fertility in young patients with ectopic cervical pregnancy

Methods
42 women with cervical pregnancies (ages 25-43 years) were treated in Operative Gynecology department during 10 recent years. 29 of them underwent combined therapy with preoperative methotrexate chemotherapy and minimal invasive surgery (resectoscopic removing of cervical pregnancies) for preserving fertility. In 5 cases with higher blood supply of chorion and its invasion into the cervix we used selective uterine artery embolization (SUAE)– in 4 was femoral artery approach, in 1 – radial artery approach.

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 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 preserve fertility in young women with early cervical pregnancy. In cases of chorion invasion into the cervix SUAE following resectoscopy is a treatment of choice

ES25-0482 - P190
Posters

Laparoscopic correction of pelvic organ prolapse – a successful story of introduction into clinical practice in NHS Tayside

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Background
Laparoscopic sacropexy, introduced in NHS Tayside in 2011 by Dr Zbigniew Tkacz, has become a routinely offered method of treatment for apical pelvic organ prolapse (POP). Through continuous auditing and increasing experience, we have modified our surgical technique and improved care provision. This audit outlines our clinical practice and key lessons learnt, relevant to any apprentice of laparoscopic urogynaecology.

Methods
We conducted a retrospective analysis of case notes of patients undergoing laparoscopic (POP) correction between May 2011 and March 2016. Women were identified via the OPERA database. Notes were examined regarding symptoms, operative morbidity and outcomes. The POP-Q and/or Baden-Walker scoring system were employed to objectively assess pre- and postoperative correction. Complications were categorised as early or late. Patient satisfaction was recorded verbatim in the notes. Information was collated in an MS Excel spreadsheet for analysis.

Results
We identified 87 patients listed to undergo laparoscopic POP surgery with or without hysterectomy. 5 procedures were abandoned or converted to an alternative approach. A total of 82 procedures were subsequently included in this audit; 54 sacrohysteropexy, 17 colpopexy, 4 cervicopexy, 6 LASH with cervicopexy and 1 combined hysteropexy and rectopexy. Mean operating times for laparoscopic hysteropexy, colpopexy and cervicopexy were 113, 138 and 122 minutes respectively. Duration included additional procedures - colporrhaphy, perineorrhaphy and adnexectomy. Maximum blood loss was 500ml with a median value of 20ml. Median length of hospital stay was 3 days.

Early complications: A rectal injury occurred during one procedure (later abandoned) and despite laparoscopic repair, required a temporary ileostomy. Other intraoperative injuries include one case of bladder damage (repaired without any complication) and broad ligament haematoma (managed conservatively). Two patients required admission to the high dependency unit for observation due to surgical emphysema. Late complications: Three cases of mesh elongation therefore recurrence of apical prolapse, dyspareunia, chronic RIF pain, bowel urgency and leg neuralgia. Despite a proactive approach with simultaneous repair of coexisting anterior and/or posterior compartment prolapse, five women required colporrhaphy at a later stage.

Conclusions
Laparoscopic correction of POP was successfully introduced in our centre achieving a 96.5% cure for the apical defects, with an overall patient satisfaction rate of 79.3%. Evolving experience consequently led to the following changes. Mesh pre-stretching is now routine to avoid recurrence of apical prolapse. Bowel manipulator use has been completely withdrawn following one case of bowel perforation. Instead, T lift is used where appropriate. Reports of sacral osteomyelitis convinced us to replace the Protac stapler with Ethibond 0 suture for fixation to the promontory. Patient information leaflets have been updated in light of recent litigation concerning vaginal mesh erosion. We recommend laxatives for three weeks postoperatively and routinely follow-up at three months.

ES25-0488 - P192
Posters

Morphological features of ovaries of rats with experimental hypovitaminosis D3

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Background
The reliable information on the role of vitamin D deficiency in the pathogenesis of polycystic ovarian disease is not enough, it is important to study the changes occurring in ovarian structure in terms of vit-D deficiency at laboratory animals

Methods
In order to examine the role of vit-D in the mechanism of the polycystic ovarian disease development the experimental study at 11 female rats with the dated birthday was carried out. Animals were divided into 2 groups: Gr1 (5 rats) - control (intact animals); Gr2 (6 rats) - animals that have been caused by a state of vit-D deficiency. Animals of the Gr1 were kept in the standard vivarium conditions under natural light and on diet recommended for this type of animal. The animals of Gr2 were caused by holding them on the appropriate (experimental D3 deficiency) diet for 60 days.

At the age of 4 months, the rats were subjected to quick decapitation under ether anesthesia. For the further analysis, the blood was collected; the organs of the reproductive system were removed and weighed. The ovaries and uterus were recorded for the further histological examination. From the paraffin blocks were made the serial cuts of ovaries with the thickness of 5-6 mkm, which was about 100 cuts of one normal ovary. The histological specimens were stained with the hematoxylin and eosin and examined by light microscopy.

Results
The state of vit-D deficiency at rats was confirmed by measuring the levels of $25(OH)D_3$ and total serum calcium. At morphological study, in the ovaries of the control animals with regular estrous cycles, the yellow bodies of three consecutive cycles, moderate amount of follicles at different stages of development, a group of large antral follicles, atresial bodies and accumulation of interstitial tissue cells were found. In studying of morphological structure of the animals' ovaries in a state of vit-D deficiency was identified that in all samples of ovarian tissue against reduction of primordial and immature follicles were present multiple cysts located mainly in the ovarian cortical layer. In the ovarian stroma of the main group were mentioned the focuses of medulla fibrosis, which were distributed to the walls of blood vessels. In the main group was also indicated a decrease or absence of mature follicles and yellow bodies in comparison with the control. In the focuses of sclerosing of stromal component of medulla was indicated restructuring and changes in vessels with non-uniform expansion of the lumen and marked tortuosity, and change in the ratio of parenchyma and stroma.

Conclusions
Summarizing the results of the conducted studies it can be assumed that vit-D deficiency at rats of puberty age directly participates in violation of follicles maturation, formation of polycystic ovaries morphotype and development of follicular cysts.

ES25-0490 - P193
Posters

Hysteroscopic and morphofunctional features of endometrium after uterine fibroids treatments (hysteroscopy, laparotomy myomectomy or uterine artery embolization) among patients in reproductive age

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Background
Verified the methods of uterine fibroids (UFs) treatment among women with reproductive issue to improve condition of endometrium after myomectomy or uterine artery embolization (UAE).

Methods
Prospective study among 182 patients with UFs from 20 to 45 years old who were admitted to myomectomy surgery (2012 -2015). Patients were divided into groups depending on type of surgery, UAE and further treatment. The first group (Gr1, n=30) was undergone by hysteroscopic resection; the second group (Gr2, n=72) - by laparotomy conservative myomectomy. The Gr2 were divided into subgroups: without penetration into uterus during surgery (Gr2a, n= 43) and with penetration (Cr2b, n= 31). The third group was undergone by UAE (Gr3, n = 78), which were divided into subgroups: without fibroid expulsion after UAE (Gr3a, n=48) and with fibroid expulsion into uterus after UAE (Gr3b, n=30). There was the comparison group (Gr-Control, n=34) from healthy patients in reproductive age. Hysteroscopy with biopsy of uterus and cervix was performed for all patients before surgery/UAE and in 6 months after. There were investigated morphology, immunohistochemistry of endometrium, CD-138, inflammatory markers (CD-68, CD-45, CD-16 and CD-56); nuclear estrogen (ER) and progesterone (PR) receptors in glands and stroma cells, and marker Ki-67

Results

Gr1	Uneven focal reduction ER, PR	Intrauterine synechiae n=5 (16.87%)Thinned endometrium n=1 (3.33%) Endometrial polyps n=2 (6.67%) Satisfactory n=22 (73.33%)
Gr2a	Normal	Endometrial polyps n=2 (4.65%) Satisfactory n=41 (95.35%)
Gr2b	Marked reduction of Ki-67 expression and ER, PR (25.4±1.5%–ER; 30.5±3.1%-PR)	Synechiae, thinned endometrium, n=7 (22.58%) Endometrial polyps, n=2(6.45%) Satisfactory n=22 (70.97%)
Gr3a	Moderate increase of inflammatory markers: CD-138, CD-68, CD-16, CD-56, CD-45 and decrease of ER and Ki-67 expression	Thinned endometrium, n=1 (2.08%) Chronic endometritis n=1 (2.08%) Endometrial hyperplasia, n=3(6.25%) Endometrial polyps, n=4 (8.33%)

		Satisfactory, n=39 (81.25%)
Gr3b	Marked increase of inflammatory markers CD-138, CD-68, CD-16, CD-56, CD-45, Ki-67 and decrease of ER (29.3±0.17%)	Deformation of uterine cavity with thinned endometrium, n=1 (3.33%) Intrauterine synechiae, thinned endometrium, n=2 (6.67%) Chronic endometritis, n=4 (13.33%) Endometrial hyperplasia, n=3 (10.0%) Endometrial polyps, n=10 (33.33%) Satisfactory, n=10 (33.33%)

Conclusions

The endometrium after conservative myomectomy without penetration into uterus is the most appropriate for reproductive issue. The endometrial changes after hysteroscopic and conservative myomectomy with penetration into uterus are characterized by endometrial hypoplasia, synechiae, reduced ER, PR and inflammatory markers expression. The endometrium after UAE is characterized by development of chronic endometritis, endometrial hyperplasia and synechiae and marked by increase of inflammatory markers, especially Gr3b. This leads to consider about prevention of endometrial dysfunction after UFs surgery.

ES25-0493 - P194
Posters

The role of Prostap injections for pelvic problems in women: The Birmingham Women's experience

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Background
Prostap injections are widely used for ovarian suppression, treatment of fibroids, endometriosis and chronic pelvic pain related conditions. The provision of a clinic for this purpose allows us to capture patient data which could help in formulating a more effective clinical service e.g providing support to patients with these conditions, an estimation of disease burden and interventions to improve output from these clinics. The aims and objectives were; to identify the indications behind referral to this clinic; to explore the PROSTAP treatment regime, duration, side effects and response to treatment for patients and to compare these findings with MHRA recommendations. MHRA recommends concomitant use of HRT. PROSTAP causes 5% reduction in bone mineral content and a DEXA scan is recommended every two years for patients on prolonged therapy.

Methods
In December 2014 a retrospective audit was carried out at Birmingham women's NHS Foundation trust. There is a bi-weekly dedicated nurse-led clinic for Prostap. Case notes of 68 random patients attending the clinic in July 2014 were retrieved and analysed against the set standards.

Results
A total of 68 notes were included in the audit. All patients were Pre-menopausal. Maximum duration of therapy was 60 months and minimum 1 month at time of audit. All patients received 3.75mg at 4 weeks interval of Prostap except in 7 cases (11.25mg regime used instead). 22 patients were on HRT. Most patients had been on HRT for 1-35 months. Dexa scans were offered to 11 patients only. 7 Dexa scan reports were reported as normal while 4 were awaited at time of the audit. One patient was offered a repeat Dexa scan 2 years after continued therapy. 9 patients had been on 24 months or more of Prostap therapy. Out of these 7 were on HRT and 7 had normal Dexa scans. These scans were recommended at 4,5,9,12 (in 3 cases) and 31 months after prolonged therapy. 54 patients reported complete resolution of initial symptoms with prostap therapy. 38 patients reported side effects from treatment while 30 patients reported no treatment related side effects.

Conclusions
Dexa scans should be offered after 24months of prolonged therapy as per MHRA guidance or earlier if patient reports joint related aches and pains. HRT was only prescribed in 22 patients. 30 patients reported symptoms of menopause whilst on Prostap therapy. HRT use may have helped for these patients. It is suggested that a protocol for Prostap therapy be developed to maximize the benefits of this service and reduce side effects of therapy.

ES25-0494 - P195
Posters

Referrals for hysteroscopy in the One-stop clinic for abnormal findings on Imaging for subfertility patients

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Background
The one-stop clinic at Birmingham Women's NHS foundation trust receives an average of 6 referrals per clinic for hysteroscopy in view of abnormal findings on imaging in subfertility cases, this adds to the overall clinic load. We aim to look at these referrals to see if they result in positive findings on hysteroscopy. This will allow us to gauge accuracy of current diagnostic imaging, review referral criteria and thus improve clinical services.

Methods
This was a retrospective review of subfertility patients referred to the one-stop clinic at Birmingham Women's NHS Foundation trust from March 2013 to March 2014. A total of 78 cases were retrospectively selected for audit. The cases were identified using the radiology database using the search term Hysterosalpingography (HSG). Cases were included in the audit if the HSG was performed for subfertility workup. Notes were retrieved and data collected and analysed using excel.

Results
We were able to retrieve data for 78 patients. The mean age of patients was 34 years and the average BMI was 29. 80% of the included women were nulliparous. 41% had suffered one or more miscarriages. Primary infertility was reported as the reason for referral in 40 (51.2%) patients and secondary infertility in 30 (48.7%) patients. Out of 78 of the cases reviewed, 66 abnormalities were detected on HSG. 42 HSG abnormalities were confirmed in 30 subsequent Ultrasound scans and 18 confirmed on hysteroscopy. 24 HSG abnormalities were not referred for hysteroscopy due to the following reasons; 5 fell pregnant, 3 had fibroids, 7 had normal ultrasound findings, 2 required MRI and in one case a referral was not made. Hysteroscopy confirmed 50% of HSG abnormalities in the referred cases.

Conclusions
There are a high proportion of sub-fertility referrals to the one-stop hysteroscopy clinic. Hysteroscopy has only been able to confirm 50% of HSG abnormalities in referred cases. This indicated that there may be issues with the referral pathway and perhaps patients who may not need hysteroscopy are being referred. It was observed that cases where an abnormal HSG is followed by a normal ultrasound, hysteroscopy referrals have not been undertaken and this practice has not impacted patient care. It is proposed that this should be considered as regular practice by reviewing the referral criteria and altering it to reduce un-necessary referrals. A further recommendation would be to routinely use doppler with all ultrasounds where an intrauterine abnormality has been reported.

ES25-0495 - P196
Posters

Permanent sterilization using Essure® microinsert system. Analysis of side effects, effectiveness and complications

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Background
The aim of this study was to analyse the prevalence of side effects perceived by patients after Essure device placement, and to quantify effectiveness of the method, complications and the need for reoperation.

Methods
A retrospective study was performed reviewing medical data of patients having undergone permanent sterilization using Essure system in our institution between January 2010 and April 2015. The study was completed by a transversal telephonic survey designed to evaluate abnormal uterine bleeding, pelvic pain or any other symptom appearing after the Essure placement with unknown etiology.

Results
During the timeframe of the study, Essure has been placed in 709 patients in the in the Hysteroscopy office. Up to 529 patients were contacted by means of the telephone survey, the mean age at the time of anamnesis was 42.5 years.
Among all the surveyed patients, 106 presented more heavy menstrual bleeding, 57 menstrual irregularity, 11 intermenstrual bleeding; 81 refer mild dysmenorrhea, 34 unspecific abdominal pain, 6 severe dysmenorrhea and 30 new onset of chronic pelvic pain; 38 presented other symptoms. No symptom was manifested in 52% of the patients (252).
Among patients referring pain, a difficult insertion was reported in 15 cases (10%). The contraceptive method previously used is known in 67 of the patients referring abnormal menstrual bleeding: 56% used hormonal contraception.

8.4% patients did not attend the subsequent control with histerosalpingography for tubal occlusion confirmation. Among the patients who attended, 97% had not permeable tubes after 6 months. In 9 cases (1.2%) a laparoscopic tubal occlusion was performed due to the impossibility to insert Essure, or persistence of tubal permeability in both hysterosalpingographies performed at 3 and 6 months after device placement.
There were 15 migrations: 2 of them were expelled, 10 migrations of the device to abdominal cavity requiring laparoscopy, 3 migrations of the device to uterine cavity solved by hysteroscopic approach.
2 cases (0,28%) of pelvic inflammatory disease were reported after Essure insertion; 3 cases (0.42%) of pregnancy were reported (all three patients missed the hysterosalpingography).
In the last months, in 6 cases (0,8%) a laparoscopy has been performed to remove Essure devices because of non-tolerable symptoms (most of them referring pain) with non-concluent etiologic study. Their outcome are unkown yet.

Conclusions
Essure is an effective method for permanent sterilization with a low rate of significant side effects, although an important number of patients attribute to Essure the new onset of heavy menstrual bleeding and pelvic pain.
It is important to planify an adequate follow up of patients having received this method, in order to detect and treat these complications as soon as possible. Further studies are needed to evaluate long-term safety and to define exclusion criteria for Essure placement.

ES25-0507 - P197
Posters

Are animal laboratory models superior to virtual reality simulation in advanced hysteroscopic surgery training - going back to the future

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Background

Advanced hysteroscopic surgery procedures have a slow learning curve and a narrow margin for error.

Recently, due to reduced training opportunities, a major shift in surgical training is towards the use of virtual reality simulation over animal (wet-lab) models. There is limited evidence in favour of one over the other.

We have validated, evaluated and reviewed every single modality available for training in hysteroscopic surgery and aim to present our findings in favour of the animal models.

Methods

We organized an annual three-day hands-on advanced hysteroscopic surgery course where every modality available for training was made available to attendees.

Our animal models included the ‘Cattle Uterus Model' and ‘Pig Bladder Model'.

Candidates were instructed to complete feedback questionnaires, to thoroughly evaluate each of the practical skills stations. The feedback was collected from courses over a two year period.

Results

Simulation of hysteroscopic resection using cattle uterus scored the highest overall score of 94.65, markedly better than computer graphic based simulation stations that scored an average of 83.88 (lowest being 78.50).

Candidates preferred the realism of the resection on the animal models with comments such as it being ‘exceptional', providing them with ‘a real feel of how it works', by improving tactile feedback.

Conclusions

Despite the merits of virtual reality simulators, they are far from representing the real challenges encountered in theatres. We believe that animal models such as the 'Cattle Uterus Model' will facilitate rapid acquisition of skills complementing conventional surgical training, aiming to maximize clinical exposure and experience.

ES25-0508 - P198
Posters

Clinical outcomes, complications and recurrence in 337 laparoscopic cervicosacropexies with subtotal hysterectomy and 115 laparoscopic sacropexies of vaginal vault incase of pelvic organ prolapse

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Background
The aim of this study was to evaluate efficacy, complication and recurrence rates in vaginally assisted laparoscopic cervicosacropexy associated with subtotal hysterectomy, laparoscopic sacrofixation of the vaginal vault in case of pelvic organ prolapse (POP).

Methods
Between 1994 and 2015, 377 cases of POP were treated by vaginally assisted laparoscopic cervicosacropexy associated with subtotal hysterectomy. In the same period, 115 patients were treated by laparoscopic sacropexy of the vaginal vault. All complications and recurrences were prospectively recorded at the time of surgery and analyzed retrospectively. Post operative visit was made 4 weeks after surgey Early and late postoperative complications and recurrence were evaluated. Follow-up ranged from a minimum of 1 year to a maximum of 16 years (mean: 8 years).

Results
After vaginally assisted laparoscopic cervicosacropexy associated with subtotal hysterectomy, success rate was achieved in about 97,35% of the patients. Serious early complications were observed in 2 cases (0.53%). One patient (0.27%) presented postoperative hemorrhage. One patient (0.27%) had a coil placed in the foramen intervertebrale of the second sacral root. Late postoperative complications were observed in 8 cases (2.12%). Two patients (0.53%) presented with lower back pain and MRI signs of L5-S1 spondylodiscitis. Two patients (0.53%) reported lower back pain 3 months after surgery without spondylodiscitis. One patient (0.27%) presented with retrocervical vaginal erosion of 1cm. In one patient (0.27%), the entire mesh spontaneously ejected from the vagina. One patient (0.27%) presented with bowel occlusion. One patient (0.27%) presented with persistent intromission dyspareunia. Recurrence was reported in 10 cases (2.65%).

After laparoscopic sacrofixation of the vaginal vault, 95.65% success rate was achieved. One case of erosion (0.87%) occurred and one patient (0.87%) presented transitory atonic bladder treated with cystocath for 3 weeks.

Conclusions
Here we present a previously undescribed surgical technique for laparoscopic repair of POP. This technique is associated with a 2.65% recurrence rate and 2.65% postoperative complication rate. Concerning laparoscopic sacropexy of the vaginal vault, this technique is associated with a 4.34% recurrence rate and a1.73% complication rate.

ES25-0512 - P199
Posters

Accuracy of ultrasound assessment of volume of pelvic fluid in correlation to the laparoscopically-measured haemoperitoneum in cases of ruptured ectopic pregnancy

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Background

The combination of transvaginal ultrasound and serum human chorionic gonadotropin (hCG) determination has proven to be reliable for the early diagnosis of ectopic pregnancy. The goal of early diagnosis is the prevention of tubal rupture, which is the cause of most related deaths, and is a surgical emergency. Accordingly, suspicion of tubal rupture is an absolute contraindication for medical treatment of EP using methotrexate.

Although, the diagnosis of tubal rupture is obvious when patients are haemodynamically unstable, symptoms in most cases of tubal rupture are more subtle. Ultrasound is gold standard for early pregnancy location, but not very accurate for estimating haemoperitoneum, which an essential feature of ruptured ectopic pregnancy. One diagnostic method to rule out tubal rupture would be to perform a laparoscopy in all cases.

Methods

Retrospective review of laparoscopic management of disturbed ectopic pregnancies over twelve months and correlation with pre-surgical ultrasound reporting. Cases were analysed for blood loss measured during the surgery, estimated reporting of the fluid in the pelvis qualitatively and quantitatively.

Results

There was no standard reporting and ultrasound was not very well correlated with laparoscopic findings. Ultrasound was more sensitive fro larger volumes of haemoperitoneum.

Conclusions

There is a need for consensus for standardised reporting for estimate of fluid in the pelvis and abdomen in cases of suspected ruptured ectopic pregnancies. A quantitative as well as a qualitative measure is recommended.

ES25-0513 - P200
Posters

Preliminary experience with polyvinylidene fluoride (PVDF) mesh for laparoscopic correction of apical pelvic organ prolapse

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Background
Methods and materials used for the treatment of female pelvic organ prolapse (POP) are continuously evolving to improve success rates and minimise associated complications. Our urogynaecology team favours laparoscopic sacrohysteropexy for primary treatment of apical compartment prolapse. We have already gathered substantial surgical experience in laparoscopic sacrohysteropexy with polypropylene mesh and are now focusing on introduction of new meshes to further reduce adverse outcomes related to graft properties and thus improve patient satisfaction.

During our experience so far, we encountered cases of apical POP recurrence in relation to polypropylene (PP) mesh elongation. We conducted a literature review and decided to introduce polyvinylidene fluoride (PVDF) mesh - DynaMesh®. Substantial pre-clinical evidence already exists proving its superiority over PP mesh. PVDF graft has improved long-lasting mechanical and biological properties, which should translate to even better outcomes.

Methods
In order to monitor our practice we conducted a continuous prospective analysis of outcomes of all patients undergoing laparoscopic (POP) correction with the use of PVDF mesh. We introduced this in December 2015 and offer the women a choice of mesh. Medical records were identified via the OPERA database. Notes were examined regarding symptoms, operative morbidity and outcomes. The POP-Q and/or Baden-Walker scoring system were employed to objectively assess pre- and postoperative correction. Complications were categorised as early or late. Information was collated in an MS Excel spreadsheet for analysis.

Results
Seven patients underwent laparoscopic hysteropexy and elected to have DynaMesh graft. One patient required concomitant posterior colporrhaphy and perineoraphy. Parity ranged from 2 to 5 with a mode of 2. All cases except for one were primary POP corrections. Median operating time was 90 min (range 80-135 min). Hospital stay ranged from 1 to 3 days with the mode of 1. Intraoperative blood loss ranged from 0 to 300ml in one case (mode of 0ml). We did not encounter any early or late complications to date, including de novo bladder or bowel problems. The mean follow-up so far is 4 months (range 2 to 7 months). Our success rate and patient satisfaction is yet to be followed-up. There have been no cases of POP recurrence reported.

Conclusions
Growing literature on mechanical and biological properties of the meshes suggest the need to introduce new, improved materials into clinical practice. PVDF grafts already have good safety records in cardiac and general surgery and are widely used in urogynaecology in other European countries like Germany. Our experience in POP correction is continuously increasing, however we should remain vigilant, carefully monitoring our practice to ensure patient safety.

Our findings suggest that introduction of the new intra-abdominal mesh for the treatment of POP can be achieved safely and seamlessly. We aim to continue our data collection to add to the growing evidence.

ES25-0515 - P201
Posters

Sacrospinous fixation, keep or remove the uterus? That is the question

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Background
Pelvic organ prolapse (POP) may occur in up to 50% of parous women. A variety of urinary, bowel and sexual symptoms that have a significant effect on women life style may be associated with the prolapse. Both abdominal sacrocolopexy (ASC) and sacrospinous fixation (SSF) are effective treatments for POP (RCOG/BSUG Joint Guideline July 2015). The aim was to evaluate the role of SSF in the management of apical POP in NHS Lanarkshire.

Methods
Retrospective case note review of 123 cases of SSF between 2009-2014

Results
There was fifty-one vault prolapse and seventy-two uterine prolapse cases. Thirty-six cases (70%) presented with other compartment prolapse at time of SSF operation in the vault-prolapse group compared to fifty-five cases (76%) in the uterine-prolapse group. We diagnosed (21-10) posterior prolapse, (7-22) anterior prolapse and (8-23) anterior and posterior prolapse in the vault-prolapse group and the uterine-prolapse group respectively. Apical prolapse grade (G) (at time of operation) in the vault-prolapse was 27 G2 (52%), 13 G3 (25.4%), 3 G4 (5.8%). Whereas in the uterine-prolapse the later was 44 G2 (61.1%), 17 G3 (23.6%), 2 G4 (2.7%). Thirty cases (58.8%) other repairs were performed during SSF operation in the vault-prolapse group compared to 54 (75%) in the uterine-prolapse group. In the uterine-prolapse group eight vaginal hysterectomies were performed, twelve posterior, eight anterior repairs were performed. Concomitant prolapse surgery was not documented in 19 cases. In the vault-prolapse group there were thirteen posterior, three anterior, five both anterior and posterior repairs. Concomitant prolapse surgery was not documented in nine cases. Surgisis (SIS) graft (Cook medical) was used in three and four cases of the vault-prolapse and uterine-prolapse respectively.

There was no post-operative complication in the vault-prolapse group compared to one case of urine retention who was readmitted after four days of discharge in the uterine-prolapse group. There was four cases (5.5%) of persistent prolapse (presence of prolapse <3 months post-operative) in the uterine-prolapse group compared to one (1.9%) in the vault-prolapse group. There were four recurrent apical prolapses (5.5%) (prolapse >3 months) in the uterine-prolapse group compared to two apical (3.9%) in the vault-prolapse group. There were thirteen cases presented with cystocele and three cases presented with rectocele in the uterine-prolapse group compared to five cases with cystocele and four cases rectocele in the vault-prolapse group.

There were forty-three cases (84.3%) with just one follow up visit in the vault-prolapse group compared to fifty-four cases (75%) with one follow up visit in the uterine-prolapse group. Patient satisfaction was high.

Conclusions
Our SSF results seem to be associated with high objective success and lower re-operation rate. Furthermore, performance of routine concomitant vaginal hysterectomy for apical prolapse might not be necessary. A larger, prospective randomized trial is needed to confirm that later.

ES25-0518 - P202
Posters

23 hour laparoscopic hysterectomy (LH) within an enhanced recovery pathway is safe and does not lead to increased complications

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Background
The Enhanced Recovery Pathway is a perioperative model of care for elective surgery, combining elements of care which reduces the physiological stress response and organ dysfunction due to surgery. This potentially allows patients to leave hospital earlier, implying a cost reduction, without increasing complication or readmissions. We present a prospective observational study of 254 patients undergoing LH for benign indications, performed at the Department of Gynaecology at Royal Surrey County Hospital from 2004 to 2009.

Methods
Clinical data were collected from the per-operative proforma, patient records and discharge summaries. We analysed information given pre-operatively, BMI, previous surgeries and treatments, anaesthesia during surgery, fluids given, operation time, length of stay, complications, readmissions, and final histology, amongst other data.

Results
254 hysterectomies carried out over a period of 5 years were analysed. The indications included AUB, endometriosis, endometrial hyperplasia, fibroids, cervical pathology and vaginal prolapse. The mean BMI of the patients was from 17 to 46. The mean time of surgery was 65 minutes. We found that 90% of women stayed less than 1 day. The few that stayed longer than 24 hours had urinary retention, anaemia or had a delayed discharge due to non-medical patient factors such as living alone. There were 2 conversions to laparotomy due to a broad ligament fibroid in one case and due to severe adhesions in the other. In all 6 cases needed to return to the theatre (approximately 1 per year), and there were 20 readmissions, the majority due to vault hematomas, managed conservatively

Conclusions
LH delivered within an Enhanced Recovery Pathway is safe and does not lead to increased complications, with 90% of patients achieving 23 hour discharge. Multidisciplinary management, preoperative assessment and patient information are key factors to achieve objectives of the Enhanced Recovery Pathway. Another important element to the success of ERP is managing patient expectations, and for this reason pre-surgery written information and specialist nurse counselling are identified as key factors. Intraoperative anaesthetic modifications and postoperative pain management are also important.

ES25-0523 - P203
Posters

Delay, misdiagnosis and unnecessary examinations and surgery before diagnosing endometriosis.

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Background
To evaluate the delay and the alleged misdiagnosis before diagnosing endometriosis.

Methods
Prospective longitudinal cohort study at the Bronovo Hospital in the period 01-05-2014 until 01-05-2015. During the given time all woman with clinical suspicion of endometriosis who visited our focus clinic for endometriosis were included. At time of inclusion all prior diagnosis and all conducted examinations prior to the visit were recorded (including operations, MRI scans, ultrasounds etc).

Results
A total of 372 patiënts was included of whom 253 (68%) where diagnosed with endometriosis, 18 with adenomyosis without endometriosis and 101 had no signs of deep invasive endometriosis based on history, pelvic examination and transvaginal ultrasound. Endometriosis was confirmed by ultrasound in 27.7%, 6.3% by MRI, 49% by laparoscopy. In 21.2% of the patients a double MRI was conducted, 68% had one or more ultrasounds, and 6.3% of the patients underwent colonoscopy. In 77.9% of cases more than one specialist was consulted in the period between first presentation and the eventual diagnosis. Misdiagnosis included IBS, appendicitis, herniation, depression and fibromyalgia.

Conclusions
A proper history, fysical and ultrasound investigation is essential in diagnosing endometriosis. It prevents delay in accurate diagnosis and major costs in healthcare because of unnecessary examinations and surgery.

ES25-0388 - P204
Posters

A combined laparoscopic and hysteroscopic surgical technique for Essure® removal

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Background

Since approval by the FDA in 2002, hysteroscopic sterilization with the Essure® micro-insert (Bayer HealthCare Pharmaceuticals Inc., Whippany, NJ) has become a popular, safe and reliable choice for women who desire a permanent form of contraception.
It has generally been reported to be well tolerated in terms of procedure-related pain. Persistent pelvic pain requiring microinsert removal has been described in a few case reports and series, and was estimated at 0.16% of cases.
The causes cited for pain included malposition of device, cornual perforation, multiple micro-inserts placed in a single fallopian tube, nickel hypersensitivity and complications with concomitant ablation.
Patients with a diagnosis of preexisting chronic pain may be at increased risk of developing pelvic pain after the hysteroscopic sterilization.

Methods

We describe our technique for the surgical management of pelvic pain resulting from Essure® microinserts in our Center (Hospital Universitario Principe de Asturias. Alcalá de Henares. Madrid. Spain).
We perform Single Port Transumbilical Laparoscopic bilateral salpingectomy and, at the same time we do a hysteroscopic approach. Depending on the number of coils in the uterine cavity, we will decide whether we use the laparoscopic strategy to perform the bilateral Essure® microinsert removal or the hysteroscopic one.
Once the extraction has been accomplished, devices have to be examined in order to verify that they are intact.

Results

In our centre, we have already performed hysteroscopic sterilizations with the Essure® micro-insert to 615 women, 4 of which requested that their devices be removed. The removal procedures were also carried out at our hospital.
All of the patients who requested the removal of their devices reported severe pain; and one of them developed some hitherto unknown nickel hypersensitivity.
These patients underwent laparoscopic bilateral Essure® microinsert removal and bilateral salpingectomy, along with the aforementioned hysteroscopic approach. None of them reported pain after the procedure.

Conclusions

From our experience, it is clear that combined laparoscopic and hysteroscopic removal of Essure® microinserts, in the context of persistent pelvic pain after insertion, is a feasible, safe and effective procedure.
A meticulous combined laparoscopic and histeroscopic surgical technique is of paramount importance for achieving successful results.
Plain as the painkilling effects of such microinsert removals are, it should be borne in mind that the chronic pelvic pain prevalence in women who have undergone Essure® sterilizations is no higher than that of the average (3.6%), which is known to increase with age.

ACCEPTED FOR VIDEO WITHIN POSTER PRESENTATION AREA (30)

ES25-0051 - VP001
Video in Poster Session

Hysteroscopic incision of a complete uterine septum with a single cervix

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Background

Complete and incomplete uterine septum represents 22% of the Müllerian anomalies and is the most frequent symptomatic uterine malformation. 41 Years old lady presented to our clinic with the complaint of difficulty in childbearing. On 2D ultrasound and sonohysterography examination endometrial cavity was found to be divided completely, fundal contour appaered normal and she was diagnosed with primary infertility and complete septum uteri.

Methods

Surgical hysteroscopy was performed as an ambulatory procedure under general anesthesia. Two misoprostol pills were administered vaginally two hours before the procedure. Mannitol 5% solution was used as the distention medium. After dilatation of the cervical canal with Hegar dilators up to 9 mm, surgical resectoscope was introduced into the left hemicavity and left tubal ostium was visualized clearly. The septal wall was visually traced from fundus backwards till its most proximal end reaching up to midcervical canal. Monopolar L-type needle electrode was used fort he incision of the septum. The incision was extended towards fundus through the interostial line until the normal myometrial tissue was observed. Finally fundal myometrium was retouched, both tubal ostia were rechecked and the operation was terminated.

Results

The patient recovered and discharged after two hours of bed rest. Follow up exam 2 months later revealed completey normal uterine cavity.

Conclusions

Hysteroscopic incision is an efficient ambulatory surgical procedure for the correction of complete uterine septum.

http://player.vimeo.com/video/164330259?autoplay=1

ES25-0057 - VP002
Video in Poster Session

Robotic assisted reconstruction of cervix and vagina by SIS graft and fusion of hemi-uterus

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Background

This is a 12-year-old girl from China complained of severe periodic pain of abdomen for 2 months.

Methods

Physical examination showed Tanner Ⅳ breasts and Tanner V pubic hair. With neither vagina nor cervix, a hypertension mass of 7cm diameter in the pelvic. Serum concentrations of E_2, T, PRL, FSH, LH, TSH are within normal ranges. MRI showed unilateral uterus in the right side, with the lower segment expanded to 7cm, no sign of vagina nor cervix and absent of the right kidney. She was diagnosed with congenital vaginal and cervical atresia (U4C4V4). The diagnosis was made according to clinical characteristics, physical examination, MRI and classified by ESHRE/ESGE system. We performed robotic assisted reconstruction of cervix and vagina by SIS (small intestinal submucosa, SIS) graft (Cook Medical, USA) and fusion of hemi-uterus.

Results

She recovered well after operation without any complication. And her menstruation is normal without any pain.

Conclusions

Congenital complete vaginal and cervical atresia is rare. Some patient has urinary system abnormality. Robotic assisted reconstruction of cervix and vagina by SIS graft and fusion of hemi-uterus is feasible and safety. However, more cases should enroll and additional studies are required.

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ES25-0058 - VP003
Video in Poster Session

Robotic assisted shaving of deep infiltrating endometriosis of vagina and rectum: three steps procedure

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Background

A 38-year-old woman diagnosed with deep infiltrating endometriosis of vagina and rectum. She suffered of severe dysmenorrhea for 5years, she also has painful intercourse.

Methods

MRI showed deep infiltrating endometriosis in the pouch of Douglas and rectal wall thickening. Physical examination revealed a 3cm diameter nodule in the Douglas pouch. With the help of an experienced colorectal surgeon from Zhongshan hospital we performed robotic assisted shaving of deep infiltrating endometriosis of vagina and rectum.

Results

She recovered well after operation without any complication. After that, her menstruation is normal and without any pain.

Conclusions

Rectal shaving, disc excision and colorectal resection are usually performed in the treatment of deep infiltrating endometriosis of the rectum. From our experiences, invasion of more than 50% of the bowel circumference, multiple nodules, or nodules larger than 3 cm are indications for a bowel resection.

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ES25-0060 - VP004
Video in Poster Session

Every millimeter matters – the important of dissection during sacropexy

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Background

Sacropexy is considered to be very effective in the treatment of apical prolapse or multicompartment defects and becomes nowadays more frequently performed procedure. Reported long-term success rate of sacropexy vary between 78 and 100% especially for apical compartment. The procedure is less successful for anterior and posterior defects. Recurrences in those compartments may be due to the fact that caudal dissection during sacropexy can be more challenging, often limited by poor tissue plane separation and bleeding. Consequently, it is not surprising that the majority of failures following sacropexy occur in the anterior compartment.

Methods

We present a case of patient who underwent laparoscopy due to recurrence of vaginal prolapse after laparoscopic sacropexy. This video presents the technique of proper identification of cleavage planes and use of avascular spaces to prevent intraoperative bleeding which are crucial for safe and successful adhesiolysis especially during reoperations. We discuss also the role of extensive dissection in the prevention of recurrence of prolapse in anterior compartment. The procedure was performed in the Department of Gynecological Surgery CHU Estaing in Clermont Ferrand (France)

Results

During first procedure – laparoscopic sacropexy - due to bleeding during dissection of anterior vaginal wall and bladder, this part of procedure was not performed. Six month later patient was presented with recurrence of prolapse in the anterior compartment. During second laparoscopy after adhesiolysis, deep, caudal bladder dissection was performed before mesh placement with good postoperative result. Our observations presented in this case report confirm data from recent studies that the lower mesh reaches toward the bladder neck, the risk of recurrence in anterior compartment is lower.

Conclusions

Deep, caudal dissection of tissues and proper position of the mesh are crucial for anatomic effect and prevention of recurrence after laparoscopic sacropexy.

http://player.vimeo.com/video/165065552?autoplay=1

ES25-0073 - VP005
Video in Poster Session

Vestigial cyst of the uterus: a case report, from first imaging to laparoscopic resection

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Background

Vestigial cysts of the uterus are a very rare anomaly, and there are few published cases on the subject.
Although it is a benign condition, cysts can vary in size and be large enough to create discomfort and generate compression symptoms.

Methods

The case report presented is based on the analysis of the imaging examinations and medical record available for the patient.

Results

A 41 year-old woman was referred to our clinic for symptoms related to a progressively enlarged uterus.

The patient was gravida 2 para 2 (one c-section and one vaginal delivery) and had no other prior medical history.

In 2009, during her second pregnancy, cystic structures larger than 10 cm of unknown nature were seen on ultrasound.

In 2010, a few months after delivery, ultrasound only revealed a series of smaller subserosal cysts, posterior to the uterus,. The larger cyst was only 4 cm in diameter. The benign appearance and absence of symptoms led to no follow-up.

In 2012, the patient was referred for ultrasound again for a non-symptomatic enlarged uterus. Ultrasound could only visualize a cystic structure with moving liquid content resembling peristalsis. Diagnosis of digestive stasis was given and the patient was lost to follow up.

In 2015, the patient sought care for a significantly enlarged uterus, with abdominal discomfort during physical activity and intercourse, and a visible abdominal bulge.

Ultrasound and MRI allowed diagnosis of a series of large subserosal cysts, located in the posterior wall of the uterus, reaching 16 cm in size. MRI findings were in favor of vestigial cysts of the uterus, with no suspicion of malignancy.

The patient was not interested in radical surgery.

It was decided to perform a laparoscopic cyst resection after puncturing the cysts. Pathology findings confirmed the diagnosis.

Conclusions

Vestigial cysts can be diagnosed preoperatively using ultrasound and MRI. They can be managed surgically by laparoscopic resection in patients who are not willing to undergo hysterectomy.
The accompanying film summarizes the clinical case and shows cuts of the surgical procedure.

http://player.vimeo.com/video/165691681?autoplay=1

ES25-0078 - VP006
Video in Poster Session

Robotic and laparoscopic repair of cesarean section uterine scar

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Background

Uterine scar defect is a known complication of cesarean section associated with abnormal vaginal bleeding, infertility and cesarean section ectopic pregnancy. This video demonstrates the technique of robotic and laparoscopic repair of cesarean section uterine scar.

Methods

We present 2 cases with history of previous cesarean sections that desire future fertility. The first patient has a history of 3 previous cesarean sections and history of cesarean scarectopic. A robotic assisted excision and repair of uterine defect secondary to uterine scar is demonstrated. The patient had an uncomplicated postoperative course and achieved a normal pregnancy 6 months after the procedure. The second is a case of a patient with history of one previous cesarean section. She presented with abnormal vaginal bleeding and secondary infertility, which was believed to be associated with the uterine scar defect. She underwent hysteroscopy and successful laparoscopic excision and repair of uterine scar.

Results

Both patients had uncomplicated postoperative course. Follow up showed resolution of uterine defects.

Conclusions

Robotic or laparoscopic excision of cesarean section uterine defects is safe, effective and feasible in symptomatic patients who desire future fertility.

http://player.vimeo.com/video/165810789?autoplay=1

ES25-0092 - VP007
Video in Poster Session

A laparoendoscopic single site surgery of cervical carcinoma in situ

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Background

The single-port approach using straight, conventional laparoscopic instruments is feasible and safe in the majority of the patients undergoing hysterectomy. The patients benefit from this approach and have less abdominal wounds compared with the traditional laparoscope.

Methods

This patient was diagnosed cervical carcinoma in situ by LEEP. Our video recorded the single-site surgery. The surgery was carried out by two gynecological laparoscopic surgeon. The procedure was as follows: 1.Coagulation and division of the oviductal isthmus and ovarian proper ligaments. 2.Coagulation and division of the round ligaments. 3.Opening the anterior fold of the broad ligament. 4.Opening the vesico-uterine peritoneal reflection and dissecting the vesico-vaginal space. 5.Coagulation of the uterine vessels. 6.Opening the uterosacral ligament. 7.Coagulation and section of the uterine. 8.Closure of the vaginal vault.

Results

The LESS surgery is feasible and safe in selected patients with only minimal skin incisions. The whole operation time was 40min. The intraoperative blood was only 5ml and the time of first exsufflation was 8h. The hospitalization time after surgery was 3days. Only a 2cm scar was left on the patient's abdominal.

Conclusions

In the gynecologic field, laparoendoscopic single-site (LESS) surgery can be performed widely to meet female patients' demands in which they would like to have less surgical scarring. LESS represents a new challenge in minimally invasive surgery and appears to be feasible and safe to perform in a variety of gynecologic diseases. With the good cooperation of the assistant using the uterine manipulator, we could use the regular equipments instead of the pre-bent hand instruments and distally angled sheaths. The operation time had no difference with the regular and the intraoperative blood was almost to 0ml. This video is a good example of such a case.

http://player.vimeo.com/video/166369955?autoplay=1

ES25-0107 - VP008
Video in Poster Session

Inguinal lymphadenectomy by robot

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Background

the abdominal open surgical approach may result in large soft tissue defects and wound-related complications. In order to decrease these troubles, we designed a novel abdominal approach through robot, and to evaluate the feasibility and surgical outcome of a novel technique of robot inguinal lymphadenectomy.

Methods

inguinal lymphadenectomy by robot

Results

This method is more convenient, less blood lost, less complication, less hospital stays. But need more money to deal with the technology.

Conclusions

this method is good choice to manage the vulvar carcinoma.

http://player.vimeo.com/video/166613194?autoplay=1

ES25-0108 - VP009
Video in Poster Session

Transvaginal repair c-s diverticulum

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Background

An abdominal or laparoscopy approach to repair the cesarean section scar diverticulum usually bring more invasiveness and complications ,the aim of this study was to present the new technology of transvaginal management.

Methods

transvaginal management of previous cesarean scar defect

Results

The cesarean cection divreticulum was successfully treated by transvaginal surgery, with less operatting time, less blood lost, less invasiveness, and without evident complications.

Conclusions

Transvaginal management of previous cesarean scar defect a good choice for these condition.

http://player.vimeo.com/video/166613866?autoplay=1

ES25-0109 - VP010
Video in Poster Session

Radical trachelectomy by robot

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Background

The aim of this video is to present the radical trachelectomy by robot.

Methods

The radical trachelectomy by robot

Results

The whole operation tome were 4 hours, the volume of bleeding was 50ml. There were no complications peri and postoperation. It is very flexible to do what we want.

Conclusions

Thus the technology of robot is desire to a wild application.

http://player.vimeo.com/video/166614440?autoplay=1

ES25-0111 - VP011
Video in Poster Session

Our experience with the use of hysteroscopy for elderly women with a metabolic syndrome and endometrial giant polyps

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Background

We use hysteroresectoscopy for women of different ages. There is a certain risk of intraoperative and anesthetic complications when it comes to the group of elderly women. The golden standard to remove polyps is a hysteroscopy with the subsequent removing of polyps and it pedicle.

Methods

This video demonstrates the resection of a polyp of an 86-year-old woman.The polyp was diagnosed during a gynecological examination. It peeked out outside the outward pharynx of the cervix.
The patient complained about bleeding from the genital tract. The presence of the polyp was confirmed by two-dimensional transvaginal ultrasounds that were combined with the dopplerometry.
The patient had hypertension illness 3, obesity of the third stage and atherosclerosis.Before the operation the patient was examined and consulted by the cardiologist. The following intraoperative investigations were conducted: blood pressure, ECG, hearth rate monitoring and capnography.

Results

The dilatation of the cervix of the uterus was conducted using the hysteroresectoscopy of Hegar. After that, a panoramic examination of the uterine cavity was conducted. There was a polyp on a wide basis; mucous membrane was atrophic; also there was a vascular picture with a polyp of 5 cm that filled the entire uterine cavity.
In our work we used a telescope with the acute angle of supervision.
All operative actions we conducted using a bipolar loop in the mode of coagulation- 120Vt with a load of 120 Ohms. The work of the loops provides wide coagulation of the surface that helps to reduce the duration of the operation.
Moreover, the risk of perforation of the uterus is decreased even during the destruction of the mucous membrane in the projection of the corners of pipes and the lateral walls of the uterus.
In the beginning of the operation, the pedicle of the polyp was cut off. Due to the fact that the polyp was huge, it was impossible to cut it off. That is why we used the method of slicing away the thin plates of the polyp with a subsequent evacuation from the cavity of the uterus.
After that there was an ablation of the uterus (a complete destruction of the mucous of the membrane of the uterus).Pathomorphology concluded that it was a glandular-fibrosis polyp; the endometrium was atrophic and without activity of the glands.

Conclusions

1.Hysteroresectoscopy is certainly the golden standard when it comes to the treatment ofthe pathology of endometrium, particularly in treatment of the endometrial polyps. In the postmenopausal period hysteroscopy allows us to verify the diagnosis with 100% accuracy.
2. The age and the somatic state of a patient are not considered to be a contra-indication for hystero-resection.

http://player.vimeo.com/video/166639347?autoplay=1

ES25-0118 - VP012
Video in Poster Session

Easy cases-easy complications! Two videos that show that complications during laparoscopic surgery can happen even in easy cases

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Background

Operative laparoscopy is now a common gynaecological surgical procedure in the majority of countries and it is generally safe, effective, and well tolerated by patients. As with any surgical procedure, however, complications and failures of technique occur. Reported overall complication rates range from 0.2% and 10.3%. Major laparoscopic procedures are associated with a higher rate of complications compared with minor procedures, 0.6% to 18% and 0.06% to 7.0%, respectively. The majority of complications occur during entry of instruments into the abdomen used to create pneumoperitoneum but not only. The aim of this presentation is to present three complications during common laparoscopic procedures in gynecology and discuss methods of preventing future recurrences.

Methods

Case1: A 52 G1P1 menopausal woman with previous cesarean section (CS) and history of breast cancer presented with thickened endometrium during random check-up. A diagnosis of simple endometrial hyperplasia was made by endometrial biopsy with pipelle. She was scheduled for total laparoscopic hysterectomy and bilateral salpigo-oophorectomy (BSO).

Case2: A 59 G2P2 menopausal woman with two previous CS presented with a 5 cm asymptomatic adnexal mass diagnosed during random check-up 2 months ago. The patient was scheduled for laparoscopic BSO.

Results

Case1:During the development of bladder flap unplanned cystotomy occurred because of dense adhesions between the bladder and lower uterine segment (previous CS). The bladder injury was repaired in two layers with a 3–0 absorbable suture and bladder integrity was confirmed by instillation with methylene blue.
Case2:Upon entering the abdomen wall dense adhisions were noted between the bowel omentum and anterior abdominal wall. During dissection of adhesions between anterior wall peritoneum and omentum we entered accidentally the Retzius space. Fortunately, the urine bladder was not injured.

Conclusions

The current cases support the notion that even usual cases and the most metuculus technique may cause complications. Never skip important surgical steps which will make your laparoscopic surgery more easy and quick.

http://player.vimeo.com/video/166734773?autoplay=1

ES25-0125 - VP013
Video in Poster Session

Laparoscopic retroperitoneal lymphadenectomy

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Background

The laparoscopic lymph adenectomy is respected as a standard procedure in specialized centers. If a para aortic lymph adenectomy is required it can be challenging in endometrium cancer as this patients are often of older age with concomitant diseases and a high rate of obesity.
Co morbidity and the high ventilation pressure can inhibit the essential Trendelenburg position. Fatty tissue and the small bowel can be huge obstacles to ensure a radical level of the treatment. On the other hand a longitudinal laparotomy to reach the aimed radically is problematic for the recovery and the wound healing for old and obese patient.

Methods

At the Beginning an umbilical trocar is placed and the insufflation is performed.

On the left side a second 10mm incision is made and with a scissor the fascia is prepared and divided bluntly.The trocar is pushed behind the peritoneum under view from inside. First landmark is the psoas muscle. The fatty tissue is pushed off until the height of the kidney is reached. Then the ureter is visualized but left in his native tissue, which provides a god vascularization. On the bifurcation we clear the hypogastric nerves to be sure that they are not harmed.

Approximately 80% of the lymhnodes of the para aortic and caval trunk we can find on the left side. Therefore it is essential to clear the nodes in this region until we reach the renal artery. To ensure this the lateral, retropeitoneal view is an optimal access to provide high radically. The CO2 pressure of 12mm Mercury is sufficient in holding up the peritoneum.

The collection of the lymhatic tissue is started at the communal artery. The preparation is performed upward at he left side of the aorta. The lateral line forms the psoas muscle. This preparation ensures a complete dissection

Results

The video shows a complete and strict retroperitoneal access with the advantage that hardly Trendelenburg position is necessary and the small bowel is outside. The disadvantage is the unfamiliar view and the reduced access to the cava.

We show the smooth access to the aorta without fighting against bowel or fat. In more then 20 procedures we could perform this strategy even in BMI higher then 42.

Severl times we had a leakage of the gas into the abdominal cavity. But we could manage to finish the retroperitoneal access by an additional 5mm Instrument cranial of the Optiktrocar.

Conclusions

The retro peritoneal approach provides a complete view and access up to the renal artery.

This enables the surgeon to perform a radical treatment without the disadvantage of moving bowel and extreme Trendelenburg position.

http://player.vimeo.com/video/166835678?autoplay=1

ES25-0205 - VP015
Video in Poster Session

Vaginoscopy, a tool for management of vaginal mesh erosion

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Background

The most common complication of synthetic mesh used for pelvic organ repair is mesh erosion with an average rate around 3.4% (65 studies, systematic review); a lower rate of 0.5% for polypropylene.

Vaginal approach is the most preferred for their management, but it excision can be a challenging procedure due to the limited and difficult exposure to perform it.

Methods

Medical history

A 68- year-old postmenopausal woman, hypertensive, diabetes ii, presented 1-year history of vaginal spotting. In 2005, she underwent an abdominal hysterectomy with colposacropexy because of dysfunctional uterine bleeding.
No family history of any malignancies.
The cause of the blood loss was initially interpreted as vaginal atrophy which was unsuccessfully treated with estriol cream

Examination:
Vaginal examination: narrow, deep an atrophic vagina, with a slight bleeding and fetid smell. Impossibility to reach vaginal vault with speculum.
Ultrasound: showed a 12 cm slightly and enlarged vagina. A hyperechoic lesion of 20x19 in vaginal vault compatible with mesh.
Cytology: negative
Vaginoscopy: inflammatory vaginal mucosa with severe atrophy, deep in vaginal vault was found 2 cm mesh erosion.

Results

We aimed to show how vaginoscopy can be a helpful tool in the removal of the mesh, specially while we are treating patients with deep and narrow vagina with severe atrophy.

Conclusions

Vaginoscopy is a simple, easy, feasible technique by amateurs surgeons. Is a very useful tool when the atrophy, narrow and deep spaces limited conventional approach.

http://player.vimeo.com/video/169279142?autoplay=1

ES25-0234 - VP016
Video in Poster Session

Laparoscopic sacrohysteropexy

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Background

Traditionally most surgical techniques for treatment of pelvic organ prolapse (POP) include either total or supracervical hysterectomy. Due to increased patient awareness this has been questioned in the last years, an increasing number of uterus conserving surgical techniques being described in the literature. There is no strong data supporting the fact that hysterectomy improves the outcome of prolapse repair. However, no high level evidence has been published for the laparoscopic approach, though some retrospective studies and case reports for different techniques do exist. Our video describes a uterine conserving technique of Laparoscopic Sacrohysteropexy (LSHP) which we use since 5 years in about 30 patients.

Methods

Patient positioning is steep Trendelenburg; placement of a 12mm optical trocar at the umbilicus, 3 6mm trocars in the lower Abdomen on both sides and in the midline. The dissection starts at the level of the promontory, exposing the longitudinal ligament. Care is taken to the left common iliac vein, which can cross quite far caudally. The peritoneum is incised superficially to avoid injury of the inferior hypogastric nerve. Dissection of the posterior compartment is done until the level of the pelvic floor. The anterior compartment is dissected until the bladder neck. Fenestration of the broad ligament is performed at the level of the uterine isthmus, avoiding the uterine vessels, which should be visualized beforehand. A Y-shaped polypropylene mesh is attached to the anterior vaginal wall and the cervix using non-resorbable braided sutures. The two arms are passed around the uterus through the openings in the broad ligament and sewn to the posterior cervix, where they are united with the posterior mesh, which is sutured to the levator ani muscle. The posterior mesh is sutured to the longitudinal ligament without putting tension on it. Peritoneal coverage completes the procedure.

Results

Duration of the surgery shown in this video was 120 minutes. No intra- and postoperative complications reported.

Conclusions

LSHP is a well feasible technique for treatment of POP, acknowledging the increasing demand for uterus conserving surgery. Current evidence, though low level, shows no significant disadvantages. It seems to be an interesting procedure, especially for younger women with symptomatic POP who want to preserve their fertility. Unfortunately, only few studies and no long term results are available. With this video, we want to focus on the surgical technique of LSHP, as it is currently investigated in a multicenter randomized controlled trial.

http://player.vimeo.com/video/169426592?autoplay=1

ES25-0251 - VP017
Video in Poster Session

Surgical treatments of vaginal septa

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Background

Vaginal malformations can be discovered in infertile patients. They can also be asymptomatic or discovered in patients with dyspareunia, dysmenorrhea or obstetrical dystocia. There are two main types of vaginal septa: longitudinal and transverse. The objective of this video is to describe these malformations and their surgical treatments.

Methods

We report two clinical cases to illustrate the main surgical techniques of vaginal septa.

Results

The first case is about a longitudinal vaginal septum associated with a bicornuate uterus. The surgical technique consists in excising all the septum to avoid postoperative dyspareunia. We use Mayo scissors to excise the septum and continuous suture to repair the anterior and posterior parts of the vagina.

The second case is about a permeable tranverse vaginal septum in an infertile patient with dyspareunia, after three failures of in vitro fecundations. Several surgical techniques have been described such as simple resection, punctured process, Garcia's Z plastie and Granjon's V-Y plastie. The objective of this last technique is to make a triangular mucosal flap with a vaginal base. The incision is extended on the basis of the "V" to form a reversed "Y".

Conclusions

Vaginal septa can be diagnosed in infertile patients. For longitudinal vaginal septa, the objective is to excise all the septum while for vaginal diaphragms, it is to obtain a satisfying cervix exposure. In all vaginal malformations, improve fertility and relieve the patients are other main objectives.

http://player.vimeo.com/video/169443051?autoplay=1

ES25-0259 - VP018
Video in Poster Session

Laparoscopic tubal renastomosis

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Background

Permanent contraception achieved through tubal sterilization is common, however even with proper counselling around 1-3% of women will go on to request a reversal. Ligated, clipped, or banded tubes are rejoined following removal of the damaged portions or remnants in order to restore tubal patency and fertility. Successful reversal through reanastomosis is predicted by both the type of tubal sterilization previously completed and the length of the tubal remnants. Pregnancy rates following reanastomosis range from 40-100% depending on the characteristics of the sterilization and tubal remnants.

Methods

The surgery was performed at a tertiary care hospital in Regina, Saskatchewan, Canada. A 12 mm port with a 0 degree 10 mm video laparoscope was placed at the umbilicus, a 5 mm port was placed 2 cm superior to the left anterior/superior iliac spine with another placed 5 cm superior to this, a third 5 mm port was placed 2 cm superior to the right anterior/superior iliac spine. Following visualization the proximal and distal tubal remnants are dissected away from the mesosalpinx. The scarred ends of the proximal and distal remnants are then amputated without the use of electrosurgery. The reanstomosis was completed with four 6-0 polysorb sutures placed into each tube in an interrupted fashion at the 3, 6, 9, and 12 o'clock positions. The mesosalpinges were then repaired with 3-0 vicryl suture.

Results

Hysterosalpingogram done at six weeks post-surgery confirmed bilateral tubal patency. The patient went on to have two pregnancies, one ending in a first trimester loss, while the other ended successfully.

Conclusions

Laparoscopic tubal reanastomosis using standard surgical instruments and a basic suturing technique is an effective method to restore fertility in patients with prior tubal sterilization.

http://player.vimeo.com/video/169454445?autoplay=1

ES25-0278 - VP019
Video in Poster Session

Laparoscopic treatment of retained placenta accreta

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Background

A 36-year-old woman with a secondary subfertility was referred to our centre. In her medical history, a laparoscopic myomectomy was performed. Four months after this intervention, IVF was started and a pregnancy obtained. This pregnancy ended in a early miscarriage. During the work up at our centre, a remaining intramural mass was identified by ultrasound, which deformed the uterine cavity. A laparoscopic intervention was scheduled to restore the uterine cavity.

Methods

During laparoscopy, the uterus appeared to have a normal size and no myoma could be visualized. An incision of the myometrium was performed where the ultrasound had shown the mass. During the incision, the tissue appeared to be rather soft and excessive bleeding was noticed. All abnormal tissue was excised. Express biopsy showed the presence of trophoblastic tissue. The hemorrhage was immediately stopped by deep suturing, however, approximately 1.5 liter of blood was aspirated from the abdominal cavity at the end of the surgery. Surgiflow ® was applied on the residuals sutures and scar to prevent adhesions. A histological report confirmed the presence of retained placenta.

Ultrasound performed during the post-operative follow-up showed no remaining tissue.

Results

A total removal of retained placenta accreta can be performed by laparoscopy.

Conclusions

Retained placenta after an early miscarriage is rare. In this particular case, this might be caused due to a small interval between laparoscopic myomectomy and the pregnancy.

Pre-operative work-up with ultrasound to diagnose and locate the position of placental tissue should be done thoroughly.

The ability to suture laparoscopically is the primary key to prevent excessive blood loss. Although devices are available to facilitate suturing, they are not always applicable or at hand during certain surgeries.

http://player.vimeo.com/video/169460628?autoplay=1

ES25-0283 - VP020
Video in Poster Session

Complete Endoscopic adhesiolysis in a case of frozen pelvis-abdomen and asherman syndrome

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Background

Frozen pelvis is considered one of the most challenging cases in laparoscopic surgery , being the most cause of conversion to laparotomy. It may present with chronic pelvic pain , dysmenorrhea, dyspareunia and GIT symptoms.
Asherman's syndrome is considered is in the top hystroscopic procedures , needing high skills and my need repeated sesessions.

Methods

This case is 22 years old lady complaining from chronic pelvic pain , dyspareunia , dysmenorrhea and amenorrhea after last cesarean section, which was followed by vesico-vaginal fistula and repair by two midline laparotomies.
Her abdomen shows three scars : midline reaching above the umbilicus , transverse and appendectomy scars.
Preoperative preparation included complete intestinal preparation , assistance by a urologist and general surgeon.

Results

Hystroscopy was done first using cold scissors through office hystroscopy for creation of uterine cavity. Urologist performed cystoscopy and inserted bilateral uretral catheters . Laparoscopic entry was through Palmar's point. Sonicision (Ultrasonic by Covidien) , blunt dissection and cold dissection were used for adheseolysis of omentum allover the abdomen.The right ovary was adherent to the lateral abdominal wall with an ovarian cyst , adheseolysis and cystectomy was done .

Conclusions

Frozen pelvis/abdomen and Asherman's syndrome can be totally managed endoscopically to restore the normal anatomy in one set after proper preparation

http://player.vimeo.com/video/169461467?autoplay=1

ES25-0293 - VP021
Video in Poster Session

Laparoscopic excision of endometriotic nodule of the bladder

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Background

Endometriosis rarely penetrates the bladder mucosa but when it does excision of the portion of the bladder wall become necessary to improve bladder symptoms. In this video presentation of 2 cases, we demonstrate the technique of laparoscopic excision of endometriosis nodule of bladder with and without invasion of bladder mucosa. Careful shaving of the nodule without breaching the mucosa of the bladder is achievable.

Methods

Two (2) case reports (video presentation)

Results

Case Report 1: A 33 years nulliparous, woman presented with dysuria, suprapubic pain, frequency, dysmenorrhoea, dyschezia and dyspareunia. Ultrasound and MRI revealed hypoechoic nodule between bladder and uterus which was indenting the bladder. Cystoscopy revealed extravesical lesion pushing into the bladder but no nodules were seen. At laparoscopy, there was a 3 cm endometriotic nodule with deep scarring in the uterovesical pouch and advanced deep endometriosis with rectovaginal nodules. Laparoscopic excision of endometriosis mass in the uterovesical fold and Laparoscopic radical excision of endometriosis with rectal shaving was performed. At follow-up, she had no urinary symptoms and she made significant improvement in pain scores. The video demonstrate sharp dissection of vesicouterine space with separation of the bladder from the uterus. Bladder nodule of 3cm was reaching upto the mucosa. Methylene Blue dye in the bladder helped to delineate the musculrais from the bladder mucosa. We will demonstrate excision of the nodule from the muscularis of bladder sparing the unaffected mucosa. The muscularis was then stitched with vicryl 2/0 in two layers.
Case Report 2: A 37 years old nulliparous woman presented with chronic pelvic pain symptoms and cyclical cystitis type symptoms unresponsive to antibiotics. Ultrasound scan and MRI revealed extensive pelvic endometriosis with both bladder and rectovaginal involvement. Cystoscopy revealed a bulge of red endometriotic nodules along the posterior wall of the bladder. At laparoscopy, dense scarring and a bladder nodule found within the uterovesical fold and deep rectovaginal endometriosis. Bladder endometriosis was mobilized away from the uterus and the cervix and then it was removed by using the Harmonic scalpel. The gap in the in the bladder was stitched in two layers and watertight seal was confirmed. At follow-up, no leak showed on the cystogram. The patient noticed significant improvement in her bladder symptoms and she had no suprapubic pain. She still has some pelvic pain symptoms related with her rectovaginal endometriosis. She will decide to undergo a second stage operation for rectovaginal endometriosis in future if her symptoms persist.

Conclusions

The patient has to undergo the appropriate diagnostic tests (USS, cystoscopy, MRI) in order to investigate whether the blabber mucosa has been affected. After that the endometriotic bladder nodule can be successfully removed laparoscopically. In case of excision of the bladder mucosa, liaison with the urologist is necessary.

http://player.vimeo.com/video/169492259?autoplay=1

ES25-0296 - VP022
Video in Poster Session

Combined laparoscopic and cystoscopic approach in large deep infiltrating endometriosis of the bladder

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Background

Resection of endometriosis nodules infiltrating the bladder is routinely performed by laparoscopy. However, laparoscopic resection of large nodules may lead to inadvertent loss of healthy bladder tissue surrounding the nodule. This might increase the risk of post operative complications and result in symptoms due to reduced bladder volume. Conversely, when bladder nodules are treated by cystoscopy alone, resection may be incomplete. A combined laparoscopic-cystoscopic approach may allow safe and controlled resection of bladder nodules, with more favorable surgical outcomes.

Methods

The video presents a procedure performed in a 33 year-old primipara who presented with a 40 mm-large endometriosis nodule infiltrating the bladder, and responsible for pelvic pain, dysuria and dyspareunia. The laparoscopic step is carried out by the gynecologist, who separates the bladder from the uterus in order to open the vesico-vaginal space. Concomitantly, by cystoscopy, the urologist identifies the limits of the nodule, verifies the distance of the nodule from the ureteral openings and circumscribes the nodule's limits. The gynecologist then identifies the circular incision previously performed by cystoscopy, and completes the full thickness resection of the bladder wall. The bladder defect is then sutured and other pelvic localizations of the disease are treated.

Results

To date, we have successfully performed the procedure in 3 patients with large infiltrations of the bladder. This represents almost 13% of bladder endometriosis managed surgically in our department from June 2014 to March 2016. Early and mid-term postoperative outcomes were uneventful, with no postoperative fistula, bladder dysfunction, dysuria or pollakiuria.

Conclusions

Combining this laparoscopic-cystoscopic approach in cases where nodules are large allows complete resection of the lesion, yet preserving the maximum of healthy bladder tissue and avoiding ureteral injury.

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ES25-0368 - VP023
Video in Poster Session

Robotic laparoscopic myomectomy: Chromopertubation. Tissue extraction through the umbilical incision

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Background

This was a 29 years old, gravida 0, para 0 who had severe menorrhagia, dysmenorrhea and the desire to conceive. Large subserous, intramural fibroid tumors were seen by transvaginal ultrasound.

Methods

Hysteroscopy D&C, Da Vinci Robotic Laparoscopic Myomectomy and tissue extraction of fibroid tumor through umbilical incision was performed as an outpatient procedure. Hasson open laparoscopic trocar was used in umbilical incision, 8mm trocar was placed in anterior axillary line 2 inches above the umbilical level in each side of the abdomen and surgyquest 12 mm trocar was placed in right mid axillary line, one inch below umbilicus level. Diluted vasopressin solution was injected around tumors, tumors were excised by monopolar hot sheer. Uterine incisions were sutured by 2-0 V loc sutures in layers. Chrompertubation with diluted solution of methylene blue in saline revealed patency of both tubes. All fibroid tumors were sutured together with PDS 0 on CT1 needle to secure removal of all the tumors during tissue extraction. The suture knot was held by an endoscopic needle holder which will direct tumors to the umbilical incision for removal. PCOS was drilled bilaterally with 20 wattage monopolar scissor. Cyst of morgagni and adhesions from the left fimbria were excised and the bleeder was secured by suturing with 3-0 PDS on SH needle. After undocking the robotic system, slight lateral extension of fascia incision, packing the bowels with one wet lap, circular incisions of larger fibroid tumors reduced the diameter of tumor and subsequently facilitated their extraction. Closure of fascia of the large abdominal incisions by using zero vicryl in CT 1 needle.

Results

Larger fibroid tumors can be excised by the use of robotic laparoscopic procedure with tissue extraction without the use of mechanical morcellator.

Conclusions

Patient was discharged in less than 23 hours from the hospital with no complication.

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ES25-0377 - VP024
Video in Poster Session

Laparoscopic management of an eight centimetre fibroid of the round ligament mimicking pelvic mass of unknown origin

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Background

Presentation of the laparoscopic management of an 8 cm round ligament of the uterus fibroid, in a 27 year old woman who presented for dyspareunia.

Methods

An ultrasound scan showed normal anatomy of the uterus and the adnexae, while an 8 cm pelvic mass was identified not in contact with the uterus. An MRI further confirmed the findings and also reported that the consistency of the mass was relevant to a fibroid without a distinct pedicle in contact to the uterus. Diagnostic laparoscopy revealed a large fibroid originating from the right round ligament of the uterus. The fibroid was further removed by morcelation.

Results

The patient was discharged the same day of the operation. Pathology reported normal fibroid tissue without malignancy.

Conclusions

The size, the location of the fibroid combined with the young age of the patient make the current case very interesting in it's investigation and treatment. Apart from a treatment option laparoscopy is the ultimate diagnostic tool of female pelvis pathologies.

http://player.vimeo.com/video/170466316?autoplay=1

ES25-0441 - VP026
Video in Poster Session

Polypoid endometriosis mimicking malignancy

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Background

Tamoxifen has been widely used for adjuvant treatment of breast cancer, but several gynecological side effects have been noted, including endometrial hyperplasia, polyp and carcinoma. Polypoid endometriosis is one of the extremely rare benign complications associated with tamoxifen therapy. This 44 year-old nuliparous patient had had previous surgery for endometriosis and breast surgery for carcinoma with subsequente use of tamoxifen. She presented with suspicious ovarian mass and had hysterectomy with adnexectomy for that reason.

Methods

Objective: to describe a rare case of polypod endometriosis responsive to tamoxifen.

Design: Step-by-step explanation of the laparoscopic approach using videos and pictures.

Results

Interventions: Surgery revealed a pelvic cavity with disseminated implants. Hysterectomy, adnexectomy, infracolic omentectomy and excision of suspicious implants was performed. Histology during surgery excluded carcinoma.

Conclusions

Polypoid endometriosis is one of the extremely rare benign endometriosis and in this case responsive to tamoxifen therapy.

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ES25-0449 - VP027
Video in Poster Session

A rare case of cystic leiomyoma mimicking an adnexal mass

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Background

Leiomyoma of the uterus is the most common type of tumor affecting the female pelvis and arises from uterine smooth muscle. As leiomyomas enlarge, they can outgrow their blood supply, resulting in various types of degeneration, such as hyaline (60% of cases), cystic (4-5%), myxoid (as high as 50%) or red degeneration and dystrophic calcification. Fibroids typically have a characteristic USG appearance, however degenerating fibroids can have variable patterns and pose diagnostic challenges.

The video presents a rare case of cystic pedunculated leiomyoma mimicking an ovarian tumor on ultrasonography.

Methods

A 43-year-old premenopausal woman, P1, presented with a history of lower abdominal pain, mostly on the right side for a period of approximately 1 month. Sonography examination showed a 7 cm mass in the right lower pelvic area, mainly echo-negative and with papillary projections on the inner surface. The right ovary was not visualised and the mass was not attached to the uterus. A preoperative diagnosis of a primary malignant ovarian tumor was made on the basis of ultrasound finding and elevated CA125 levels. The patient underwent laparoscopy. A 5mm 0^0 camera and two work troacars were placed. After inspection of the abdomen, a pedunculated soft, thick-walled mass, arising from at the posterior uterine wall was identified, suspicious for a degenerated fibroid. Using a bipolar coagulator and scissors the mass was resected, then extracted in an Endobag.

Results

The histology revealed a leiomyoma with extensive cystic degeneration.

Conclusions

Pedunculated leiomyomas should be considered in the differential diagnosis of predominantly cystic adnexal mass.

Furthermore, laparoscopy is always useful in cases of suspicious finding in a patient, wishing to preserve fertility.

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ES25-0466 - VP028
Video in Poster Session

Tips and tricks at laparoscopic restoration of pelvic anatomy at deep infiltrating endometriosis

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Background

To present tips and tricks at laparoscopic restoration of pelvic anatomy at patients with deep infiltrating endometriosis

Methods

Deep infiltrative endometriosis is the most aggressive presentation of endometriosis characterized by at least a 5 mm infiltration of the retroperitoneum. The utero sacral ligament is the most frequent localization of the deep infiltrating endometriosis however bowel involvement affect up to 12% of women with endometriosis and urinary tract involvement affect about 1% of women with endometriosis. To restore the normal anatomy and surgical excision of all endometriosis is the most effective method to reduce the symptoms and prevention of recurrence however extensive surgery may lead to potential injury of pelvic nerves, ureter and recto-sigmoid bowel.

Results

The location where ureter enters the pelvic brim should be concluded as anatomical landmark therefore we dissected and delineated the ureters bilaterally. Then sequentially we delineated the uterine artery and obliterated umbilical artery and revealed the pararectal, paravesical and rectovaginal spaces. Afterwards we removed the deep infiltrating endometriosis nodules without any organ injury.

Conclusions

Restoration of normal anatomy before surgical excision of endometriosis nodules keeps us from organ injury

ES25-0496 - VP029
Video in Poster Session

The effective use of bladder hydrodilatation in the identification of anatomical planes

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Background

To highlight the effective use of bladder hydrodilation with or without methylene blue dye to identify normal bladder anatomy and its dissection plane in cases of complicated endometriosis.

Methods

A four port laparoscopy with 10mm 0^0 scope, 5mm ports placed in the right and left iliac fossa with a 5/12mm port placed suprapubically. Initial 360^0 degree views obtained and anatomy defined. Pelvic assessment revealed extensive adhesions with the uterus adherent to the anterior abdominal wall. The normal anatomical planes between the bladder, uterus and bowel could not be clearly identified. Posteriorly, the pouch of douglas was obliterated with a large left endometrioma of approximately 8cm in diameter.

Clear identification of the bladder with dissection of the anterior peritoneal adhesions and retroperitoneal space was not possible. Three tubular structures suggestive of the two median obliterated umbilical arteries and urachus were seen. The urachus appeared to have a cystic structure attached to it inferiorly and adherent to the anterior uterine wall. Hydrodilation normal saline up to 300mls of the bladder was conducted to ascertain the bladder anatomy in relation to this. Following this, the bladder boundaries could be safely identified and dissected from the anterior uterine wall restoring the anatomy. Arterial bleeders were coagulated.

Results

Treatment of chronic pelvic pain secondary to severe endometriosis distorting pelvic anatomy. Clear identification of anatomical planes is required to achieve optimal surgical outcome. In this case the hydrodilatation of the bladder assisted in defining anatomical planes.

Conclusions

Routine practice in laparoscopic surgery would be bladder drainage prior to the commencement of surgery to reduce the risk of bladder injury. However, in this case we highlight the effective use of bladder distension to assist in defining anatomical margins and dissection eventually minimise the bladder injury.

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ES25-0501 - VP030
Video in Poster Session

Endometrioma of uterine scar: a rare clinical case

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Background

Endometriosis is defined as the extrauterine localization of ectopic functional endometrial glands and stroma. This pathology is seen in 8-15% of patient in reproductive age

Endometriomas are cystic masses caused by functioning endometrial glands outside the uterus. Although seen more often on ovaries, they can seldom involve uterine scar.

Diagnose is possible with imaging: ultrasound,and MRI(magnetic resonance imaging).Definitive diagnose can only be made histopathologically.

Radical treatment should be performed with complete surgical excision of the mass.

Methods

Laparoscopy technique has an essential role on excision of endometriomas of the uterine scar allowing ideal surgical conditions to perform a total excision of the mass with best visualization of the organs position and relationship.

Results

We report a 30 year-old-patient, with surgical past record of 2 caesarean in which last C-Section was complicated due to uterine rupture, that was referred to consultation due to a recent diagnose of a pelvic mass. Patient was asymptomatic with continuous progrestagen pill. Ultrasound revealed diffuse adenomyosis and an endometrioma in de uterine scar with 42X25 mm.

We explain step-by-step laparoscopic excision of the endometrioma of uterine scar with videos.

Conclusions

Endometrioma of the uterine scar is a rare form of endometriosis, with no available data that allow us to conclude over epidemiology, clinical and imaging workup. Further studies and case report publications are necessary in order to understand more deeply this form of endometriosis.

Minimally invasive approach is essential in the treatment of this condition

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ES25-0516 - VP031
Video in Poster Session

Complications after laparoscopy in multiple dermoid cysts: a case report

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Background

To describe a clinical case in which the laparoscopic approach of a benign pathology (dermoid cyst) produced a high morbidity for the patient.

Methods

The mature cystic teratomas or dermoid cysts are the most common benign ovarian tumors. Their incidence reach up to 5-25%, they could be bilateral in 10-15% of the cases. We describe a case of a patient with multiple bilateral dermoid cysts and the evolution after a conservative approach through laparoscopy.

Results

Woman 37 years old, G0, who came for the first time to a gynecology check due to abdominal pain. Using ultrasound we observed diffusely echogenic cysts with posterior sound attenuation in both ovaries. We perform a study of ovarian tumor extension that began with Doppler ultrasound, finding multiple masses with low-level echogenic tracts with solid-cystic areas in both ovaries. The MRI scan revealed three masses in left ovary around of 62x54mm and other three in right ovary, most of around 78mm. The tumor markers were negative. To preserve healthy ovarian tissue, we perform a multiple laparoscopic cystectomy in both ovaries. During the procedure we found that the cysts had thin capsule and very liquid fat content, despite this difficulty we decided to continue with the laparoscopic approach, removing five dermoid cysts in the right ovary and three on the left ovary; but some of the cysts were ruptured shedding their content, mainly fat and hair, into the peritoneal cavity. We performed a profuse washing of the cavity. The patient presented ileus and was under observation in hospital thee days, without other clinical or analytical manifestation. Four days after being discharged the patient returned with abdominal pain and ileus. She was hospitalized and started antibiotic treatment with suspected a tubo-ovarian abscess. Due to the marginal improvement after few days of antibiotic treatment, laparoscopic reoperation was required. The second procedure evidenced an intense aseptic chemical peritonitis, which required profuse washing and loosed the adhered tissue. The patient was hospitalized for a week until full recovery. The pathological study of the cystectomy piece confirmed that the cysts were benign

Conclusions

The laparoscopic cystectomy of dermoid cysts can be a complex surgery that could lead to postoperative complications difficult to resolve. It reveals the necessity of an appropriate surgical approach to prevent such complications. For the described case, it is possible that the conversion to open surgery during the procedure would reduce the morbidity and hospital stay.

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ES25-0099 - VP032
Video in Poster Session

Uterine extracervical myomectomy by vaginal route with prior temporary UAE

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Background

Myoma of the uterine cervix is rare, accounting for about 5% of all myomas. Compared with myomas that occur in the uterine corpus, cervical myomas are closer to other organs such as the bladder, ureter, and rectum, and the approach needs to be modified because the organs that have to be considered differ depending on the location of the myoma.

Laparoscopic myomectomy have been advocated over traditional laparotomy for various benefits in case of uterine leiomyoma. With the advances in laparoscopic techniques, almost all uterine myomas in the uterine corpus can be treated using laparoscopic myomectomy. However, the treatment of cervical myoma by laparoscopic operation remains doubtfull and not always optimalwhich is why we are trying to investigate using minimaly-invasive vaginal route for that.

Methods

Patient 32 yo, nulliparous, BMI – 34. MRI is revealed an extracervical myoma 7x9 cm in left parametrial space. For reducing operative blood loss we used next steps such as temporary bilateral uterine artery embolization the day before surgery and injecting into the myoma vasoconstrictor's solution (diluted adrenaline) during procedure. Patient was undergone surgery by vaginal approach applying vaginal set, ultrasound scissors and bipolar forceps.

Results

The time of surgery 76 min, the blood loss 120 ml. The patient recovered uneventually and was discharged on fifth day.

Conclusions

Further evaluation of this as a treatment modality is needed before it can be adopted into routine clinical practice.

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