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FREE COMMUNICATIONS

TOPIC 1: ENDOMETRIOSIS

FC-01

Indications for bowel resections in patients with rectovaginal endometriosis

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Introduction: Adequate treatment of severe deep endometriosis requires complete excision of all implants, but formal bowel resection is not generally recommended. The purpose of this study was to describe our experience with planned complete laparoscopic management of deep pelvic endometriosis with bowel involvement.
Material & Methods: In between January 2002 and December 2005 274 patients with clinical diagnosis of endometriosis required a laparoscopic surgery. 53 of them showed intraoperatively endometriosis of the septum rectovaginale, partially with bowel involvement. Laparoscopic excision of all visible disease was planned. All surgical specimens were histologically evaluated.
Results: 53 patients presented endometriosis within the septum rectovaginale. 29 patients required a bowel resection for complete excision of the disease. Endometriosis involved histologically serosa and muscularis propria in all 29 patients.
Conclusions: Though technically demanding, complete radical laparoscopic excision of endometriotic implants can be accomplished with preservation of the reproductive organs and appropriate use of bowel resection in the majority of patients. Such extensive surgery appears justified by the extent of the lesions and long-term relief of symptoms achieved. The surgeon who plans to perform laparoscopic excision of deep pelvic endometriosis should have the ability or access to expertise for laparoscopic partial or segmental bowel resection or plan to convert to laparotomy when faced with this location.

FC-02

A randomised controlled trial to assess the efficacy of laparoscopic uterosacral nerve ablation (LUNA) in the Treatment of Chronic Pelvic Pain

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Introduction: Chronic pelvic pain is a common condition with a major impact on health-related quality of life, work productivity and health care utilisation, where only 20–25% patients respond to conservative management. When such treatment fails, a diagnostic laparoscopy is performed. Interruption of these nerve trunks by LUNA may alleviate pain, although the evidence for its efficacy is weak.
Methods
Women with chronic pelvic pain of >6 months duration and no or minimal pathology were randomised at diagnostic laparoscopy to LUNA or no LUNA. Participants were asked to rate their dysmenorrhea, dysparaunia or non-cyclical pain on a 10 point visual analogue scale (VAS). The trial was powered to detect a difference of 1.2 VAS points. Secondary outcomes were EuroQol 5D-EQ, Sexual Activity Questionnaire, use of healthcare resources and further interventions. Analysis was by intention-to treat using multi-level modelling.
Results
The trial closed in December 2005 with 487 women randomised from 18 UK centres. Follow-up was 80% at 12 months. Analysis of data available to date shows no significance difference between the LUNA and no LUNA for any of the types of pain: unstratified treatment effect for dysmenorrhea −0.03 VAS points (s.e.=0.22), p=0.9; for dyspareunia −0.11 (0.23), p=0.6; for non-cyclical pain −0.34 (0.21), p=0.1. All pain improved from baseline to 3 months in both groups but remained static thereafter. There were no significant differences in quality of life or sexual activity between groups. Nor were there any differences between women <35 years or ≥35 years or between those reporting central or peripheral pain. There was no significant morbidity.
Conclusion
LUNA is an ineffective treatment for chronic pelvic pain associated with no or minimal pathology and its use should be discontinued.

FC-03

Combined recto-vaginal imaging evaluation of the rectosigmoid junction with water-contrast in the rectum: a new ultrasonographic approach in the preoperative assessment of intestinal endometriosis.

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Objective: to evaluate the contribution of a novel ultrasonographic approach in identification of those cases of intestinal endometriosis that are candidates to segmental bowel resection and to compare the diagnostic accuracy of this method with that of conventional imaging techniques used in the pre-operative work-up of deeply infiltrating endometriosis.
Patients and methods: nineteen patients with signs and symptoms of posterior deep infiltrating endometriosis were referred to our department at University Hospital of Verona and scheduled for

surgery. On admission, routine preoperative work-up for suspected bowel endometriosis included: i) transvaginal sonography (TVS), ii) transrectal sonography (TRS), iii) magnetic resonance imaging (MRI), and iv) barium enema. All women underwent an additional diagnostic procedure consisting of a transvaginal sonography with water-contrast in the rectum (RWC-TVS). After a sagittal scan of the uterine cervix was obtained with the standard transvaginal approach and the sonographer focused on the relations with the adjacent rectal walls, a flexible 25 Charrièr diameter catheter (PharmaPlast® Redditch, Worcs, United Kingdom) with a rubber balloon placed over the tip was simultaneously inserted into the rectal lumen up to a 20 cm distance from the anus. Saline solution was then instilled inside the balloon under ultrasonographic control. Individual operators performing sonography, MRI, and barium enema were blinded with respect to the other diagnostic findings. Patients were considered candidates to segmental bowel resection both on the basis of the usual radiological work-up and in the presence of a ≥50% lumen stenosis on preoperative RWC-TVS. Subsequently, all women underwent surgical treatment and laparoscopy was attempted as first-line surgical approach in all cases. After surgery, findings at different preoperative investigations were compared with the results of surgical exploration and histological examination. A subjective score of 0 to 3 was assigned to each diagnostic technique according to the accuracy in predicting different variables characterizing the lesion.

Results: In 11 out of 19 patients surgery included bowel resection that was completed laparoscopically in 9 cases. In all patients the need for segmental bowel resection had been anticipated both on the basis of RWC-TVS and according to the conventional work-up including barium enema. The remaining 8 women without deep rectal involvement had a laparoscopic excision of the recto-vaginal nodule. Table I shows the diagnostic accuracy of the different techniques used in the preoperative assessment of deep posterior pelvic endometriosis.

Table I. Accuracy scores of the different diagnostic investigations in the preoperative assessment of rectosigmoid endometriosis

	Lesion presence	Lesion size	Degree of bowel infiltration	Lumen stenosis	Diagnosis of associated localizations
Barium enema	2	1	0	3	0
MRI	3	3	2	0	3
TV sonography	3	3	2	0	3
TR sonography	3	3	2	0	3
RWC-TVS	3	3	3	3	3

0=absent 1=low 2=moderate 3=high

Discussion: RWC-TVS seems to offer the following potential advantages over the imaging techniques previously proposed to assess posterior deep infiltrating endometriosis: 1) a more precise visualization of the intestinal wall layers and their pathological distorsion; 2) an accurate assessment of the extension and distance from the anus of the endometriotic stricture, the proportion of the intestinal lumen narrowing, and consequently the need for segmental resection; 3) a longitudinal scanning view which is more familiar to the gynecologist than that of rectal endoscopic sonography; 4) information on the distensibility of the intestinal walls. RWC-TVS was the imaging technique that best predicted in a single procedure the need for segmental bowel resection, compared to transvaginal or transrectal ultrasonography alone, as well as to MRI. Our low-tech and low-cost method makes it possible to avoid the more expensive MRI as well as the barium enema unless an upper level stenosis is suspected.

FC-04

A comparative study of fertility outcomes in two surgical groups; laparoscopic colorectal resection vs. discoid/ superficial excision for intestinal endometriosis

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Study objective: To compare the characteristics and fertility outcomes of two groups of patients with intestinal endometriosis, one undergoing laparoscopic segmental colorectal resection in colorectal surgery unit and the second undergoing discoid /superficial excision by gynaecologic surgical team.

Key words: intestinal endometriosis, fertility, laparoscopy.

Design: A retrospective evaluation of patients who underwent laparoscopic surgery for bowel endometriosis between January 2002 to January 2006. Data included: age, body mass index, fertility, dysmenorrhoea, dyspareunia, bloody rectal discharge, operative data, hospital stay, complications. M.R.I studies verified the diagnosis and evaluated the degree of intestinal invasion. Follow up was done at 6 weeks, 6 months and one year and included detailed interview and physical examination.

Setting: University hospitals, Strasbourg, France.

Patients: In total there were 70 patients divided into two groups. group one comprising 51 patients were operated on by gynaecologic surgery team and second group of 19 patients operated on by the colo-rectal surgical team. Only those patients desiring pregnancy were analyzed; 25 in group I and 11 in group II.

Intervention: All patients underwent laparoscopic surgery under general anaesthesia. Group I had adhesiolysis and complete excision of all visible lesions either by superficial or discoid excision. The colo-rectal surgery team performed laparoscopic segmental resection of the affected recto-sigmoid colon. There were no conversions to laparotomy.

Measurements and main results: The mean follow up time for group I was 14 months and 20 months for group II. No statistically significant differences were found between the two groups regarding their demographic characteristics, symptomatology profile or surgical history. In the gynaecologic group there were 5 pregnancies (20%), all spontaneous, intrauterine and occurring during the first year post operatively. In the colorectal group we had 6 pregnancies (55%), ($P<0.05$). Of these, five were spontaneous; 3 intrauterine normally progressing, 1 ectopic, 1 first trimester miscarriage and one IVF intrauterine pregnancy.

Conclusion: This study comparing two surgical strategies for intestinal endometriosis shows a lower pregnancy rate for superficial / discoid local excision and colorectal segmental resection for a comparable groups of patients.

FC-05

Laparoscopic excision of posterior vaginal fornix in the treatment of patients with deep endometriosis without rectum involvement. Surgical treatment and long-term follow-up

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Background: To evaluate the short and long term efficacy of complete laparoscopic excision of deep endometriosis, without rectum involvement, with the opening and partial excision of the posterior vaginal fornix.
Methods: Thirty-one patients were included in the study with symptomatic extensive disease including involvement of the cul-de-sac, rectovaginal space and posterior vaginal fornix without rectum involvement. Endoscopic surgery was performed with complete separation of rectovaginal space and in block resection of the diseased tissue, opening and partial excision of the posterior vaginal fornix and vaginal closure either by laparoscopic or vaginal route. Patients fulfilled a pain questionnaire before and 12, 24, 36, 48 and 60 months after surgical treatment.
Results: No intra-operative complications were observed, 65% were free of analgesic on postoperative day 2; 38% had total remission of chronic pain and 22% were improved; 38% had total remission of dysmenorrhoea and 22% were improved; 45% had total remission of dyspareunia and 25% were improved. Follow up improvement of symptoms was statistically significant and was maintained for five years without recurrence of the disease or repeated surgery ($p<0.001$).
Conclusion: Complete surgical resection of deep infiltrative endometriosis with excision of the adjacent tissue of the posterior vaginal fornix improves quality of life with persistence of results for long time in patients not responsive to medical treatment.

FC-06

The response to radical laparoscopic excision in the treatment of chronic pelvic pain

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An observational study was undertaken of 108 women with chronic pelvic pain who attended a specialist pelvic pain clinic attracting both secondary and tertiary referrals. All women were asked to complete a pain questionnaire prior to attending the clinic in which they were asked to rate their pain on a five point ordinal scale and also complete a Quality of Life and Depression questionnaire.
The women subsequently underwent a therapeutic laparoscopy at which the depth and extent of any endometriosis was measured and treatment carried out by means of excision biopsy of all identified lesions of endometriosis. The women were then asked to complete a further questionnaire eighteen months postoperatively.
40 women had a complete pelvic clearance and were not considered and of the remaining 74 women 44 (59% of the target group of 74 cases) had completed datasets both pre, intra and postoperatively and a further two women had no identifiable pelvic pathology. The preoperative pain questionnaires showed that the women in this study reported a significant amount of pain, the severity of which was unrelated to the ARSM score (mean score 18.6, P=0.56). Women with superficial disease showed no statistical improvement in their pain scores but a significant degree of improvement occurred in women who had undergone resection of their nodular endometriotic disease (56% of the group), with a reduction in global pain scores (P=0.025).

There is a significant level of depressive morbidity in this group of women which improved after treatment.
A major finding of this study is the apparent failure of surgical treatment to have a sustained reduction in global pain scores in women with superficial disease in contrast to that reported by Abbott and colleagues(1) and the randomised controlled study by Wright et al (2;3). The r-ASM was a poor predictor of patient management in terms of symptoms and prognosis and the detailed findings of the study will be presented. There is little evidence to suggest that superficial disease will respond to surgical excision.

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(2) Wright J, Lotfallah H, Jones K, Lovell D. A randomized trial of excision versus ablation for mild endometriosis. Fertility and Sterility {FERTIL STERIL} 2005; 83(6):1830–1836.
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FC-07

Laparoscopic in-block resection of deep infiltrating endometriosis vs. Incomplete surgical treatment with or without medical therapy. Long term follow up on pain control and quality of life

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Study Objective: To evaluate the efficacy, in terms of pain control, of laparoscopic in-block resection of retrocervical and/or rectovaginal endometriosis compared to incomplete surgical treatment followed by GnRH analogue (GnRHa) or no medical therapy.
Design: Randomized, controlled study
Setting: Teaching hospital.
Patients: Seventy five patients with deep infiltrating endometriosis of the cul-de-sac and of the rectovaginal septum with pelvic pain.

Interventions: Laparoscopy was performed with complete separation of rectovaginal space and in-block resection of the diseased tissue in 25 patients without post-surgical medical treatment. Fifty patients underwent laparoscopic adhesiolysis of adnexae and/or uterus and eventual excision of endometriomas. In these patients deep infiltrating endometriosis nodules were only partially removed for refusal of patient consent to in-block resection as a potentially harmful surgical procedure. After surgery, these 50 patients were randomly assigned to GnRHa (n=25) or no therapy (n=25) groups for 6 months.
Measurements and Main Results: Patients filled in a pain questionnaire before and 3, 6 and 12 months after surgical treatment. Quality of life was determined according to SF-36 questionnaire before and 1 year after surgery.
Results: At 3 and 6 months follow up patients treated with in-block resection of deep endometriosis showed the highest reduction of cumulative pain scores for chronic pelvic pain, dysmenorrhea and dyspareunia. However, pain control did not differ significantly when these patients were compared with the 25 patients undergoing incomplete surgery and post-surgical GnRHa treatment. Indeed, both groups obtained significantly lower pain scores than those achieved by the 25 patients undergoing incomplete surgical treatment and no post-surgical therapy. After interruption of GnRHa and restoration of menstrual cycles pain scores returned to pre-surgical levels in patients undergoing incomplete surgery and post-surgical medical treatment. At 1 year follow up patients treated with in-block resection showed the lowest pain scores and the highest quality of life among the three groups.
Conclusion: Complete surgical excision of deep endometriosis improves the quality of life with a long-lasting outcome. GnRHa administration is followed by a temporary improvement of pain in patients with incomplete surgical treatment although following discontinuation of treatment symptoms tend to recur.

FC-08

Symptomatic bladder infiltrating endometriosis. Diagnosis, laparoscopic treatment and follow up

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Study Objective: The aim of this study was to determine the symptoms, diagnosis, laparoscopic treatment and post-surgical follow up of bladder infiltrating endometriosis.
Design: Retrospective study
Setting: Teaching hospital.
Patients: Ten patients with deep infiltrating endometriosis of the bladder.
Interventions: Evaluation of symptoms, specificity and sensitivity of imaging techniques and feasibility of laparoscopic treatment. Laparoscopy was performed with complete in block resection of the diseased tissue with opening and suture of the bladder. Pathologic review of the endometriotic bladder nodules was reviewed.
Measurements and Main Results: Patients filled in a symptom questionnaire before and 3, 6 and 12 months after surgical treatment. Ultrasound and MRI reports were compared to surgical and cystoscopic data. Quality of life was determined according to SF-36 questionnaire before and 1 year after surgery.
Results and Conclusions: Transvaginal ultrasound showed an high specificity and sensitivity in the diagnosis of bladder endometriosis. The most frequent symptoms were pain, dysuria and haematuria in the menstrual period. It was possible to treat all lesions by performing a laparoscopic partial cystectomy. No intraoperative complications occurred. Deeply infiltrating endometriosis was confirmed on histologic evaluation in all cases. Urinary symptoms disappeared at 6 months follow up with improvement of quality of life scores that were maintained at 1 year follow up.
Conclusion: Complete laparoscopic excision of deep infiltrating endometriosis of the bladder is feasible and improves the quality of life with a long-lasting outcome.

FC-09

Laparoscopic laser treatment of Endometriosis-Associated pain

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Introduction: endometriosis and its management is a topical issue in contemporary practice. The Endometriosis All Party Parliamentary Group (EAPPG) survey published in March 2005 demonstrates that much more needs to be done to deal with the effects of this chronic illness. Laparoscopic surgery offers an effective form of treatment for this condition. The European Society for Human Reproduction and Embryology (ESHRE) recommend ablation of endometriotic lesions to reduce endometriosis-associated pain.There have been few appropriately conducted trials to evaluate the effectiveness of laser destruction of endometriosis in relieving pain symptoms, yet the techniques are increasingly being used.
Objective: to evaluate the effectiveness of laparoscopic laser treatment of endometriosis-associated pain within a District General Hospital Setting.
Method: a retrospective analysis of patients with minimal to moderate endometriosis treated with CO2 laser from September 2002 to August 2004 at a District General Hospital. At each follow up visit-decided based on patient's symptomatology - a subjective evaluation of painful symptoms, using a visual analogue score, was done. Data was extracted from case notes and exported to Microsoft Excel Spreadsheet programme. Analysis was done using this programme.
Results: a total of 24 patients were included in this study. Twenty one patients (87.5%) had laser treatment alone while 3 patients (12.5%) had a combination of laser and electrodiathermy. One (4.2%) patient had bladder perforation (which was repaired endoscopically at the procedure) complicating the laser and electrodiathermy combination. Four months following surgery, 14 (58.3%) had pain reduction or disappearance of their pain, 9(37.5%) had no change in painful symptoms while 1(4.2%) had a worsening of her painful symptoms. At second follow up 5–18 months after initial surgery 19 (79.2%) patients now had subjective improvement while five (20.8%) had no change.

At third follow up 6–38 months post-surgery, 2 (10.5%) of the 19 patients who had shown a subjective improvement claimed deterioration in symptoms and opted for an abdominal hysterectomy with bilateral salpingo-oophorectomy.
Improvement or disappearance of dysmenorrhea, dyspareunia and pelvic pain was documented in 10(55.6%), 9(56.3%), and 3(60%) cases respectively at 4–38 months following surgery. Overall 17 (70.8%) patients reported significant or complete resolution of symptoms at four to 38 months follow-up.
Conclusion: improvement or disappearance of pain following CO2 laser treatment of endometriosis continues 38 months after the surgery in about 71% of patients. The addition of electrodiathermy to the laser treatment seems to be associated with an increase in the risk of complications. The results suggest that laparoscopic laser treatment is effective in the management of endometriosis-associated pain. This treatment modality is a valuable one within secondary care settings where appropriate skills are available.

TOPIC 2: HYSTERECTOMY

FC-10

Objective Structured Assessment of Technical Skills (OSATS) to evaluate the competence of gynecologists in learning a laparoscopic hysterectomy

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Objective
Experience in new surgical techniques is usually measured by numbers (quantity) instead of competence (quality). A total laparoscopic hysterectomy (TLH) is an advanced laparoscopic technique and most complications occur during the learning curve. OSATS was introduced to evaluate the competence of gynecologists while learning a TLH from an experienced laparoscopist.
Design & Methods
A multi centre, prospective, feasibility study was started in January 2005. Each TLH is performed according to a standardized protocol. A visiting experienced laparoscopist assists and supervises the gynecologist while performing a TLH. Technical skills are assessed after each procedure using OSATS. A minimum score of four on each item (total of seven items) was considered a 'pass grade', evaluated at two independent procedures.
Results
Currently 11 gynecologists, in seven hospitals, participate in this study. Five gynecologists reached the pass grade according to two OSATS scores of at least 28 points. They have since performed a total of 14 TLH's without assistance of the visiting laparoscopist, without major complications.
Conclusions
The use of OSATS, to evaluate the competence of established gynecologists while implementing an advanced laparoscopic technique seems feasible. Instead of quantity control, OSATS can be used as a quality instrument to assess a surgeon's competence in the process of learning a new surgical technique.

FC-11

Laparoscopic subtotal hysterectomy: outcome of 400 consecutive cases

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Study Objective: To evaluate the short-term outcomes of 400 consecutive cases of laparoscopic subtotal hysterectomy.
Methods: Women who agreed to have laparoscopic subtotal hysterectomy for therapy-resistant menorrhagia from February 2003 through February 2006.
Results: Of 400 patients, 302 were operated on as day case procedures. Mean patient age was 44.6 years, median parity was 2, mean body mass index was 26.8, and mean duration of symptoms was 4 years. Clinically the uterus was enlarged in 285 patients, and preoperative ultrasound scanning suggested the presence of uterine myomas in 211 patients. In addition to hysterectomy 188 patients had concomitant pelvic surgery. The mean total operating time was 45.5 minutes, and mean estimated blood loss was 114 ml. The overall major complication rate was 2%; two patients required blood transfusion after surgery. There was one bowel injury and two bladder injuries. There were no unintended laparotomy, return to operating room, or anaesthetic complications. At follow-up, 98% were satisfied with surgery.
Discussion: Laparoscopic subtotal hysterectomy for treatment of therapy-resistant menorrhagia is safe, can be performed as day case procedure, and is associated with reduced operating time and high patient satisfaction

FC-12

The third hand of the laparoscopic surgeon

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Introduction: While either an assistant or a robotic camera arm holds the camera, leaving the surgeon with his two hands to do the necessary laparoscopic surgery, a very important third hand, the cervical or intrauterine manipulator has not been widely discussed. It has become widely accepted that a safe intrauterine manipulator facilitates improved gynaecological laparoscopic surgery as the third arm of the surgeon. Methods: This study compares seven commonly used uterine manipulators in various laparoscopic procedures for anteversion, retroversion, lateral movement, elevation and other special movements. It also compares the ability of the uterine manipulators in presentation of vaginal fornices, the ease of assembly, handling and maintenance of pneumoperitoneum. The Clermont-Ferrand model provides a 140° range of uterine movements and it allows the uterus to flex on itself, but it requires cervical dilatation prior to insertion and is difficult to assemble. The RUMI with the KOH colpotomizer has 140° range of uterine manipulation and delineates the vaginal fornices nicely, but has restricted elevation of the uterus and is difficult to assemble. The Hourcabie is easy to use and allows easy stapling of the uterine pedicles but is poor in maintaining pneumoperitoneum. The Endopath and Vcare are single

use manipulators and are useful only in LAVH or LASH procedures, as they cannot delineate the vaginal fornices. The HOHL and TLH-Dr. Mangeshikar manipulators provide 130° range and have good uterine elevation: hence useful for TLH and endometriosis procedures. Results: For the treatment of recto-vaginal endometriosis with adherent rectum and any kind of hysterectomy, an intrauterine manipulator together with a rectal probe are essential tools. The RUMI manipulator without cup, the HOHL manipulator without cup and the MANGESHIKAR manipulator without cup are good instruments for uterine movement. After pushing the bladder down, the cup is used to divide the cervix from the vagina. It facilitates the lateralisation of the ureters and gives easy access to open the vagina with electric current, ultrasound or other energy sources.

FC-13

Is the feasibility and safety of laparoscopic hysterectomy influenced by uterus weight?

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Objective: To assess the influence of uterus weight on Surgeon's ability to perform laparoscopic hysterectomy (LH) and on the complication rate of the intervention.
Methods: All consecutive women undergoing LH for benign diseases at our Department were prospectively included starting from January 2004. Removed uteri were freshly weighed before fixation and patients were divided into 3 groups according to uterus weight: <300 g (group 1); from 300 to 600 g (group 2) and >600 g. Intra - and post-operative data were analyzed. Statistical analysis was performed with Kruskal-Wallis test and post hoc analysis or Chi-square test as appropriate.
Results: A total of 52 patients in group 1, 37 in group 2 and 24 in group 3 were included. The 3 groups were similar with regard to patients age, BMI, parity and previous abdominal surgery. Mean uterus weight was 178.8±64.7 g in group 1, 399.6±90.8 g in group 2 and 881±265 g in group 3. Operative time was significantly different among groups: 75 (40–185) min, 100 (50–225) min and 140 (85–260) min ($p<0.0001$) in groups 1, 2 and 3 respectively. Also blood loss was higher for women with higher uterus weight: 75 (10–500) mL, 100 (10–1050) mL and 200 (10–800) mL ($p<0.0001$) in groups 1, 2 and 3 respectively. Conversions to laparotomy were 1 in group 1 (excessive blood loss) 2 in group 2 (both for adhesions) and 2 in group 2 (1 for adhesions and 1 for uterus size) ($p=0.42$). Neither urinary nor intestinal lesions occurred. There was 1 reoperation in group 1 (vaginal haemorrhage) and none in group 2 and 3 ($p=0.55$). Minor postoperative complications were: 1 (urinary tract infection), 1 (hyperpirexia) and 2 (hyperpirexia and urinary tract infection) in group 1, 2 and 3 respectively ($p=0.35$). Hospital stay was similar between groups: 2 (1–7) days in group 1, 2 (1–9) days in group 2 and 2 (1–8) days in group 3 ($p=0.74$).
Discussion: LH can be safely performed in patients with a uterus weighing more than 300 g, despite a slight increase in operative time and blood loss. Laparoscopy represents a feasible and safe approach to hysterectomy even in cases of extremely large uteri (≥600 g).

FC-14

Immediate urethral foley removal after hysterectomy: differences between laparoscopic and vaginal approach

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Objective: To assess the effects of immediate vescical Foley removal after laparoscopic hysterectomy (LH) versus vaginal hysterectomy (VH).
Methods: Starting from September 2004, all patients undergoing LH or VH for supposed benign pathology were included. Patients with uteri larger than 20 weeks of gestation or uterine prolapse were excluded. Data were prospectively collected. In case of LH, a Foley catheter was inserted preoperatively and removed at the end of surgery. For VH, the bladder was emptied immediately before and after surgery with an extemporary catheterization. Patients did not receive an indwelling catheterization post-operatively and we waited for spontaneous micturition. If it did not occur within 4 h after surgery, an estimation of the amount of bladder urine was performed sonografically and an intermittent catheterization for urinary retention was started if the estimated vescical filling was >200 mL. Statistical analysis was performed with Student's t test, Mann-Whitney u test or Fisher exact test as appropriate.
Results: A total of 141 women were included: 91 (64.5%) underwent LH and 50 (45.5%) VH. No statistical differences were found between LH and VH group in terms of demographic characteristics. Operative time, estimated blood loss and uterus weight were 85 (40–210) vs. 50 (35–90) min ($p<0.001$), 50 (10–400) vs. 100 (10–500) mL ($p=0.02$) and 250 (40–990) vs. 180 (40–650) g ($p=0.04$) in the LH vs. VH group respectively. There were 30 (21.3%) cases of urinary retention. VH patients had a significantly higher risk of retention in comparison with LH patients: 11 (12%) in the LH group and 19 (38%) in the VH ($p<0.001$). Duration of surgery, BMI, previous surgical procedures, need for morcellation and uterus weight were not associated with retention. There were 9 postoperative UTIs successfully treated with antibiotical therapy: 3 in the LH group and 6 in the VH group ($p=0.07$).
Discussion: Our data suggest that VH is associated with higher rate of post-operative urinary retention in comparison with LH when the vescical catheter is removed immediately after surgery.

FC-15

An efficient and safe procedure of laparoscopic supracervical hysterectomy with endocervical resection

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Introduction: We evaluated an original technique of Laparoscopic Supracervical Hysterectomy with Endocervical Resection (LSH with ER) in the framework of a private practice and a University Hospital. This method allows to leave intact the cervical tissue, the corresponding ligaments and the topography of the ureters. Methods: From May 1998 to Mai 2006, 145 patients underwent a LSH with ER

for benign pathologies. The average age was 49.7 years (range 33–69). The indications were failure of medical treatment for uterine bleeding, dysmenorrhoea, and enlarged uterus. In this study we evaluated peri- and postoperative complications. The surgical procedure included four steps: 1) a conventional laparoscopic procedure until the uterine pedicles section, 2) an endocervical resection by the vaginal route until the uterine cavity, using an electric morcellator, 3) a fast laparoscoscopic section of the isthmus and 4) a transcervical removal of the uterus using the morcellator device. Results: The average operating time was 117 min. (range 45–210 min.). Intraoperative blood loss was minimal, with an average of 37 ml (range 5–550 ml). The uterus weight was 221 gr (range 60–880 g.). The hospital stay was 56 hours (range 20–161 hours). We observed no major complications, no conversion to laparotomy, no blood transfusion and no reintervention was required. Only one case of postoperative occasional spotting during 32 days and one endocervical infection resolved by local treatment, were noted. Since 1998, no complications or sequelae were observed. Discussion and Conclusion: This original technique by Laparoscopic Supracervical Hysterectomy with Endocervical Resection is a safe minimally invasive surgery procedure, feasible in a private practice and in an University Hospital, with few complications and without any postoperative bleeding. It offers cosmetic small abdominal incisions, and most of all, respects the pelvic floor support.

FC-16

Total laparoscopic hysterectomy as the method of choice for hysterectomy in female-to-male Gender Dysphoric patients

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Introduction: Transsexualism is considered to be the most extreme form of gender identity disorder, and will most typically require sex reassignment surgery (SRS). Part of this SRS in female-to-male (FTM) transsexual patients consists of hysterectomy with bilateral ovarectomy. We present our extensive experience with the technique of total laparoscopic hysterectomy (TLH) in these patients.
Materials and methods: From April 2003 through September 2006 we performed 67 total laparoscopic hysterectomies in FTM-transsexual individuals. We use one subumbilical 12 mm port and two 5 mm ports lateral to the rectus muscles. The whole procedure is performed with one atraumatic grasping forceps and the Ultracision instrument (Olympus) for coagulation and cutting; in most patients we did not use a bipolar coagulating forceps nor a suction-irrigation canula.
Results: The average operating time for the TLH was 67 minutes (30–150). The estimated blood loss for the TLH averaged 97,2 ml (50–600). We encountered two minor peroperative complications, namely two bladder perforations. Both lesions were less than one centimeter and were laparoscopically repaired. The only postoperative complication was a hematoma of the vaginal dome, which was unrecognized during the first postoperative days and needed vaginal revision one week later.
Discussion: Since 1990 we surgically treated over 500 gender dysphoric patients, the last two years at an average of 60 a year. Between 1993 and 2003 we performed surgery on 105 MTF-patients who already had a mastectomy previously. Performing the second step of the SRS (abdominal hysterectomy, vaginectomy and phalloplasty) still resulted in an operation of more than 9 hours in average, a transfusion need of 28,5% and a major complication rate of 3,8%. Since 2003 we decided to perform TLH during the first step, along with the mastectomy. We encountered 1 major complication, giving a major complication rate of 1,5%. We conclude that TLH should be the method of choice for hysterectomy in MTF patients.

FC-17

Outcomes after total versus subtotal laparoscopic hysterectomy

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Objective: there's no study comparing laparoscopic hysterectomy (LH) and laparoscopic supracervical hysterectomy (LSH) efficacy to optimize excellent operation for woman with benign uterine lesion. It is uncertain whether LSH results in better bladder, bowel or sexual function than LH.
Design and methods: we conducted a perspective study of coorte comparing LH and LSH in 204 women referred for hysterectomy because of benign disease; most of the women were premenopausal. The outcomes were measures of bladder, bowel, sexual function and satisfaction grade at 12–36 months, submitting a telephonic questionnaire. Data were analysed with the use of SPSS software. Student's paired t-test was used for normally distributed data, and chi-square test was used for categorical data.
Results: in LSH group we observed a shorter hospital stay (1,9± 1,07 days vs 2,13±1,1 p=0,15), a significant quicker return to normal activities (5,4±2,1 days vs 6,3±3,16 p=0,01), a comparable return to work (13,8±4,6 days vs 13,44±4,65 p=0,7). At follow-up at 12–36 months nobody had cervical cancer, only 15,4% of this patients had cyclic vaginal bleeding and it wasn't found significant difference in urinary, intestinal or sexual function and satisfaction grade.
Conclusions: our data show neither total or subtotal laparoscopic hysterectomy adversely affects pelvic organ function. LSH consents quicker return to normal activity, requires regular Pap smears execution and can provide cyclic vaginal bleeding, it is a less demolishing operation and more respectful of the pelvic anatomy.

FC-18

The "big five": a comparative cost analysis between five hysterectomy techniques

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Study Objective: To prove the economic equality of Total Laparoscopic Hysterectomy in contrast to the belief that TLH is more costly than other hysterectomy techniques.
Design: A prospective analysis of consecutively performed laparoscopic hysterectomies and a retrospective analysis of conventional hysterectomies performed in South Africa in 2005.

Setting: Private patients who underwent hysterectomy by their respective gynaecologists in private clinics in South Africa.
Hysterectomy Procedures: The total event cost of five hysterectomy techniques were analysed, namely TAH, VH, LAVH, LSH and TLH.
Results: Total event costs of these hysterectomy procedures were obtained by adding several cost parameters: hospital stay, total theatre time and pharmaceutical items.
Conclusion: Promising figures for TLH were obtained in comparison to earlier publications suggesting TLH to be more expensive than the conventional hysterectomies. By being deliberately cost conscious and by abandoning reusable instruments as much as possible, the laparoscopic techniques proved to be more cost effective than the conventional techniques. Indeed a very controversial statement!

TOPIC 3: ONCOLOGY

FC-19

Comparison of laparoscopic-assisted vaginal hysterectomy and pelvic and/or paraortic lymphadenectomy with traditional laparotomy in patients with stage I and II endometrial cancer

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The objective of this prospective controlled study, to compare the outcomes of laparoscopic surgery with conventional abdominal surgery in patients with deemed clinical stage I and II endometrial cancer in preoperative studies. Postoperative complication rates, operation time, number of lymph nodes, Hemoglobin change, hospital stay, analgesic need and recurrence rates were compared. 56 women with surgical stage I or II endometrial carcinoma disease, were treated by laparoscopy between 2001–2006. 12 women diagnosed as stage IA with Grade I by frozen section. 44 women, treated by laparoscopic assisted vaginal hysterectomy and pelvic and/or para-aortic lymph node dissection, were enrolled in the comparative study. As a control group 56 women with the same disease and stages were selected. All operations were performed by the first author, and CO_2 laser is used in the laparoscopic operations. Operation time, number of lymph nodes, intraoperative, postoperative complication rates, hemoglobin changes, operation time, recurrence rates, were similar between two groups. The hospital stay significantly shorter, analgesic need was significantly lower in laparoscopy group.
We conclude that the Laparoscopic treatment in early stage endometrium cancer is safe, effective and alternate to laparotomy, and has benefits of quicker postoperative recovery, lower postpoperative analgesic need, and shorter hospital stay.
Keywords: endometrium carcinoma, laparotomy, laparoscopic surgery, lymphadenectomy

FC-20

Post-operative peritoneal dissemination after laparotomy and CO_2pneumoperitoneum: a syngenic mouse model with and without controlled respiratory support

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Introduction: The use of laparoscopy in oncologic surgery is highly controversial. Animal experiments suggested a higher risk of post-operative dissemination after laparoscopy. However, the findings obtained in immunodeficiency animal models without controlled respiratory support (CRS) are not generalizable to the human clinical setting. Therefore, we developed a syngenic "immunocompetent" mouse model of post-operative peritoneal dissemination. The objective of this study was to investigate the severity of peritoneal dissemination in this model with and without CRS.
Design & Methods: Adult, female C57BL6 mice were randomly divided into four groups of 16 animals each: anesthesia alone (control), CO_2 pneumoperitoneum at low (2 mmHg) or high (8 mmHg) intraperitoneal pressure (IPP) and laparotomy. Groups were further subdivided into those with or without CRS. CRS was enabled by videoendoscopic endotracheal intubation and mechanical ventilation. A rigid 2 mm endoscope was used to visualize the vocal cords with the image displayed on a monitor. Mice were ventilated with a tidal volume of 200 microL at 250 strokes (laparoscopy) or 220 strokes (laparotomy, control) per minute. Just before surgical procedures, syngenic mouse ovarian cancer cells (1×10^6 cells) were injected intraperitoneally. Two weeks later, a laparotomy was performed to evaluate peritoneal dissemination using a semiquantitative computerized analysis system. Comparisons were made using the one-way ANOVA, followed by the Fisher's procedure. Statistical significance was defined as $P<0.05$.
Results: Among the "Non-CRS" groups, the total number and the growth of peritoneal dissemination were significantly worse in the laparotomy group than in the other groups. However, marked heterogeneities within the same groups were detected. Among the "CRS" groups, the number of peritoneal dissemination was significantly worse in the laparotomy and the high IPP groups. No significant difference was detected between the low IPP and control groups. The tumor growth was significantly greater in the high IPP group than in the controls. There was no significant difference among the low IPP, laparotomy and control groups.
Conclusions: Observed marked heterogeneities within the same groups without CRS might partly explain why the previously published results are controversial. The use of a low IPP during laparoscopic surgery may be a key to minimize post-operative peritoneal dissemination.

FC-21

Laparoscopic Radical Hysterectomy for Early Uterine Cervix Carcinoma: 2-Years Experience

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Objective: to present the technique of laparoscopic radical hysterectomy and preliminary results from the treatment of patients with this method.
Methods: for a period of two years (2004–2005) 25 patients with invasive uterine cervix carcinoma in IB1 stage had laparoscopic radical hysterectomy with total pelvic lymph node dissection. The technique of the surgical intervention is described as it is accentuated on some key phases with a view to the prevention of intraoperative complications. Data were entered and processed with the statistical product SPSS 12.0.1. A descriptive analysis and analysis of variance are enclosed.
Results: the mean duration of the surgical intervention is 210 minutes (150–220 min), the mean blood loss −230 ml (60–750 ml). The days of hospitalization vary between 3 and 6 days (mean 4,5 days). One patient (4%) had bloodtransfusion in the early post-operative period. Other complications, described in literature, such as ureter lesion, cystotomy, vesico- or ureterovaginal fistula, are not registered. By the end of the two years period of follow-up all patients are alive, without local relapse and distant metastasis.
Conclusion: the presented surgical technique for early uterine cervix carcinoma treatment is well-tolerated by the patients. The average stay in hospital is short and the urinary bladder and the colon function is restored quickly. Prospective randomized studies are necessary for comparing laparoscopic and abdominal radical hysterectomy.

FC-22

Nerve sparing laparoscopic radical hysterectomy in patients with invasive cervical cancer. Evolution of our technique.

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Objetives: Comparative study of two endoscopoic techniques of radical hysterectomy for the treatment of stages I–II of cervical cancer.
Methods: 20 patients with stage IA (6), IB (10) and IIA (4) of invasive cervical cancer were treated in our department. A vaginal radical hysterectomy assisted by laparoscopy was performed in the first group of 7 patients (Group A) were treated by. 13 patients (Group B) were treated by a total laparoscopic radical hysterectomy. In the last 5 patients of this group a “nerve sparing” technique was used in order to preserve the sympathetic and parasympathetic innervation of the pelvis.
Results: Follow up was longer in A (31,3±4,8 vs 10,4± 5,2 months), as the total laparoscopic approach was a technical evolution of the combined procedure. The stages did not differ between groups. The BMI was higher in group A (33,9±0,5 vs 25,4±1,2). There was lower proportion of nulliparous patients in this group (0% vs 22,2%). No statistically differences were detected when considering operating time (261,4±23,6 vs 290,7±26,7 min), number of lymph nodes (10,6±1,8 vs 8,0±1,4) and mean Hb drop (3,2±0,4 vs 3,6±0,4 g/dl). A bladder perforation occurred in A that was resolved intraoperatively. An intraoperative hypercapnia occurred in this group that did not allow completing the sampling of the obturator nodes of one side. A vaginal vault haematoma was observed in A and a case of anuria due to renal failure occurred in B. One patient in this group with morbid obesity deceased due to massive pulmonary embolism, even if standard preventive antithrombitic measures were adopted. Two patients in A and one patient in B required blood transfusion. In five patients of A a “nerve sparing” technique was used, which allowed a shorter recovery of the rectal function (3,1 vs 8,7 days). There were two cases of recidive in B, that were found to be stage III in the pathological study.
Conclusions: A total laparoscopic approach for the invasive cervical cancer allows a better identification of the autonomic innervation, facilitates the radicality in the upper lateral parametrium and reduces the requirement of postoperative blood transfusion.

FC-23

Survival study of our experience in 3 surgical approaches for endometrium cancer.

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Objetive: To study survival rate of three diferent surgical approaches to endometrium cancer.
Design and Methods: A retrospective study over 137 patiens with endometrium cancer, operated between January 1996 and Dicember 2005. We classified in three different groups according to the surgical access: Vaginal (12 patients), Laparotomy (56 patiens) and Laparoscopy (69 patiens). We have studied different items such as epidemiological data, diagnosis procedures, type of surgical access, operating time, conversion rate, complications rate, hospital stay, transfusion rate, pathological findings, FIGO stage and survival rate. Statistical analysis was done using SPSS 12.O statistical package.
Results: Mean age was 64+0,9(36–88) years old, no estadistical significance was achieved among the three different groups. Mean IBM was 32,91+0,67 kg/m2 (21,51–53,30) being significantly higher p<0,001 for vaginal access. Typical endometrial risk factors were seen in 71,31% of the cases. Complementary diagnosis procedure consisted of: sonography in 99,18% (135 patients), endometrial byopsy 97,54%(133 patients), hysteroscopy in 59%(80 patients) and MR/TAC in 63,9% (86 patients).In the vaginal access the hysterectomy was either performed with or without anexectomy, in the laparoscopy group the lymphadenectomy was done in 98,14%, in the laparotomy access only in the 64,28%. The mean operating time was longer in the laparoscopy group, (p<0,002) LPS 168,03+ 4,57 (77–240) y LPM 137,83+5,63 (60–240). There were not estadistical diferences between intra and postoperative complications. The conversion rate was 9,3% and the most were due to anesthesical problems. The hospital stay was shorter for the vaginal 5,92+1,01(3–13) and laparoscopy group LPS 5,02+3,65(2–14), LPM 7,73+0,63(4–33). Hemoglobine loss was higher in laparotomy (p<0,001) VAG 2,96+0,71(0,7–8), LPS 2,61+1,66(0,4–5,8), LPM 3,07+0,21(0,8–7,8). FIGO stages were: I (110), II (16), III (10), IV (1). Mean follow up was 86(4–120) months. Kaplan-Meir survival evaluation showed no stadistical diferences among the three groups (p=0,025).
Discussions: Laparoscopy is a feasible approach to endometrium cancer staging and it does not modify survival rates. Vaginal access may be an alternative approach in selected cases.

FC-24

Endoscopically assisted techniques in the field of oncoplastic surgery with Latissimus-dorsi-flap

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Introduction: (Partial) volume substitution with autologous tissue from another anatomical area is an established option in breast conserving treatments. The technique of breast reconstruction with the LDF has been improved substantially during the past, e.g. incision lines in the bra line and larger flap volume resulting from the harvest of an extended fat pad. It provides the surgeon with a safe and consistently successful method for reconstruction and has been modified and also endoscopically further developed over the last few years.

The method is especially suitable for cases with an extensive resection volume, when defect coverage or – prevention are either impossible with mastopexy or reduction techniques, or are refused by the patient. We have used a modified instrumentarium for the endoscopically assisted procedure.

Technique results: As the LDF-site does not initially have a sufficiently preformed visceral cavity for a minimal invasive approach, the space must first be created and held open with a retractor.

In the case of endoscopic techniques to date, a spatula with a light source is usually used, which allows a restricted view due to relatively difficult handling and consequently a limitation in the volume lifted.

The retractor should be adapted to the optical work conditions in order to eliminate visual interferences. The instrumentation was further developed in cooperation with the company Karl Storz GmbH, Germany, and the retractor now has the following structure for improved and safer handling: use with a longer visualisation aid (optic) for connection to the module of the theatre monitor if wanted, the contact area with the tissue is wider and the distance between the spatula tip and the optic is smaller. A work lumen enables the surgeon to perform a more precise preparation in the cone of light.

Conclusion/Outlook: When evaluating patients for breast conserving surgery, one should consider using minimally invasive techniques as an alternative reconstructive option. Advantages of the modified instrumentation could be the endoscopic display of the area on the monitor, better visual control and a possible consecutive increase in the extensive muscle tissue mobilised without trauma.

The practicability of the above mentioned modifications are currently being evaluated at the University Hospital for Women in Tuebingen. The aim is to have the possibility of lifting the whole muscle volume and the fat pad endoscopically without increasing morbidity for the patient.

FC-25

Laparoscopic surgery of early-stage endometrial cancer - 5 years of experience

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Background: The laparoscopic approach in the surgical treatment of endometrial cancer has gained wide acceptance by gynaecologic surgeons.

Objective: To compare characteristics, per operative factors and postoperative outcome of patients who had undergone laparoscopic surgery versus patients undergone laparotomy.

Method: In the years 2000 to 2004 a total of 91 patients underwent laparoscopic surgery for early-stage endometrial carcinoma. Of a total 205 patients with histological endometrial adenocarcinoma and estimated as low- or medium-risk, 80 were operated laparoscopically while 125 underwent laparotomy. We compared these two groups retrospectively. Sampling of lymph-nodes from the pelvic area was performed in the medium-risk group unless morbidity made it unfeasible.

Results: The median age was higher in the laparotomy-group (69 y. vs. 61.5 y.). Weight and morbidity were also higher in the open group. Per operative blood-loss was equal. Although operating-time was longer for the laparoscopic procedure (122 min.) than for the laparotomy-procedure (84 min.), the laparoscopically operated patients were discharged from hospital after a median 3 days compared to 6 days after the open procedure. The number of lymph-nodes removed was comparable if not better in the laparoscopic group (9 vs.7). There was a distinct difference in surgery-related complications. Particularly there were only 5 cases (6%) of surgical wound complications after laparoscopy while we found 20 cases (16%) after laparotomy.

Conclusions: Laparoscopic surgery of early-stage endometrial cancer is as safe as the open procedure. Shorter hospital-stay compensates for the longer operating-time. Lower rate of complications and almost invisible scars make it an attractive procedure.

FC-26

Laparoscopic lymphadenectomy plus Schauta-Amreich versus Laparoscopic-assisted radical vaginal hysterectomy for cervical cancer

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Introduction: To compare Schauta-Amreich vs laparoscopic-assisted radical vaginal hysterectomy for cervical cancer.

Methods: Twenty-eight consecutive IB1 cervical carcinoma patients Group A, 8 cases from 01/2000 to 10/2002 laparoscopic lymphadenectomy plus Schauta-Amreich. Group B 20 cases from 10/2002 to 04/2006, a selfmodified technique of laparoscopic radical hysterec-

tomy consisted of identification and isolation of the ureters by vessel-loop prior to ureteral tunnel management for easier approach on vaginal route.
Results: Operating time was shorter in group B; 248±10 (160–360) vs 293±282–320 min (p<0.008) BMI was similar in both goups, A: 23,3±1,3 (20,7–27,2) vs B: 25,3± 1,4 (19,7–32,40). One intraoperative bladder injury was recorded in group B. Conversely, one patient sustained injury to the bladder and to the left ureter in group A. Repair was achieved at primary surgery and no case need to be converted into laparotomy. One major postoperative complications were seen in group A, a rectovaginal fistulae and a perineal abscess complicated with sepsis strongly related to related to Schuchardt´s incision. Blood transfusion was more frequent in group A (25%) vs group B (10%) (p<0.01) and haemoglobine loss were higher but not statistical significant in group A (2,93+0,7 (0,8–6,30) vs 2,12±0,25 (0,6–4,3). Hospital stay was longer in group A 6,50±1,5 (3–17) vs 4,45+0.3 (2–8) days (p<0.05). Pelvic nodes collected were group A 7±1,5 (2–13) vs group B 15,65±1,6 (5–28) Pelvic nodes were routinely send for froze section. In three cases this was informed as metastasic and a para-aortic lymphadenectomy was inmediatly performed. No false positive neither false negative for frozen section evaluation of the nodes.
Conclusion: Schuchardt´s incision is associated to increasing post-operative morbidity. Laparoscopic vessel-loop isolation of the ureters allows an easier vaginal management of the ureteral tunnel thus becoming into a safer and shorter procedure.

FC-27

Different modes of administration of Hexyl 5-aminolevulinate for laparoscopic fluorescence diagnosis of metastatic ovarian cancer in a rat model

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Introduction: Hexyl 5-aminolevulinate (He-ALA) is a precursor of Protoporphyrin IX (PpIX) which accumulation is predominant in tumoral tissue. When excited with blue light PpIX have a characteristic red fluorescence. Several studies have demonstrated photo detection of peritoneal ovarian metastases after intraperitoneal injection of He-ALA. Others administration modes seem easier in clinical use. Thus the study aims to compare intraperitoneal (IP), intravenous (IV) and oral administration of He-ALA.
Methods: Peritoneal carcinosis is induced in Fischer 344 rats by intraperitoneal injection of one million syngeneic ovarian cancer cells (NuTu-19). Twenty one days after induction, photosensitization is achieved by IP or IV or oral injection. Four hours later staging laparoscopy is performed in each group (IP, IV and oral), first using conventional white light and subsequently using blue light (380–440 nm) to excite PpIX-induced fluorescence (D-light, Karl Storz, Germany). Tissues are collected for histologic analysis. Number of nodules distinguishable in white or blue light is compared in each group. Fluorescence intensity of nodules or tumor free peritoneum is measured and fluorescent intensity ratio is compared in each group using image processing software (Sigma Scan Pro Ashburn, USA).
Results: After intraperitoneal injection number of micro metastases detected by the fluorescence blue mode is significantly higher than with standard white light: 20% of lesions can be detected additionally thanks to selective fluorescence. Tumor fluorescence intensity is higher (× 1.55) than normal peritoneum intensity. Intravenous and oral administration display similar results with significant tumoral fluorescence and micrométastases detection.
Conclusions: He-ALA fluorescence endoscopy is a sensitive, promising diagnostic procedure, daily used in urology. With an oral administration the procedure could be well tolerated and easily introduced in current gynaecologic practice.

FC-28

Laparoscopic hysterectomy in early stage endometrial cancer a multi centre, prospective, feasibility study

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Objective
In the Netherlands standard treatment of patients with early stage endometrial cancer (EC) is a total abdominal hysterectomy and bilateral salpingo-oophorectomy (TAH+ BSO) without lymphadenectomy. A multi centre, prospective pilot study was undertaken to evaluate the feasibility of a Total Laparoscopic Hysterectomy (TLH) in patients with early stage EC.
Design & Methods
Patients with a clinical stage I EC, grade 1 or 2, or with a benign indication for TAH, were included after informed consent. For the TLH a standardized operation protocol was used. An experienced visiting laparoscopist assisted. Case record forms for complications and operation related information were used. Quality of life (QOL) was assessed by patient questionnaires.
Results
Until now, 78 patients were included. The median age of the included patients was 49.5 years (range 34–83). The median body mass index was 27.8 (19–41), median operation time 2 hours (1:00–3:55) and median hospital stay 3 days (2–14). Major complications occurred in 5/78 patients (6.4%) and minor complications in 11/78 (14.1%) patients. QOL improved to 'normal' levels six months after operation.
Conclusions
TLH +/− BSO seems feasible and effective. A multi centre cost effectiveness RCT comparing TLH + BSO to TAH + BSO (without lymphadenectomy) in early stage EC is scheduled to start in January 2007. Rate of major complications will be the primary objective.

TOPIC 4: HYSTEROSCOPY

FC-29

Diagnostic accuracy of Morphologic Hysteroscopy on Malignant Polyps

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Objective: The objective of this study is to see the capacity of morphologic hysteroscopy to diagnosis malignant pathology on endometrial polyps excluding pathology in the normal ones.
Methods: Prospective cohort of 205 polyps seen at office. We make the diagnosis of adenocarcinoma suspicion on a polyp or normal polyp based exclusively on morphological criteria and we correlate it with histology.
Results: We have diagnosed 17 polyps with adenocarcinoma suspicion, in which have found in the definitive histology 6 adenocarcinomas, 2 atypical hyperplasia, 3 non atypical hyperplasia and 6 polyps. Sensibility of morphological hysteroscopy for the diagnosis of adenocarcinoma is 92,9% (95%CI 0,561–0,992), specificity is 94,3% (95% CI 0,901–0,967), NVP is 99,7% (95% CI 0,975–1), PPV is 36,1% (95% CI 0,183–0,588), LR+ is 16,149 (95% CI 8,885–29,353) and LR- is 0,076 (95% CI 0,005–1,096). There has not been any adenocarcinomas in the polyps diagnosed as normal.
Conclusion: The morphological hysteroscopy diagnosis seems to be very useful to exclude malignant pathology in endometrial polyps. Its NPV is almost 100% in our series. It is necessary a larger study to throw statistical signification.

FC-30

Randomised Controlled Trial Comparing Outpatient Versus Daycase Endometrial Polypectomy

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Introduction: Endometrial polyps are a cause of abnormal uterine bleeding and occur in 10% of pre and 20% of postmenopausal women. 1–2% of polyps contain endometrial carcinoma and as such should be removed. Endometrial polypectomy can be performed awake in the outpatient (OP) setting or under general anaesthetic (GA) in the daycase (DC) unit.
Methods: A randomised controlled trial comparing success rates, complications, patient tolerance, pain scores, analgesia requirement and recovery following OP versus DC endometrial polypectomy. 40 women with an endometrial polyp were recruited- 20 were allocated to OP polypectomy using versascope grasping forceps or versapoint. 20 were allocated to endometrial polypectomy under GA using a hysteroscopic monopolar resecting loop.
Results: All women underwent polypectomy bar one in the OP arm who had cervical stenosis. There were no other complications in either group. The mean intra-operative visual analogue style (0–100 mm) pain score for the OP cohort was 23.7 mm (1.0–62.0 mm). 58% of women in the OP cohort were pain free for the remainder of the day following polypectomy versus 28% in the DC cohort (p=0.09). The day after the procedure all women from the OP cohort described slight or no discomfort versus only 41% from the DC cohort (p=0.02). 21% of women in the OP cohort needed post-operative analgesia versus 53% in the DC cohort (p=0.04).
Women undergoing OP polypectomy had a significantly shorter mean time away from home (3.2 vs 7.4 hours p<0.0005) and return to pre-operative fitness (1.0 vs 3.2 days p=0.001) than those undergoing DC polypectomy. When given a choice 95% of women from the OP cohort and 82% of women from the DC cohort would prefer to undergo an OP polypectomy if they required polyp removal in the future.
Discussion: Endometrial polypectomy can be successfully performed in the OP setting with minimal intraoperative pain, a significantly shorter time away from home, faster recovery and is preferred by women when compared to DC polypectomy. Resources are required to undertake larger scale research and further develop an OP endometrial polypectomy service across Europe.

FC-31

Sonohysterography with adjustable pressure of infusion - as the optimization method of preoperative assessment of myomas that penetrated myometrium in qualification for hysteroscopic myomectomy

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Objectives: to present and assess the value of sonohysterography (SIS) with adjustable pressure of infusion in qualification to hysteroscopic myomectomy. Methods:263 women with submucous and intramural myomas meeting following ultrasonographic criteria: contact with uterine cavity, distance from perimetrium >5 mm, size <5 cm. Study group:128 women, in which qualification for operation of the myoma was performed by SIS with adjustable pressure of infusion from 90 till 150 mm Hg. Control group: 135 women, in which qualificatrion was performed by use conventional sonohysterography. Intervention: hysteroscopic myomactomy under control of transrectal intraoperative ultrasonography (TRUS), when the distance of myoma from perimetrium in sonohysterography >3 mm. Parameters of the assessment and results of the qualification in both groups in relation to preliminary qualification were compared by use of TV USG. In both group of women which had hysteroscopic myomectomy parameters characterizing the course of the procedures, complications, anatomical results were analyzed. Results: in study group SIS criterion of distance from perimetrium >3 mm was fulfilled in 94(73,4%) cases vs. in 102(75,5%) in control group. During hysteroscopic myomectomy in study group no significant intraoperative complications were stated, in control group 1 case of overload syndrome appeared. In control group in 6 cases the operation was discontinued because of direct risk of uterine wall perforation observed by use of TRUS because of lack of free margin of myometrium over myoma during resection. There were not such cases in study group. The total one-stage resection was performed in 87(92,5%) women in study group vs. 88(86,2%) in control group. Disscussion: the distance assessment of the myoma from perimetrium using TV USG in qualification of myomas that deep penetrate myomatrium may be not sufficient. Infusion of the liquid to uterine cavity may cause significant changes in location of myoma in relation to perimetrium and myomatrium. Adjustable pressure of infusion during SIS with values similar as used during operative hysteroscopy increases adequacy of the qualification in these cases.

FC-32

The Pipelle-H: "no touch" biopsy at "no touch" hysteroscopy. A randomized controlled trial

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Objective: Traditional outpatient hysteroscopy involves the use of a speculum, a tenaculum and a hysteroscope. The more recently developed "no touch" or vaginoscopic hysteroscopy does not require vaginal instrumentation, thus reducing patient discomfort. However, if an endometrial sample is required, the use of a speculum and tenaculum is still needed. We have adapted the Pipelle de Cornier in to the Pipelle-H (manufactured by Laboratoire C.C.D., 48, rue des Petites Ecuries, 75010 Paris, France) for use at "no touch" hysteroscopy. We set out to compare patient discomfort associated with the standard technique for out-patient hysteroscopy versus "no touch" hysteroscopy and "no touch" biopsy using the H Pipelle.
Design and methods: Women attending our Outpatient Hysteroscopy Clinic took part in this study. They were randomised to have their endometrial biopsy taken using either the ordinary Pipelle or the "no touch" technique with the Pipelle-H. The standard Pipelle is 23 cm long whereas the Pipelle-H has been lengthened to 52 cm. In the case of "no touch" biopsy, once the "no touch" hysteroscopy is finished, the optic is removed from the sheath and the Pipelle-H inserted and guided to the uterine fundus through the diagnostic sheath. The diagnostic sheath is withdrawn until it is outside the vagina and the endometrial biopsy is then taken with the usual technique. Patients were asked to complete questionnaires before and after the procedure assessing discomfort from the hysteroscopy and endometrial biopsy using a visual analogue scale. The adequacy of the biopsy specimen for histological examination was also noted.
Results: "No touch" biopsy with the Pipelle-H was less uncomfortable than when the standard technique was used with the ordinary Pipelle. There were no differences in the adequacy of the biopsy specimens. The study is on-going and our latest results will be presented.Conclusion: The simple idea of lengthening the standard Pipelle device makes it possible to perform hysteroscopy and endometrial biopsy with minimal instrumentation and reduced discomfort. A combination of "no touch" hysteroscopy and "no touch" biopsy seems ideal for office or outpatient hysteroscopy.

FC-33

Outpatient treatment of uterine Synechiae at the time of hysteroscopy: feasibility an acceptability to patients.

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Introduction: To determine the feasibility and acceptability to patients of outpatient hysteroscopic treatment of uterine synechiae.
Methods: Design :Monocentric retrospective study between May, 1994 and May, 2005.Setting: An outpatient hysteroscopic consultation in a teaching hospital. Patients: Data from 4334 outpatient hysteroscopies was analysed. After exclusion of postmenopausal and asymptomatic patients not desiring pregnancy, 178 cases were included in the study. Intervention: Diagnostic hysteroscopy and division of synechiae with a rigid and panoramic hysteroscope was performed. Measurements: The feasibility and the acceptability of the treatment of the synechiae were analysed with respect to type and size. Success was defined by the full removal of the synechiae. Tolerability was reported by the patient as good, acceptable or poor.
Results: The mean age of the patients was 34±6,3 years. Synechiae were fine in 33,7%, mucous in 30,3% and fibrous in 36%. They were small in 43,8%, moderate in 48,3% and extensive in 7,9%. They were single in 67,4% and multiple in 32,6%. Synechiae were completely removed in 116 patients (65%), partially removed in 35 patients (20%) and untreated in 27 patients (15%). 27% required an secondary operative hysteroscopy in the operative room. Fibrous synechiae were significantly more difficult to treat than mucous or the fine ones ($p<0.001$). The size of the lesion negatively affected the success of the treatment ($p<0.001$). The tolerability of treatment was correlated to the extent of the synechiae ($p<0.001$).
Conclusions: The treatment of the uterine synechiae performed by hysteroscopy in outpatient setting was effective and well tolerated. Factors limiting the success of the treatment were the size and the type of the synechiae. Patient tolerance and acceptability of this treatment was dependent on the size of the lesion.

FC-34

The outcome of hysteroscopic sterilisation (Essure®) in nulliparous women.

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The new hysteroscopic (EssureÆ) sterilisation appears to have advantages compared to the laparoscopic sterilisation: fewer complications, less failures, no scars and rapid recovery.
With a well defined patient management policy the procedures can be done without any anaesthesia on the OPD by use of the vaginal approach according Bettocchi. The question is whether parity affects the outcome. An analysis of this subgroup of the ongoing Dutch cohort studies showed that parity matters. The averaged age of multiparous women is 37 yrs compared to 39.2 yrs in nulliparous women. The procedure time is less in multiparous women, 9 min compared to 14 (SD 4.1; median 8, range 4-35) in nulliparous women. Pain score differs: 5.1 (SD 2.3; median 2; range 0-10) in nulliparous women whereas multiparous women suffer 2.5 (SD 2.5: median 2.0, range 0-8). Failure rate as the intention to treat in multiparty is 7.3% and in nulliparity 23.3%!! After exclusion of the women with the Asherman syndrome the figures are 5.3% in multiparity and 20.8% in nulliparity.
Some problems encountered are: cervical stenosis, tubal spasm and uterine contractions.
Counselling of women who ask for the Essure sterilisation has to include these figures in case she is a nulliparous woman. A prospective study which compares a group of women with spinal anaesthesia of IV sedation and a group of women without any anaesthesia on the OPD might be helpful to select those women who are suitable for this procedure on the OPD and who are not.

FC-35

Prevalence and clinical course of endometrial polyps in asymptomatic women

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Introduction:
Study Objective: To assess the prevalence of endometrial polyps in women aged 45–50 years and to evaluate the frequency of abnormal vaginal bleeding in women with incidentally diagnosed endometrial polyps. Furthermore, the eventual change in bleeding as well as polyp size during one year of observation will be recorded.
Methods:
Design: Prospective cohort study.
Patients: 1000 randomly selected women in the age 45–50 years were contacted and offered to be incuded in the study.
Gynecological examination, vaginal sonography and hydrosonography was performed, as well as endometrial biopsy (pipelle) in women with endometrial polyps.
Amount of bleeding (pbac) in women with endometrial polyps and controls were registrated.
Registration of change of size of endometrial polyps (volume) and amount of bleeding will be performed twelve months after inclusion.
Persistent endometrial polyps one year after inclusion will be removed by hysteroscopic resection.
Results:
Preliminary results: 311 out of 988 women (31%) responded. 271 out of 988 women (27%) agreed to be included in this study and by May 15th 2006, 246 women (91%) have been included. The prevalence of endometrial polyps so far in the study population is 11,4%.
Further data from inclusion of women into the study will be presented.
Conclusion:
A prospective study evaluating the prevalence and clinical course of endometrial polyps in asymptomatic women. Preliminary data from the time of inclusion in the study will be presented.

FC-36

Office hysteroscopy in infertile women: the role of instrument diameter, the distention medium and surgeon experience on patient discomfort

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Introduction: Diagnostic hysteroscopy is not widely used in the office setting because of the discomfort produced by the procedure, especially in nulliparous women.
Methods: prospective randomized controlled trial to assess the role of the instrument diameter (5.0 or 3.5 mm external sheath), the uterine distension medium (CO2 or saline) and the surgeon experience. One hundred and sixty women attending the infertile clinic, were randomly assigned to undergo conventional hysteroscopy (group 1, *n*=80) or mini-hysteroscopy (group 2, *n*=80), using CO2 or saline as distension medium and performed by surgeons with different experience. Patient discomfort were analyzed throughout the 10 mm visual analogue score (VAS).
Results: Procedure complication and patient satisfaction rate were also recorder. Less pain, complications and higher satisfaction rates were observed with mini-hysteroscopy independently of surgeon experience. In addiction, procedures using saline medium scored less pain, complications and better patient satisfaction respect to CO2 only when performed by inexperienced surgeons.
Discussion: Instrumental diameter and surgeon experience, more than the medium distension appear to be the main variables affecting the perception of discomfort during office hysteroscopy.

FC-37

Vaginoscopic versus conventional approaches to outpatient diagnostic hysteroscopy: a two-Center randomized prospective study.

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Introduction : To compare the tolerability and feasibility of the transvaginal and standard approaches in outpatient diagnostic hysteroscopy.
Methods : Randomized prospective trial in two centers comparing the transvaginal (n=200) and conventional (n=200) approaches during office hysteroscopy.The main outcome measure was tolerance of the examination, measured by a visual analogic scale (VAS) graded from 0 to 10. Secondary criteria†were ease of instrument passage through the cervix, investigation quality, and its duration. Data analysis used the $\chi 2$ or Fischer's test exact test for qualitative variable and the Mann-Whitney for qualitative variables.
Results: The VAS was rated at 1.49±1.96 for the vaginoscopic and 2.31±2.15 for the standard ($p<0.0001$) approaches.
The approaches did not differ significantly in investigation quality, procedure duration, or ease of cervical passage (although the latter was more often easy transvaginally).
Conclusions: The transvaginal approach is better tolerated than the conventional technique in outpatient diagnostic hysteroscopy and does not compromise the success or quality of the investigation or prolong its duration.

TOPIC 5: HYSTEROSCOPY

FC-38

Bipolar resection in submucous leiomyoma: efficacy and long term results

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Objective: Evaluate the results of hysteroscopic resection in submucous fibroids using bipolar energy.
Patients and methods: Retrospective study including 128 patients that underwent operative hysteroscopic resection of submucous fibroids in Outpatient Surgery. Criteria of inclusion were: abnormal uterine bleeding (n=82–64,1%), asymptomatic intrauterine abnormalities (n=43–33,6%) and infertility (n=3–2,3%). Evaluation was done by transvaginal ultrasound scan and sonohysterography. In cases of infertility, MRI was also performed. We considered the following parameters: persistence of symptoms, residual myoma, association with another uterine pathology, follow-up, long term outcome and pregnancy rate in infertile patients.
Results: Respecting long-term outcome, 81 patients (63,3%) became asymptomatic and without organic pathology. Six of them needed a second procedure. Ten patients (7,8%), respecting 2006, had no time to perform ultrasound evaluation and another 10 patients (7,8%) are lost in follow-up. Persistence of symptoms and normal ultrasound were found in 3 patients (2,3%) controlled with medical therapy; 8 patients (6,3%) presented residual myoma. In16 patients (12,5%) was found subserous and intramural fibroids or adenomyose. Of these, 13 (10,2%) underwent hysterectomy and 1 (0,8%) uterine artery embolization. The medium follow-up was 30 months (range 6–54 months). Intraoperative complications were rare.
Conclusion: Resection of submucous leiomyoma grade 0, 1 and 2 was successfully achieved in ambulatory surgery with a low rate of complications and residual myoma. Results depend on the correct selection of patients, myoma maping and surgical team skills.

FC-39

Efficacy of Thermachoice Endometrial Ablation for treatment of menorrhagia.

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Aims: To evaluate the efficacy of thermachoice endometrial ablation (TEA) in menorrhagia, by monitoring patient satisfaction following the procedure.
Methods: A retrospective study of 52 patients that underwent TEA in a district general hospital in the United Kingdom, between January and September 2004. Satisfaction and symptom improvement rates were recorded during the follow-up period.
Results: The total number of patients reviewed in the follow-up appointments were 45. The mean age of the participants was 43 years, and the most common indication for the procedure was menorrhagia (78%), followed by menometrorrhagia (16%), menorrhagia with dysmenorrhea (2%) and polymenorrhea (4%). An ultrasound scan was performed preoperatively in 16% , and a hysteroscopy and endometrial biopsy in 78% of the patients. Previous treatment failures included the Mirena IUS (36%), progestogens (18%) and tranexamic acid (18%). Twenty-eight percent of the patients did not have any form of medical treatment in the past, and a mare 9% of them had endometrial preparation with GnRH analogues (Prostap). Mean follow-up time was 3.7 months. Sixty-four percent of the women had significant alleviation of there menstrual pattern (4% completely amenorrheic), although the satisfaction rate was only 57%.
Conclusion: In our study TEA appears to be a relatively ineffective procedure for the treatment of menorrhagia as compared to other methods. A possible factor affecting its efficacy is the inconsistent endometrial preparation with GnRH preoperatively. Further evaluation with longer follow up is needed.

FC-40

Resection of endometrial polyps in the outpatient department using the mini resectoscope.

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Introduction: Outpatient Hysteroscopy Clinics have become well-established for the investigation of women with abnormal uterine bleeding. Although “See and Treat” clinics have been set up, the types of procedures generally offered are limited, and many patients with intrauterine pathology continue to be admitted as in-patients for hysteroscopic surgery.
Objective: The aim of our study was to investigate the feasibility of resecting small to medium sized endometrial polyps using a new 16 Fr mini-resectoscope (Storz, Tuttlingen, Germany) under local anaesthesia.
Patients and methods: 20 premenopausal patients were diagnosed with endometrial polyps following no-touch hysteroscopy. Of those, 19 subjects had presented with abnormal uterine bleeding and one patient with infertility.
After informed consent, we proceeded to resect the polyps in the Outpatient Hysteroscopy Clinic using the mini-resectoscope. The cervix was dilated to Hegar 6 if required. 16 patients were given intra-cervical local anaesthesia.
Results: Successful resection of the endometrial polyps was achieved in all cases. The total operating time, including cervical dilatation, was a matter of a few minutes. None of the patients reported unacceptable pain during the procedure, and only three patient required oral analgesia postoperatively. There were no complications and all the patients except one, left hospital within 30 minutes of their surgery.
Conclusions: Hysteroscopic polypectomy using the mini-resectoscope is fast and effective, and is suitable for out-patient treatment. The resectoscope is generally acknowledged to be the most efficient instrument for hysteroscopic surgery, and the development of the mini-resectoscope means that this type of surgery is now possible in an out-patient setting. We plan to extend the indications for outpatient resection to the excision of small type 0 or type I fibroids.

FC-41

Blind biopsies versus outpatient hysteroscopy in detecting benign intracavitary lesions with abnormal uterine bleeding

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Study Objective: To evaluate the accuracy of blind biopsies in detecting benign intracavitary lesions as causes of postmenopausal bleeding in comparison to diagnostic hysteroscopy.
Design: Prospective clinical study
Setting: University hospital.
Patients: 319 patients with postmenopausal uterine bleeding
Intervention: All patients underwent both blind biopsy (Novak curette) and subsequently diagnostic hysteroscopy. All patients with benign intracavitary lesions underwent operative hysteroscopy to enable the removal of polyps and intracavitary myomas or endometrial ablation if required. Histopathologic findings from endometrial specimens obtained after operative hysteroscopy were used as a reference standard to establish the prevalence of pathology.
Measurements and Main Results: Sensitivity, specificity and positive and negative predictive values of blind biopsies and hysteroscopy were assessed to distinguish benign intracavitary formations such as polyps, submucous myomas and endometrial hyperplasia in patients with AUB.
Results: Blind biopsy showed a sensitivity of 11% and a specificity of 93% in detecting endometrial polyps. A sensitivity of 13% and a specificity of 100% was displayed for submucous myomas; a sensitivity of 25% and a specificity of 92% for the diagnosis of hyperplasia. On the other hand, hysteroscopy demonstrated a sensitivity of 100% and a specificity of 97% in diagnosing endometrial polyps; sensitivity and specificity of 100% and 98% for submucous myomas. The worst result was obtained in the appraisal of hyperplasia, with values of 74% and 88%, respectively.
Conclusion: Blind biopsy displayed a remarkably low sensitivity in the diagnosis of benign intracavitary lesions. Hysteroscopy should be considered the gold standard in the assessment of AUB after menopause. The latter averts the occurrence of false negative results in blind biopsies by allowing direct visualization of the uterine cavity and the performing of targeted biopsies in case of doubt.

FC-42

Diagnosis and treatment of women with postmenopausal bleeding in an outpatient setting

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Objective: The different strategies in the evaluation of women with postmenopausal bleeding focus on diagnosis alone and more specifically on diagnosis of endometrial carcinoma. This study was set to describe a diagnosis and treatment protocol for women with postmenopausal bleeding with diagnosis and treatment of endometrial polyps in the same session.
Design and Methods: This study was set in a university-affiliated teaching hospital, with office hysteroscopy facilities. We included patients with postmenopausal bleeding. The work-up was started with measurement of endometrial thickness by tansvaginal sonography and in case of endometrial thickness >4 mm patients underwent office hysteroscopy in a see and treat fashion.
Results: A total of 240 patients with postmenopausal bleeding visited our outpatient department. After ultrasound 62 patients (26%) could be reassured (endometrium thickness less than 4 mm) and no follow-up appointment was made. Of the patients with endometrial thickness >4 mm 151 (63%) patients underwent outpatient hysteroscopy. During hysteroscopy in 59 (21%) patients an endometrial polyp and in 17 (7%) patients an endocervical polyp was diagnosed. Of the endometrial polyps 49 and all endocervical polyps were removed in the same session. So, 66 (28%) patients visiting the outpatient department were diagnosed and treated during hysteroscopy. This means that 43% of the hysteroscopies was performed in a see and treat fashion. In 16 patients (7%) an endometrial carcinoma was diagnosed.
Conclusion: Taking into account the high prevalence and therefore pre-test probability of endometrial polyps in case of postmenopausal bleeding and endometrial thickness >4 mm, hysteroscopy offers the possibility of diagnosis and treatment of a large group of patients. Future study should focus on patients' preferences regarding the diagnostic and therapeutic strategy with respect to benign disease. Furthermore a decision-analysis should be performed to evaluate which strategy is most effective in diagnosing and treating endometrial pathology.

FC-43

Clinical Value of Serum Biochemical Inspection on Hysteroscopic Electrosurgery

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Introduction To evaluate the clinical value of serum biochemical inspection on hysteroscopic electrosurgery to avoid the complication of transurethral resection of the prostate (TURP) syndrome, raise the safety of hysteroscopic electrosurgery. Methods There were 65 cases of hysteroscopic electrosurgery performed at May to Sept. 2005. 5% Dextrose was used for uterine irrigation. Serum biochemical inspection was inspected before and just finished surgery which value was analyzed prospectively. Results Serum potassium serum sodium concentrations decreased and blood sugar elevated after surgery compared with its level before surgery. Its difference was significantly ($P<0.05$). Changes of serum sodium concentrations, which linked with TURP syndrome consanguineously, correlated with the volume of uterine distension media, operating time, type of surgery and disrupted degree of uterine wall. Regressive analysis of variables shown that postoperative serum sodium concentrations correlated with the volume of uterine distension media negatively, the volume of uterine distension media correlated with operating time positively. Eight cases happened mild TURP syndrome when surgery finished. Among them 3 cases were performed TCRS, 2 cases were performed TCRM and 3 cases were performed. Normal saline infusion and diuretic management resulted in good outcome.

Conclusion Prolonged operating time and severe disruption of uterine wall is the main inducement of TURP syndrome. Serum biochemical inspection during surgery can discover and manage TURP syndrome timely to be avoid neurological sequelae from hyponatraemic encephalopathy.

FC-44

Role of outpatient hysteroscopy on management of post menopausal bleeding

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The prevalence of endometrial cancer is about 3–10% in women with Post menopausal bleeding (PMB) and a referral for investigation is considered mandatory. Investigation of PMB is done by out patient endometrial biopsy, Ultrasonography and increasingly by out patient hysteroscopy. With emergence of one stop clinics the indications for hysteroscopy are being extended.
Aim: to assess the investigative methods for PMB and there correlation with pathology and the indications for the use of
Methods: retrospective data of all patients undergoing out patient hysteroscopy for PMB in a district general hospital over a period of one year were reviewed. The patient's data regarding endometrial thickness, hysteroscopic findings and histology results were analysed.
Results: Total of 114 patients were included in the study 54 patients below 60 yrs and 49 above 60 yrs (Mean 59) The endometrial thickness was <3 mm in 43 patients and 3–5 mm in 38 pts and >5 mm in 22 pts. No significant pathology was noted in 54% on ultrasound and 86% of these had a normal histology. Polyps picked up on ultrasound had poor correlation (21%) with histology. suspicious endometrium had 100% positive correlation with histology. hysteroscopy had 100% correlation with normal and suspicious pathology. polypoidal endometrium has poor correlation with histology. There were 3 cancers in patient group of endometrial thickness of >5 mm 3/22 (13.7%) where as there were no cancers found in the <5 mm group.
Conclusion: The introduction of outpatient hysteroscopy clinics should not dilute the indications for the hysteroscopy. Hysteroscopy has a high specificity in patients with an endometrial thickness of more than 5 mm to detect endometrial cancer and in view of cost benefit analysis judicious use of investigations must be made.

FC-45

The results of endometrial ablation plus postoperative Gnrh agonists in 65 patients with menometrorrhagia after one to 3 years of follow-up

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Background: endometrial ablation has become an alternative in treating menometrorrhagia to eliminate risks and discomfort due to hysterectomy which is a major surgical procedure.
Objective : to evaluate the results of endometrial ablation with rollerball plus postoperative GnRh agonists in reducing menstrual bleeding in patients with menometrorrhagia who had not responded to medical treatments.
Design and Methods : 65 patients 30 years old to premenopausal age with uterine size of 5–10 cm who presented with menometrorrhagia, had not responded to medical therapy, did not desire future fertility, had normal pap smear and their pathology of endometrial curettage was not neoplasia or atypia underwent a diagnostic hysteroscopy, 3 minutes of sharp curettage, endometrial ablation with rollerball and two doses of GnRh agonists postoperation. The patients were then asked about the amount and duration of bleeding at 1 month, 6 months and yearly intervals after surgery.
Results: the follow-up time was one to 3 years. Of 65 patients 63 (96/9%) were satisfied (became amenorrheic, hypomenorrheic or eumenorrheic) and 2 of them did not respond to treatment which underwent hysterectomy.
Conclusion: endometrial ablation with rollerball seems to be an effective treatment in patients with menometrorrhagia.

FC-46

The Essure™ Hysteroscopic Sterilisation: initial experience in Sheffield, UK.

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Objectives:
To evaluate success rates, complications and acceptability of this new technique in our unit.
Setting:
The procedure was carried out in a dedicated outpatient hysteroscopy clinic in a teaching hospital in the UK.
Design and methods:
A prospective database is maintained for all Essure™ procedures. The data was analysed for success and complication rates. Patient satisfaction was assessed through a 48 hour telephone interview. Cases of failed cannulation and incorrect placement were scrutinised.
Results:
117 cases were performed between November 2002 and May 2006 by three clinicians. Since April 2004, 80 procedures have been performed with the modified devices. The overall bilateral successful insertion rate was 89%, 76% with the old devices and 95% with the modified devices. In our last 40 cases, we have not had any failures. Of the 13 patients who failed to have the microinsert placed bilaterally in their fallopian tubes, tubal blockage was confirmed in 8 cases when checked by HSG or dye test; 1 patient failed to attend tests; 2 patients declined tubal patency tests and opted for other contraception; 1 patient could not tolerate the procedure; 1 patient was too obese to allow access into the cavity. In one patient the device was passed vaginally. In two other patients, one of the devices migrated distally into the peritoneal cavity. In both cases, the device was easily identified at laparoscopy and removed. In two patients Thermachoice Endometrial ablation was performed after the

hysteroscopic sterilisation. Our patient satisfaction survey revealed high levels of patient satisfaction with the procedure with over 65% of patients reporting mild or no pain during the procedure.
Conclusion:
Essure™ hysteroscopic sterilisation is a simple procedure that, after appropriate training, can be performed by any gynaecologist with experience in outpatient hysteroscopy. Women requesting permanent contraception should now have the choice of this outpatient procedure. It avoids the risks of laparoscopic sterilisation and the 5 year results are promising. Our data indicates that the best figures seen around the world can be reproduced in the UK.

TOPIC 6: MISCELLANEOUS

FC-47

How difficult is to be trained in minimal access surgery in the UK?

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This poster illustrates the training path in the UK for minimal access surgery in gynaecology:It underlines the main training difficulties (RCOG system, validation, hands on experience, time and cost limitations).
It takes into consideration the contrast between high-level university-specialised units in comparison with peripheral units.
The poster summarises the actual situation of training in UK based on recent local literature and data.
Emphasises the crisis of the future consultant NHS jobs in UK, which will be in the majority for obstetrical services and very few for gynaecological exclusive practice.

FC-48

Peritoneal tissue oxygen tension during a carbon dioxide pneumoperitoneum in a mouse laparoscopic model with controlled respiratory support

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Objective: Animal experiments suggested that the laparoscopic peritoneal environment is hypoxic. Given that hypoxia has many adverse effects on biological systems, it is plausible that it may contribute to the formation of adhesions or to the growth of malignant cells. There is no study, however, that investigates the relationship between ventilation, intraperitoneal pressure (IPP) and the surgical peritoneal environment to the development of hypoxia. The objective of this study was to monitor the peritoneal tissue oxygen tension ($PitO_2$) under various surgical environments in our established mouse models.
Design & Methods: Protocol 1: Adult, female C57BL6 mice were randomly divided into four groups of 10 animals each: anesthesia alone, CO_2 pneumoperitoneum at low (2 mmHg) or high (8 mmHg) IPP and laparotomy. Groups were further subdivided into those with or without CRS. CRS was enabled by videoendoscopic endotracheal intubation and mechanical ventilation. A rigid 2 mm endoscope was used to visualize the vocal cords. Mice were ventilated with a tidal volume of 200 microL at 250 strokes (laparoscopy) or 220 strokes (laparotomy, control) per minute. Over the course of the 1 hour procedure, $PitO_2$ was continuously monitored using a polarographic oxygen electrode. All procedures were performed on a thermostatically regulated heating pad and a rectal temperature of 37°C was maintained. Arterial blood gas analysis was performed at the end of procedure. Protocol 2: C57BL6 mice with CRS were randomly divided into two groups. $PitO_2$ was continuously monitored during anesthesia alone, CO_2 or Air pneumoperitoneum at 2 mmHg and laparotomy within the same mice. Comparisons were made using the one-way ANOVA, followed by the Fisher's procedure. Statistical significance was defined as $P<0.05$.
Results: $PitO_2$ was significantly higher in the low IPP-CO_2 pneumoperitoneum group with CRS than in the other groups except the low IPP-CO_2 pneumoperitoneum group without CRS. $PitO_2$ during a CO_2 pneumoperitoneum at the low IPP (104.2±7.8 mmHg, mean ± SEM) were elevated approximately two fold over the levels during laparotomy (49.8±15.0 mmHg) in mice with CRS. This elevation was not seen with air insufflation.
Conclusions: This study provides a new insight on peri-operative peritoneal physiology.The use of a low IPP during laparoscopic surgery may, through minimization of hypoxia, reduce the incidence of complications such as post-operative adhesions formation and dissemination.

FC-49

Finland has not turned her back on laparoscopy

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Introduction: A special working group for gynaecological laparoscopy was founded in 1993 and its work continued as the Finnish Society of Gynaecological Surgery in 2000. This society has arranged annual meetings for gynaecological surgery and encouraged colleagues towards laparoscopic surgery. The object of this study was to evaluate the present day role of laparoscopy in gynaecological surgery in Finland.
Methods: This is a register based study using data from the Finnish Hospital Discharge and Care Register, which is maintained by the National Board of Health.
Results: In 2004, 52% of all abdominal gynaecological operations were performed laparoscopically. 91% of operations for tubal pregnancy, 88% of removal of ovarion cysts, 66% of salpingo-

ophorectomies, 24% of myomectomies (hysteroscopic procedures were excluded), 43% of tubal re-anatomosis after sterilisation were also performed laparoscopically, the rest by laparotomy. In the 1980's by comparison only 7% of hysterectomies were vaginal and 93% abdominal in our country. The first laparoscopic hysterectomy in Finland was performed 1992 and this new technique was quickly adopted among gynaecologists. In 1997 already 28% (n=2696) of hysterectomies were laparoscopic, 21% vaginal and 51% abdominal. Since then, also the other minimally invasive technique, namely vaginal surgery has become more and more popular. By 2004, 25% of hysterectomies were laparoscopic (n=2310), 36% abdominal (n=3356) and 39% vaginal (n=3569). In addition, 15% of vaginal vault prolapses were operated laparoscopically, 22% abdominally and 63% vaginally.
Discussion: The option of laparoscopic surgery in gynaecological operations is widely used in all levels of clinical practice in Finland.

FC-50

Laparoscopic accuracy of appendicopathy during laparoscopy in gynecolocical surgery

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Objective. Evaluation of the accuracy of laparoscopic diagnosis of appendix pathology during laparoscopic gynaecological surgery for chronic pelvic pain or other pelvic pathologies.
Methods. A retrospective review of 120 patients who underwent appendectomy at laparoscopy for chronic pelvic pain or gynaecological pathologies in our Department of Obstetrics and Gynecology. Operative description and laparoscopic videos were compared to histological findings.
Results. 120 patients, ages 16–46 were studied. Pelvic pain was the principal indication for surgery (85%), 18 (15%) had other indication like infertility etc. Visual examination and operative description revealed an abnormal appendix in all cases. Histology was positive in 87 patients with chronic pain and in the totality of patients (18) without pain. There were no early or late complications. The pain improved or disapperared in 80% of patients, persisted in 18% and increased in 2% of cases at 1 year follow up.
Conclusion. Macroscopic examination of appendix during laparoscopy is highly effective in the identification of appendix pathology. Moreover, it is safe to perform a laparoscopic appendectomy when there is suspicious for its involvement in chronic pain.

FC-51

Simulating telementoring using NEST (network enhanced surgical training) in an endoscopic skills laboratory.

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Background: Training must never compromise patient safety or outcomes, and a way to achieve that is to promote supervised training. Unfortunately, modern surgical training is suffering from major reduction in terms of time and opportunities, therefore new strategies should be adopted.
One strategy to improve training and performance is with the use of telemedicine and telementoring. "Telemedicine" is defined as the remote practice of medicine, while "telementoring" is a telemedicine application involving the remote guidance of a treatment or a procedure where the caregiver has no or limited experience with the technique. Several authors have reported successful telementoring in various experimental surgical situations.
We have developed NEST (Network Enhanced Surgical Training), an affordable system that allows audio-visual interaction between a surgeon and a mentor who is not present in the operating theatre.
Methods: The basic setup for NEST consists of two standard PCs connected through an Ethernet cable. Video and audio interaction is controlled by two freeware software applications, UltraVNC and NetMeeting respectively. As the first part of our assessment, we are studying this system in an Endoscopy Skills Laboratory setting, were trainees are taught various essential laparoscopic and hysteroscopic skills (e.g. dissection, ovarian cystectomy, laparoscopic suturing, resection of tissue) on inert models. Interaction between trainee and trainer is through the NEST system to simulate a telementoring environment. We are assessing the need for physical presence of the mentor for completion of the tasks, time to complete task after telementoring compared with controls, and the attitude of trainee/mentor to telementoring (e.g. image and sound quality, image delay).
Results: The study is ongoing, and our preliminary results are encouraging in terms of video/audio quality, low image delay and mentor/trainee interaction. Detailed results of the study will be presented.
Conclusions: Our current system is affordable and easy way to test the potentials of telementoring. Moreover our basic setup allows us to perform studies on telementoring in a safe environment, a necessary step before its introduction on a larger scale. If such a system proves viable, it can be used in several situations apart from training (e.g. to provide an opinion and advice when not on site, to help surgical colleagues operating at a distant site, etc).

FC-52

Development of comprehensive laparoscopic and laparotomy mouse models with controlled respiratory support

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Objective: Continued advancement of the field of laparoscopic surgery depends on the use of adequate animal models. A serious limitation of many of the laparoscopy experiments performed in rodent models is the lack of attention paid to confounding factors including the type of anesthesia used, whether or not respiratory support was used, and what insufflation pressures were used. The objective of this study was to develop comprehensive laparoscopic and laparotomy mouse models to obtain results that are generalizable to the human clinical setting.

Design & Methods: Adult, female C57BL6 mice were randomly divided into four groups of 10 animals each: anesthesia alone (control), CO_2 pneumoperitoneum at low (2 mmHg) or high (8 mmHg) intraperitoneal pressure (IPP) and laparotomy. Groups were further subdivided into those with or without CRS. CRS was enabled by videoendoscopic endotracheal intubation and mechanical ventilation. A rigid 2 mm endoscope was used to visualize the vocal cords with the image displayed on a monitor. Mice were ventilated with a tidal volume of 200 microL at 250 strokes (laparoscopy) or 220 strokes (laparotomy, control) per minute. Sufentanil and vecuronium bromide (CRS groups) were injected subcutaneously. Anesthesia was maintained by 2% vaporized isoflurane with air. All procedures were performed on a thermostatically regulated, feedback-controlled heating pad and a rectal temperature of 37°C was maintained. Arterial blood gas analysis was performed at the end of the 1 hour procedure.
Results: Mice in the CO_2 pneumoperitoneum groups without CRS developed a hypercarbic acidosis, regardless of the IPP (pH: low IPP: 7.260±0.012, high IPP: 7.155± 0.027, $PaCO_2$: low IPP: 41.7±2.3; high IPP: 61.8±4.3, mean ± SEM). The $PaCO_2$ in these groups was considerably higher than the normal value of 25–35 mmHg in mice. In addition, mice in the high IPP-CO_2 pneumoperitoneum groups without CRS developed mild hypoxemia (PaO_2 :70.2±17.7 mmHg) and those with CRS were mildly acidemic (pH: 7.269±0.041), but not hypercarbic. Blood gas parameters for all of the other groups were within the normal range.
Concluisons: The method of videoendoscopic endotracheal intubation used in this study is easy to learn and simple to perform accurately. This study clearly demonstrates that both the use of an IPP in proportion to the animal's size and mechanical ventilation, are necessary in order to obtain near physiological conditions in the rodent that are comparable to the conditions in the human.

FC-53

Equipment malfunction: causes and consequences in endoscopic gynecological surgery

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Study Objectives: To study equipment-related malfunction in gynecological endoscopy, their causes and consequences. Design: 126 women were included in a monocentric prospective study. All women underwent endoscopic surgery between January and April 2006. Emergency surgical procedures and procedures where test equipment was used were excluded. Setting: Department of Gynecology Surgery, University Hospital. Patients: 126 women underwent endoscopic operations.
Interventions: Operations including 73 laparoscopies, 50 surgical hysteroscopies and 3 culdoscopies.
Measurements: 5 types of malfunctions were identified: imaging circuit, fluid and light circuit, electrical circuit, and surgical instrument issues. We examined whether they were related to faulty connexions between elements. Human factors, time spent rectifying the problem, as well as consequences for the patient were analysed.
Main Results: Malfunction occurred in 58 surgical procedures (34.1%). Laparoscopies were equally affected as hysteroscopies (35.6% vs 38.0%). 41.3% of malfunctions originated from assembling fluid and light systems, 20.7% from the electric circuits, 6.9% from imaging devices, 31% from surgical instruments. 46.6% of malfunctions originated from plugs, pipes or cables. In laparoscopy, bipolar forceps and its cable was the most common cause of malfunction (28.9%), whereas small equipment (connection devices and joints) are mostly involved in hysteroscopy. Half of the malfunctions (50%) involved staff (nurses 75,8%, surgeons 24,3%). Time wasted due to malfunction resolutions accounted for 6.6% of the duration of laparoscopic interventions, and 17.1% of hysteroscopic interventions. 19% of equipment malfunction could have had serious consequences to the patient. No morbidity and mortality were noted.
Conclusions: Equipment-related malfunction were frequent during endoscopic surgery. Laparoscopies and hysteroscopies were equally affected. The consequences of such malfunction were potentially serious. Identifying the causes enables the optimization of endoscopic surgery equipment during everyday use, with improved safety to the patient.

FC-54

Thermal Fusion-Understanding the role of key parameters

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Objective:
The complexity of electro-surgical vascular control and its suboptimal success call for safer and more intelligent coagulation systems. To develop such devices, more extensive knowledge of decisive parameters in thermal fusion must be gathered.
Methods and Design:
Porcine vessels of different calibres were coagulated ex vivo under defined conditions and the burst-pressure determined as parameter of the seal quality. The experimental setting aimed at subtracting current induced effects from the coagulation process so as to separately analyse the influence of pressure, heat conduction, length of coagulation and temperature on the thermal effect. Moreover, a new innovative intelligent pulsed coagulation mode was evaluated.
Results:
The type of bipolar forceps influences both the coagulations success and the occurrence of thermal damage: structured tips account for more charring and sticking but also greater burst strength. Bipolar vessel sealing induced more thermal damage in veins than it did in arteries.
Vessel sealing via thermal fusion without current but only with pressure and heat conduction only lead to few successful seals. An ideal amount of pressure between the forceps during coagulation

could be identified which is different in arteries and veins. The new intelligent coagulation mode reduced seal failures from 31.2% to 5% plus significantly improved seal quality.
Outlook:The underlying data emphasize that knowledge about thermal fusion with special regards to decisive factors such as temperature, pressure, length of coagulation must be included in electro-surgical approaches and that new intelligent coagulation systems may very well provide a safer and more reliable service in haemostasis.

FC-55

A €30 do-it-yourself laparoscopic training simulator

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Background: Achieving competence in operative laparoscopic techniques is a difficult and time consuming learning process due the indirect visualization of a 3-dimensional operating field in a 2-dimensional screen, coupled to the loss of degrees of freedom of movement due to the design of the instruments and the entry ports. Therefore, it is generally acknowledged that a surgeon has to practice using training simulators before applying advanced techniques such as laparoscopic suturing to real surgery.
Until now, laparoscopic training simulators have been expensive, requiring not only the training jig itself but a laparoscope, light source, light lead, etc. As a result, laparoscopic simulators are not widely available and generally restricted to formal teaching courses. We describe an inexpensive DIY trainer which is simple to assemble and cheap, and therefore easily accessible to everyone.
Objectives: 1) To describe the development of a cheap, small, light and easy to assemble laparoscopic training simulator which can be linked to a television or computer monitor, providing a realistic laparoscopic surgical environment. 2) To compare our training simulator to the standard commercial box simulator in a laparoscopic skills workshop setting.
Methods: Over the last year, the first author has designed and built three different versions of the trainer. Mark I can be connected to any TV screen using the Scart or A/V port, while Marks II and III can be linked to a personal computer using USB or Firewire cables. Illumination for all versions is provided by a low wattage energy saver bulb. Any laparoscopic instrument can be used with the trainers. The trainer is currently being tested during our laparoscopy workshops for the teaching of essential skills including hand-eye coordination, ovarian cystectomy and laparoscopic suturing. We are in the process of comparing our DIY trainer with a commercially available model.
Results: The trainers are not difficult to construct and are made of components which are widely available in hardware and DIY shops. As a result, the total cost can be as low as €30 for the TV version and €55 for the computer version, the price difference being explained by the greater expense of a good quality web cam for the PC-based trainer. A thorough description of the system, as well as detailed results of our comparative study will be presented.
Conclusion: Due to its low cost, our training simulator can be available to anyone, and could prove to be an invaluable learning tool for laparoscopic surgeons.

TOPIC 7: NEW MATERIALS

FC-56

Percutaneous Laparoscopically-Assisted and US-Guided Cryoablation of Uterine Fibroids

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Study Objective. A case study of Percutaneous Laparoscopically-Assisted and US-Guided Cryoablation of Uterine Fibroids.
Design. Percutaneous Laparoscopically-Assisted Cryomyolysis (PLC) was performed under laparoscopic visualization, with real-time transvaginal ultrasound guidance for precise insertion and placement of ultra-thin (17 gauge) cryogenic needles (CryoThera™, Galil Medical).
Setting. University tertiary referring centre in Oslo, Norway.Patient. The patient was a 45-year old woman. Generally healthy, but presenting with menorrhagia and bulk symptoms. The patient does not desire further childbearing.
Interventions. Preoperative TVUS showed three fibroids. CryoNeedles and thermal sensors were inserted percutaneously directly to the fibroid under laparoscopic visualization. US monitored the needle's path through the fibroid tissue and determined the tip placement. During the procedure, US monitored iceball propagation and coverage of the fibroid. Freeze cycles differed for each fibroid due to their size and location and ranged between 8–10 minutes for the first cycle and 3–4 minutes for the second cycle. Each freezing cycle was followed by 5 minutes of active and passive thaws. All 3 fibroids were ablated in a single procedure.
Measurements and Main Results. Fibroid size measurements during procedure via TVUS were 4.5 cm in diameter (volume of 47.7 cm^3), 3.6 cm (volume −24.4 cm^3), and 6.7 cm × 5.5 cm (volume −106.0 cm^3). No intraoperative or postoperative complications occurred. The patient was discharged from hospital the same day, did not report postoperative pain and returned to normal activity 3 days later. At 4-week follow-up, bulk symptoms disappeared and at 6-week follow-up, there was a reduction in bleeding and fibroid size.
Conclusions. Galil Medical's cryotherapy system provided an easy to use platform for minimally invasive, controlled ablation of uterine fibroids. Ultrasound imaging enabled control for needle placement and positioning, ice ball formation and the freezing process. The ultra-thin cryogenic needles were inserted percutaneuosly with minimal force and tissue-trauma.

FC-57

Randomised controlled trial comparing outpatient versus daycase Thermachoice III

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Introduction: Thermachoice III (TCIII) is a new endometrial ablation technique. It is made of silicone with a thin diameter and contains an impeller that circulates 5% dextrose within the balloon. TCIII provides a greater depth of necrosis and better ablative coverage at the extremes of the cavity than TCI. It is feasible that TCIII may also be performed in the outpatient (OP) setting; however it is important to determine whether these changes affect a woman's ability to tolerate the procedure without a general anaesthetic (GA).
Methods: A randomised controlled trial comparing success rates, complications, pain scores, analgesia requirement, nausea and vomiting rates and time spent in hospital following OP versus daycase (DC) TC III. 73 women recruited - 39 allocated to OP TCIII with pre-operative Ibuprofen +/− intra-operative Entonox (no local anaesthetic or IV sedation); 34 allocated to DC TCIII under standard GA with intra-operative Fentanyl and Diclofenac.
Results: 87% of women in the OP cohort completed full 8-minute treatment. The remaining 5 women requested the procedure be stopped due to pain. All women in the DC cohort completed treatment and there were no intra-operative complications in either group. The mean intra-operative VAS pain score for the OP cohort was 45 mm (0–100 mm) for every stage of treatment. The majority (64%) required no rescue analgesia. The overall mean pain score following TCIII was 59 mm for the OP group and 53 mm for the DC group (p=N/S). However women from both cohorts reported wide ranges of pain scores (0–100 mm). The presence of pre-operative significant dysmenorrhoea was statistically significantly correlated with higher overall pain scores in both groups. Significantly fewer women in the OP cohort experienced nausea (13% vs 65% in DC cohort $p<0.0005$), vomiting (0 vs 24% in DC cohort $p=0.006$) or required anti-emetics (0 vs 56% in DC group $p<0.0005$). Women undergoing OP TCIII had a significantly shorter mean time spent in hospital (1 hour 40 mins vs 8 hrs 12 mins in DC cohort $p>0.0005$).
Discussion: OP TCIII can be performed in the majority (87%) of women and is associated with similar overall mean pain scores to the DC procedure. However women undergoing OP TCIII experience significantly less nausea, vomiting, anti-emetic requirement and time in hospital.

FC-58

US guided Laparoscopically-Assisted Cryomyolysis. A multi center preliminary safety and efficacy results using Galil-Medical's 17-G Argon-Based Cryogenic Needles

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Objective. To evaluate the safety and efficacy of percutaneous laparoscopically assisted cryomyolysis (PLC) for the treatment of symptomatic uterine fibroids in women who completed childbearing, yet wish to preserve their uterus, using Galil-Medical's 17-gauge (1.47 mm) Argon-based cryogenic needles.
Design. 20 patients in three centers: Cleveland Clinic Florida, Mississippi University Medical Center, and Assaf Harofeh Medical Center (Israel) with severe symptomatic uterine fibroids were treated in a percutaneous laparoscopic-assisted approach using Galil-Medical's ultra-thin cryogenic needles, with TVUS guidance.
Procedures were performed according to a predetermined freezing and thawing protocol using real-time temperature and US monitoring. Cryoneedles were inserted percutaneuosly directly to the fibroid using US guidance. Thermal sensors provided continuous temperature monitoring of the tissue for efficacy and safety. Safety was evaluated by intra-operative and post-operative adverse events. Efficacy was measured by uterine fibroid volume reduction and by a validated fibroid related symptom severity questionnaire (SSS-UFS-QoL; Spies, 2002),.
Results. No adverse events occurred and all patients were discharged from hospital within 24 hours. Patients reported no significant post-treatment pain. Median fibroid volume reduction was 57.1% and 81.6% at 3 and 6 months, respectively. Median SSS-UFS-QoL score improvement is 43.8%, and 69.2 at 3 and 6-months, respectively. One patient underwent hysterectomy three months following the cryoablation procedure due to persistent menorrhagia and anemia.
Conclusion. Our preliminary data indicate that Percutaneous Laparoscopically-Assisted Cryomyolysis (PLC), using Galil-Medical's 17 gauge Argon-based cryogenic needles, is a safe and effective alternative for the management of symptomatic uterine fibroids in pre-menopausal women, who completed their family planning yet wish to preserve their uterus.

FC-59

The OR-1-System: modern communication, documentation and system integration in the OR

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The OR1 is a complex system containing hard- and software to manage the whole operation room including data management and communication outside the OR. It will be presented that the OR 1 provides

- a cable free Operation room (OR)
- Management facilities for all hardware equipment needed during an operation by the surgeon himself
- Data acquisition and storing system including foto- and videodocumentation
- Facilities for communication outside the OR (intercommunication)
- Facilities for training even abroad
- Facilites for scientific work

Thus providing a useful tool to

- Enhance work flow in the OR
- Shorten operation times
- Improve OR-effectiviness
- Facilitate the surgeon to keep in contact to the "outer space" outside his operation desk and the OR itself

- Facilitate to send live-streams online all over the world (congresses, training abroad)
- Facilitate state of the Art documentation by foto- and videodocumentation during the operation
- Facilitate to enhance documentation workflow acquired for legal and financial aspects
- Build up a large database accessible for scientific analysis

FC-60

Do patients want to see their surgery? A new tool for patient education.

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Objective: Communication is fundamental in medicine, especially nowadays when there has been a shift in the role of the patient from passive recipient to active consumer of health information. Unfortunately, it may be difficult to provi- de satisfactory information to patients, particularly when it comes to complicated endoscopic procedures or surgical procedures that are performed under gene-ral anesthesia. We have previously described an affordable, PC based system for the digital recording of surgical procedures, making such technology available to virtually to every physician. The latest advances in the field of digital recordings include the so-called portable media players, which are small devices capable of recording, storing and playing-back relatively large amounts of digital data (videos, pictures, etc.). We have investigated the use of such a device for the purposes of patient education regarding their surgery.
Design and methods: Every patient scheduled for surgery in our unit is routinely asked for permission to record their surgery on our PC system. Those who agreed were then offered the opportunity to go over an edited recording after their surgery, consisting of initial findings, parts of the surgery and the anatomy at the end, with one of the surgeons present in the operating theatre. We designed a questionnaire to assess the patients' attitude towards this kind of innovative doctor-patient interaction. We are currently using an Archos AV 500 mobile digital video recorder which is widely available in the E.U for under €600, has a 10 cm colour screen for recording and playback, and hard disk (30 GB or 100 GB) which can store up to 400 hours of MPEG-4 compressed video signal. As the device is compact (12.4 cm x 7.6 cm x 1.8 cm) for the 100 GB version), it can be carried inside a pocket during the ward rounds.
Results: The majority of patients wanted to see their surgery(65,7%) and found the information useful(91,3%). They were pleased they had the chance to view their surgery and did not find the images frightening (95%); indeed, the majority (52,2%) felt that the edited recordings, which averaged 2-3 minutes in duration, were too short. They expressed a preference for video images (95,7%) rather than stills, and many requested a copy of the recording for themselves (87%).
Conclusion: It could be argued that such recordings should form a standard part of post-operative ward rounds.

FC-61

Post operative evaluation of the Prolift® technique

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Objectives: The aim of this study was to evaluate morbidity, quality of life and sexual function after pelvic floor repair by vaginal route with the new technique, Prolift*.
Materials and methods: Fifty consecutive patients with symptomatic genital prolapse were enrolled. All of them did benefit from a vaginal repair of pelvic floor defect by the use of Prolift* technique with soft Prolene mesh. Sexual function was evaluated postoperatively using the validated short form PISQ-12 and impact on quality of life using the validated short forms PFID-20 and PFIQ-7. Questionnaires were mailed to the patients.
Results: A total of 46 (92%) women responded. The median follow-up was 14 +/− 4 months. Mean age was 60.1 years. 27 (54%) patients had associated anterior and median prolapse, 5 (10%) patients a posterior prolapse and 18 (36%) patients a complete genital prolapse. Scores had demonstrated that surgical treatment of genital prolapse improves the quality of life and sexual functions.
This study shows good results on post operatives time with the Prolift* mesh for prolapse repair while maintaining an efficient anatomical support. This new procedure is reproducible and good tolerance. A prospective study is currently being carried out, the results will be presented in the near future.

FC-62

Is a reversible hysteroscopic method of sterilization the nirvana for women?

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Introduction: Sterilization is now the method of family planning most commonly used in the world. The methods of sterilization vary, but the most common and effective method for sterilization has thus far been via a laparoscopic route. Approximately one million laparoscopic tubal sterilizations are being done annually in the United States, and larger numbers in developing countries.
Over the last 150 years, research has evolved in the search for the ideal method of female sterilization. The method should have high efficacy, be readily accessible, and be personally and culturally acceptable. It should be simple, quick, easily learned and be cost efficient. It should be able to be performed in an outpatient setting without general anaesthesia, and, in view of regret which is not infrequent, it should ideally be reversible. Hysteroscopic sterilization has the potential to fulfill these criteria, and has certainly long been the ideal for the gynaecologist. However, until recently, such an approach has remained more of a concept than a reality. The Essure (Conceptus, Inc) system fulfils many of the criteria above. It is the first transcervical method approved by the FDA in the USA following two clinical studies showing its safety and effectiveness. Other methods in the pipeline are the Intratubal Ligation Device

(BioMedical Engineering Solutions Incorporated) and the Adiana (Adiana, Inc). However, we believe there is still a need for further research to find a device with the success rate of the Essure but without its irreversibility. Our department is working in collaboration with Femcare (Nottingham, UK) on the Tubal Screw, a new technique for sterilization which is also applied hysteroscopically in outpatient clinic but unlike the Essure, is immediately effective and yet reversible.
However, is what we believe to be the nirvana for women actually what they desire?
Patient and methods: We are currently performing a study using a questionnaire to look at the views of women of reproductive age on sterilization. We wish to determine (a) what is women's understanding of sterilization, in terms of uptake, failure rate and reversibility, (b) what is their preference, in terms of hysteroscopy versus laparoscopy, and local versus general anaesthesia, and (c) what is the potential role of the Mirena IUS for women who are contemplating sterilization?
We plan to survey 100 women and will present our results. Through this questionnaire, we hope to have a better understanding of the potential role for newer, non-laparoscopic methods of female sterilization.

FC-63

Da vinci robotic surgery in gynaecological oncology

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Objective:to present our initial experience with Da Vinci robotic system.
Material : patients selected for oncologic robotic surgery,
Methods: a pilot study monitoring the feasibility of robotic surgery in gynaecological oncology.The study was conducted with Da Vinci system(Intuitive Surgical USA).The basic robotic Da Vinci System consisted of surgical console, 3D12 mm camera and 3–4 robotic arms.
Results: No significant complications were observed, the operating times were comparable to laparoscopic approach.Blood loss was insignificant. The cost for the procedure were conciderably higher in comparison to laparoscopy.
Conclusions: robotic surgery brings three important improvements in comparison to laparoscopy:
1/ Anti-intuitive instrument motion becomes intuitive using robotic system
2/ 2D visualisation changes to 3D in robotic surgery.
3/ Limited degree of surgical instruments in laparoscopy is improved to 7 degrees of freedom i robotic system.
The advantages of robotic surgery are evident in complex oncological procedures , where the dissection in deep and difficult areas has to be reached.
Especially the areas such as pararectal space, pelvic floor and deep obturator fossa are approached with advantage of robotic surgery. It is possible for one surgeon to control simultaneously 3D camera and 3 instruments. Long procedures are performed robotically without surgeon´s fatique and finger tremor.The robotic surgery system is the bases for telesurgery, possibility of instant second opinion and teleconferencing.

FC-64

Virtual Reality Laparoscopic Simulator, Face Validity And Construct Validity For The Use In Gynaecology

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Introduction: The applicability of virtual reality simulation for training endoscopic surgical skills has been evaluated with positive outcomes. Some of the virtual reality software is designed especially for training gynaecologists. The objective of this study was to validate computed virtual reality simulation as a tool to assess laparoscopic surgical skills in gynaecology by establishing the extent of realism of the simulation to the actual task (face validity) and by investigating the ability of the simulator to differentiate between the performance of subjects with varying laparoscopic experience (construct validity).
Methods: Subjects (N=56) were divided in three groups: novices (no laparoscopic experience, n=15), intermediates (between 1 and 75 laparoscopic procedures, n=20) and experts (>75 laparoscopic procedures, n=21). Face validity was determined by using a questionnaire of 27 statements after finishing the training program. All participants completed three repetitions of a training program that consisted of four basic exercises and three simulations of gynaecologic procedures. The simulator (LapSim, Surgical Science Ltd., Gothenburg, Sweden) measured performance in seven to fourteen parameters per task. The performance was compared between groups.
Results: The questionnaire was completed by 52 participants. The opinion about the realism and training capacities of the tasks was favorable among the groups, although experts were significant more critical than novices and intermediates. The degree of prior laparoscopic experience was reflected in the performance parameters of the tasks. Experts achieved significant ($p< 0.05$) better scores on specific parameters in the basic skills; camera navigation, instrument navigation and coordination, and in the gynaecologic simulations sterilization and salpingectomy in ectopic pregnancy.
Conclusion: The questionnaire demonstrated reasonable face validity. Analysis of training results demonstrated significant differentiation between subjects with different laparoscopic experience and thereby construct validity for the use in gynaecology was established.

TOPIC 8: UROGYNECOLOGY

FC-65

Laparoscopic Repair of vesicovaginal fistulae

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Objective: to evaluate the feasibility of laparoscopic vesicovaginal repair.Design and methods: we reported three cases of vesicovaginal fistula caused by previous surgery for benign disease. Women characteristics are reported in table 1.The diagnosis was made by

cystoscopy in all three patients. In the first case, through the injection of the contrast in bladder, a supratrigonal vesico-vaginal fistula of 2–3 mm was showed with the spread of the contrast in the upper vagina. In the second case the fistula of approximately 5 mm was located posterior and superior to the trigone and in the last case it was revealed a supratrigonal fistula of 3 mm on the left side. For the repair patients were placed in the lithotomic position and were given general anaesthesia. Initially they had cistoscopy and ureters were bilaterally identified. A n° 8 pediatric Foley catheter was used to cannulate the fistula from the vagina into the bladder to help its identification and excision. A 10-mm infraumbilical port was inserted and the laparoscope was introduced. After pneumoperitoneum was established, two 5-mm ports were introduced through two incisions made in the lower abdomen. A vaginal probe was used for manipulating the vaginal vault. Under direct laparoscopic observation, the peritoneum covered the vaginal cuff was dissected. The vesicovaginal space was developed laparoscopically and the bladder base was freed from the vaginal wall. In one case the bladder mobilisation was particularly difficult due to tension and inflammatory reaction around the fistula. The fistula was identified and excided.

Extramucosal interrupted sutures 1-0 Vicryl were placed both in the bladder and into the anterior vaginal wall using extracorporeal knotting. To control suture integrity 200 ml of contrast was injected into the bladder without consequent loss into the abdomen in all three cases. An intraperitoneal drenage was inserted and a Foley catheter was left in place into the urethra for 7 days. No complications were recorded. Prophylactic antibiotics were prescribed. All the patients were discharged 3 days after surgery and at 4 weeks follow-up they did not complained about leakage and they were assed with vaginal examination to confirm complete repair.

Table 1

Patient	Age	Previous surgery	Indication	Time between previous surgery and fistula's symptoms	Time between symptoms and fistula's repair	Operative time	Blood loss
1	44	Abdominal hysterectomy	Uterine bleeding	23 days	40 days	110 minutes	50 ml
2	45	Abdominal hysterectomy	Uterine fibroids	30 days	60 days	90 minutes	70 ml
3	50	Abdominal hysterectomy	Metrorrhagia	15 days	45 days	100 minutes	40 ml

Discussion: laparoscopy represents a technique which allows for abdominal approach with advantages such as magnification during the procedure with consequent great exposure.

With the laparoscopic approach different tissues can be interpose between the bladder and vagina such as omentum (5–6–7), peritoneum (4), epiploic appendix (7) or mesenteric fat (8) with the intent to add an additional layer of separation.

To better identify the fistula before its excision we suggest to cannulate it from the vagina into the bladder with a n° 8 Foley catheter.

The outcome obtained in the three patients treated with laparoscopy add successful results to the others few cases described by different authors. We believe that laparoscopy can represent an alternative to traditional abdominal technique to repair vesicovaginal fistula.

FC-66

Safety of inside-out transobturator approach for urinary stress incontinence treatment: Prospective multicentric study of 984 patients - French TVT-O® registry.

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Objective: Evaluate the safety of inside out transobturator approach for surgical treatment of urinary stress incontinence (USI).

Design: 984 patients were included in a prospective mulcentric study. Surgical procedure was an isolated cure of USI: sb urethral sling (TVT0® - Gynecare) by inside out transobturator approach. ch patient was followed up 4 weeks to 12 weeks after surgery to assess urinary functional results and quality of life.

Results: Surgical procedure was performed under general anaesthesia for 54%, spinal anaesthesia for 40% and local anaesthesia for 6%. Mean operation time was 17.0 minutes. No bladder injury was noted. We observed 13 cases (1.3%) of vaginal wall perforation and one case of urethral injury (0.1%). Rate of re intervention was 0.9%: one case of paravesical hematoma required a drainage and 8 cases of urinary retentions required a release mesh procedure. Concerning follow up, no perineal neurological complication was encountered. Twenty-seven patients complained of residual pain (2.7%). No one required opiod or non-opiod analgesic medical treatment. Concerning functional results, patients were completely cured in 886 of cases (90.0%). USI was significantly reduced for 75 cases (7.6%); reduced for 11 cases (1.1%) and not modified for 12 cases (1.2%). Concerning urinary urgencies, we observed 36 de novo cases (5.3%). Dysuria was noticed in 17.3% (170/94). Six patients have been re operated: 2 partial resections of tape for vaginal erosion; 2 sections of sling for retention and 2 cures of persistent USI using retropubic sub uretral sling.

Conclusion: The absence of major peri and postoperative complication stressed the safety of this technique compare to retro pubic procedure. Concerning functional evaluation and USI, the results are promising and seem equivalent to retro pubic tape.

FC-67

New laparoscopic technique for cure of Cystocele and Stress Urinary Incontinence without mesh

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Introduction : To report a new laparoscopic technique for treatment of medial and lateral cystocele and SUI.
Methods : Seventeen patients, from February 2005 to January 2006, who presented with a cystocele with or without SUI, subsequently underwent the procedure.
Our technique includes two steps. The first step addresses the lateral cystocele or SUI and consists of opening the peritoneum vertically between the umbilical ligament and the round ligament, on each side, to identify the Cooper's ligament and the paravaginal space. The lower and lateral vaginal wall (pubocervical fascia) apart from the umbilical ligament is suspended to the Cooper's ligament using 2 permanent sutures. The second step addresses the medial cystocele and consists of dissecting the pubocervical fascia at the level of the cystocele inside the umbilical ligament and suspending this area to the Cooper's ligament, using permanent sutures. The new technique is usually associated with other procedures to achieve a global cure for the prolapse.
Results : Peri and post operative complications were absent with improvement of cystocele. The main benefits of the procedure are a global treatment of medial and lateral cystocele and SUI without large opening of the Retzius space, avoiding a risky dissection and limiting hematoma formation within the Retzius space. It does require the use of sutures without any mesh.
Discussion : The laparoscopic anterolateral colposuspension to Cooper's ligament is an efficient procedure without using mesh.

FC-68

Mid-term results following surgical treatment for female urinary incontinence with a sub-urethral tape by "in-out" transobturator route. Morbidity and assessment of a new ambulatory procedure in 79 patients.

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Introduction: To evaluate feasibility, efficiency and morbidity of a new ambulatory surgical treatment of female stress urinary incontinence (SUI) using a sub urethral tape inserted by a transobturator "in-out" route.
Methods: Between January 2004 and January 2006, 79 consecutive patients underwent a surgical cure of SUI using a sub-urethral polypropylene macroporous monofilament tape TVT-O® (Gynecare, Ethicon) according to the procedure described by de Leval in 2003. An isolated cure of SUI using TVT-O was performed in 61 patients (77.2%); 18 patients (22.8%) had a combined surgery (prosthetic reconstructive surgery for prolapse by vaginal or laparoscopic approach with or without concomitant hysterectomy). The procedures were performed under general (87.3%) or loco-regional (12.7%) anaesthesia. The preoperative assessment included clinical gynaecologic examination and urodynamic study. In the post operative period, we studied the following parameters: pain, duration of hospital stay, urinary and sexual de novo symptoms, urine flow parameters, success rate and satisfaction index.
Results: The mean patient's age was 55 years ± 10. The mean BMI was 25.4±4. The mean subjective functional discomfort reached 7.2± 1.6 on a scale between 0 and 10. The procedure was feasible in all cases. The mean operative time was 16.5±6.5 minutes. There was no bladder, urethraL or bowel injury. Intra-operative bleeding was less than 50 ml in all cases. 100% of the operated patients of a TVT-O® alone left the operating theatre without urinary catheter. The mean hospital stay was 17±8 hours for the TVT-O group and 80±29 hours for combined surgery group. The mean follow up was 8.4 months. 93.7% of patients were completely cured and 6.3% were improved. The cure rate was not related to age (higher than 50 years), nor to BMI (superior to 25) or to urethral sphincter insufficiency (MUCP <30 cm H2O). The de novo urinary symptoms were voiding disorders (5.5%) and urgency (14.1%) with or without urge incontinence. Post operative urinary infection occurred in 2.5% of cases, all in the combined surgery group (urinary catheterisation). Combined surgery did not modify de novo urinary symptoms rate but induced a significant increase in the urinary rate of infection (p=0.04) and transient pain (p=0.05). The analysis of the post-operative urine flow measurement indicates a mechanical obstruction without major clinical repercussion. No case of vaginal or urethral erosion was observed. The early post-operative pain was >5/10 on a VAS scale in 28.2% of the cases and required morphine in 16.5% of cases. The mean satisfaction index was 8.4/10.
Discussion: The TVT-O® seems to be a minimally invasive, simple, safe, fast and effective ambulatory procedure. Recent anatomic studies concluded that the needle trajectory was safe and precise. The "in-out" route avoids bladder, urethra and bowel intra-operative injuries. A better management of the post-operative pain seems necessary to improve patient's satisfaction index.

FC-69

Evaluation of vaginal vaultand posterior wall prolapse repair by posterior polypropylene tape and rectovaginal porcine dermis mesh

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Introduction:
To evaluate the results of vaginal vault and posterior wall prolapse repair by posterior polypropylene tape and rectovaginal porcine dermis mesh.
Methods:
Retrospectively, based on a 2004 uro-gynecologic database, 35 female patients underwent surgical repair by posterior polypropylene tape (SPARC™, AMS) associated with a rectovaginal porcine dermis mesh (INTEXENE™, AMS), by the same operator. Post-operatively, patients were evaluated at 1 month, 3 months, 6 months, 1 year, 18 months and 2 years.
Results:
A total of 35 patients were followed-up, with a median at 15 months. Pre-operatively, the rectocele distribution was 31% grade 2, 31% grade 3, and 31% grade 4. 89% of the patients complained of prolapse and 25% of rectal emptying difficulties. 43% of vaginal hysterectomy and 63% of anterior utero-vesical INTEXENE™ mesh were performed in concomitant procedure. No intraoperative complication and no serious bleeding were reported. Anatomically, on follow up at 12 months, 3% (1 patient) had repeated rectocele (grade 3 and 4). Evolution of complaints, 3% (1 patient) at 6 months and 9% (3 patients) at 12 months had rectal emptying difficulties. No increased risk of dyspareunia was detected. The success rate of rectocele and vaginal vault repair is 97%.

Discussion:
The repair of vaginal vault and posterior wall prolapse by posterior polypropylene tape SPARC™ and rectovaginal porcine dermis mesh INTEXENE™ delivered very satisfactory results. There was no direct complication due to the use of intra-vaginal INTEXENE™ mesh and posterior polypropylene tape SPARC™. No increased risk of dyspareunia was detected.

FC-70

Laparoscopic sacral colpopexy in the genital prolapse

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Objectives : The objectives of laparoscopic reconstructive repair are: to restore functional anatomy, to correct anatomical defect and therefore to achieve a long term duration support system without recurrences. With the well-known advantages of laparoscopy and the precision of endoscopic vision allowing direct access to anatomical spaces that were difficult to reach by laparotomy, the results are improving with perfect anatomical correction and good functional results.
Methods : Since March 2002 to May 2006 we performed 35 sacrocolpopexies by laparoscopy using polypropylene mesh (Prolene) and permanent sutures according to the A. Wattiez technique. The average age was 56 years. Clinical evaluation and diagnosis of all the defects in the different compartments were done preoperatively and urodinamic test in the patients with SUI. The procedure was: dissection of the promontory, right lateral peritoneum and rectovaginal. Supracervical hysterectomy is the chosen technique for women with uterus because it has the advantage of leaving the vagina closed. The mesh is positioned and fixed at the back including each levator ani muscles, then the Mc Call culdoplasty is carried out before the mesh is fixed in front. Peritonization of the lower areas, then fixation of the mesh to the promontory and the peritonization was completed. The transperitoneal Burch procedure was carried out in 8 patients with SUI. Uterus morcelation and peritoneal washing. 12 of the women had vaginal vault prolapse after hysterectomy and the remaining 23 women had pelvic uterine prolapse; 12 of them underwent supracervical laparoscopic hysterectomy and 11 of them total laparoscopic hysterectomy.
Results : There is no long-term follow-up to know our results. The surgery was successful in 33 patients. In one case there was an anterior compartment recurrence and no urinary continence after the Burch procedure. Another patient presented a post-operative spondilodyscitis that was treated with antibiotics. There were no intraoperative complications and not much blood loss. The operating time was between 120 and 240 minutes. Antibiotic therapy was systematic and hospitalisation lasted between 48 and 72 hours.
Conclusions : The main objectives are to restore anatomical function and to obtain an adecuate and global long term pelvic floor reconstruction using a mesh to replace the weak and damaged native tissue. It is especially indicated in young an active patients that present a complex genital prolapse or a vaginal vault prolapse . Laparoscopic sacral colpopexy with mesh insertion reduces recurrence rates with similar results than laparotomy and with the less morbidity of vaginal way, but long-term follow-up studies are necessary to know the results.

FC-71

Laparoscopic management of pelvic organ prolapse by using "Gynemesh PS"

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Objective: We performed laparoscopic correction of uterine or vault prolapse with cystocele and rectocele by using "Gynemesh PS".
The purpose of this study is to evaluate surgical outcomes and perioperative morbidity after laparoscopic operation.
Materials and methods: From August 2004 to September 2005, we performed the laparoscopic repairs in 6 cases of vault prolapses and 15 cases of uterine prolapses . Uterine and vault prolapse were repaired by laparoscopic rectocele & cystocele repair by using "Gynemesh PS", uterosacral ligament suspension, paravaginal repair and Burch colposuspension. In uterine prolapse, we carried out subtotal hysterectomy. Stage of prolapse was classified by pelvic organ prolapse quantification (POPQ) system.
Results: The mean age, Q-index and parity was 64 years (range 47~79 years), 24.6 (range 18.7~27.8) and 5 (range 3~10). Mean operation time was 141 minutes (range 90~211 min). Mean estimated blood loss was 53 ml (range 20~80 ml). Mean hospital stay was 5 days (range 3~9 days). The major complication was none. But postoperative voiding difficulty was developed in 1 case. Mean preoperative POPQ stage was 3 and immediate, 6 weeks, 3 months, 6 months, 1 year postoperative POPQ score was 0. Most notably, the vaginal cuff (point C) improved a mean 7.5 cm from a point 2.5 cm distal hymen to a point 7.5 cm proximal. Mean follow-up period was 7.5 months (range 3~13 months).
The objective success rate was 100%.
Conclusions: Laparoscopic pelvic floor repair is an effective, safe procedure and enables to combine the advantages of laparotomy with the low morbidity of the vaginal route. The uterosacral ligament suspension is the most anatomical repair of defects and hence least likely to predispose to future defects in the anterior or posterior vaginal wall or compromise vaginal function. However, further studies are required on long term efficiency and reliability in order to evaluate the value of this technique.

FC-72

Robotic surgery in urogenital prolapse repair

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Introduction: The robotic surgery is often reported as revolutionary step in evolution of endoscopic surgery. These systems are designed for assistance or as fully robotized devices with surgical instruments fixed to robotic arms. The surgeon's movements are converted to the instruments by advanced computer interface and precise mechanic transmision. The final movement can be scalled according to surgeon's demand . We present our first experience using Da Vinci robotic system.Objectives: to evaluate the development of robotic surgical systems and to assess their role, efficiency and application in urogenital prolapse surgery.
Design & methods: a feasibility pilot study including first patients who underwent robotic surgery for various degree of urogenital prolapse.
Results: All surgeries were succesfully completed with no major complication as bowel or vesel injury or rmassive hemorrhage. The surgery time was longer than using classic laparoscopy but due to moderate learning curve became within 10 cases comparable.The blood loss was minimal.The postoperative follow-up was 3,9 months (1–7) with no significant morbidity.
Conclusions: The robotic surgery has a potential to abolish the limits of laparoscopy especially in advanced dissection and suturing due to instruments flexibility. As disadvantage we find the absence of tactile perception, time of preoperative preparation and costs. Our target is using the robotic system in the advanced complex laparoscopic procedures and to cooperate with other robotic centres.

FC-73

Different types of tension free vaginal tapes (tvt, tvt-o) in treatment of stress incontinence

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Introduction: About 45% of postmenopausal women in Russia have disorders of urination and stress urinary incontinence (SUI). More than 5 000 women with genital prolepses were operated in our clinic since 1990. Among them 47, 3% had SUI
This study was performed to evaluate two different surgical treatments for SUI and their clinical results.
Methods: 280 patients were operated using TVT (202 patients) and TVT obt (78 cases) from 2000 to 2005 year. Age of patients is 14 to 79 year (average 49, 7). There were 43, 9% postmenopausal women. In most cases TVT/TOT and surgical treatment of genital prolapses have done in one time. There was TVT/TOT and colporraphy, VH, Manchester or colpocliesis.
There were been 24 complications, when TVT was done: bladder perforations - 5(1,8%), hematoma - 2(0,7%), disorders of bladder emptying - 18(6,4%). There wasn't complication when TVT obt was performed.
Results: Long-term results (5 years) of surgical treatment of SUI by TVT/TVT obt technology have shown 95, 7% excellent and good results and 4, 3% of patients have minor symptoms of incontinence (de novo incl.). The negative results were not noted after TVT obt. All patients are "dry", without any disorders.
Discussion: Now TVT is considered "gold" standard of surgical treatment of SUI. But transobturatorium way (TVT obt) has some advantages: no risk of bladder perforation, no postoperative disorders of bladder emptying.

TOPIC 9: REPRODUCTIVE SURGERY

FC-74

Transvaginal endoscopy and bipolar capsule drilling in PCOS patients

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Introduction: The aim of the study is to evaluate the feasibility of drilling of the ovarian capsule using the technique of transvaginal laparoscopy.
Materials and methods: Anovulatory women with PCOS, not responding to 150 mg clomiphene citrate or with failure of ovulation induction with gonadotrophins, were referred for electrocautery of the ovarian capsule using a transvaginal endoscopic access. Access to the pelvis is gained through a simple needle puncture technique of the pouch of Douglas using a specially developed needle-trocar system (Storz,Tutlingen). Electrocautery was performed using an Erbotom ICC 350 (Erbe,Belgium). For the purpose of drilling of the ovarian capsule, we use a 5 Fr bipolar needle (Storz, Tüttlingen). On each ovary 5–10 punctures were created. Cycle evaluation was performed 8–10 weeks after the procedure.
Results: A transvaginal electrocautery was performed in 39 patients with a mean age of 30.38 y (± 3.8), mean BMI 29.4 (± 9.7) and a mean duration of infertility of 26.5 m (± 2.6). Additional female pathology was detected in 12 patients of whom 10 (83%) represented uterine pathology. Recurrence of spontaneous cycle after drilling occurred in 8 patients (20,5%); ovulation induction was done in 10 patients. In 7 this therapy was combined with IUI. Six patients did become pregnant spontaneously after drilling and pregnancy was obtained in 8 patients after ovulation induction with or without IUI. In 17 patients referral to IVF was necessary because of male infertility (n=10) or failure of ovulation induction (n=7) resulting in 12 pregnancies. In those patients with normal male fertility (n=19) pregnancy occurred in 47% without the necessity of referral to an IVF program.
Conclusion: Our experience showed the feasibility of electrocautery of the ovarian capsule through transvaginal laparoscopy with results comparable with those obtained through standard laparoscopy. As the transvaginal approach offers a direct access to the ovarian surface, there is no need for extra manipulation. The procedure is easy to perform with a very low morbidity.

FC-75

Laparoscopic retrieval of Autologous Ovarian Stem Cells to be cultured into Oocytes in ratients with premature ovarian Failure

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Introduction: Premature ovarian failure (POF) affects approximately 1 in 200 to 300 women under the age of 40. Possible etiologies of POF include genetic and cytogenetic causes, enzymatic defects, environmental insults, immune disturbances, defects in gonadotrophin structure or action, and iatrogenic causes. Women with POF are not able to conceive and have a genetically related child with her own oocytes, either spontaneously or via conventional in vitro fertilization (IVF). Existence of stem cells in adult human ovary has not been well established yet. The aim of our study was to prove the existence of stem cells and to culture them into oocytes in women with POF.
Methods: Three patients with POF and without detectable oocytes underwent diagnostic laparoscopy and possible ovarian stem cell retrieval. Four techniques of retrieval were applied: scratching and brushing the ovarian surface, ovarian biopsy and finally washing the ovarian surface followed by aspiration of the pouch of Douglas.
Results: In each patient ovarian stem cells were isolated and cultured in a special medium with weak estrogenic activity. Cells were differentiating into different cell types, mostly fibroblasts. After 3 days of culture round oocyte-like cells started to develop in 2 of the 3 patients. On day 4 of culture typical germinal vesicle appeared. In 2 patients a thick ovarian surface epithelium (OSE) was observed; in both a rich ovarian cell culture with oocyte-like cells was developing. In one patient there was a very poor ovarian cell culture with no oocyte-like cells development.
Discussion: Our work has undoubtedly proved the existence of ovarian stem cells in patients with POF. Furthermore, oocyte-like cells have been cultured. The development of ovarian stem cells culture and oocyte-like cells was related to the thickness of OSE, which confirms that OSE is a source of stem cells. Diagnostic laparoscopy in infertile patients with POF can be combined with a simple ovarian stem cell retrieval to investigate the possibility of in vitro oogenesis. A chance for women with POF to conceive and have a genetically related child has emerged on the horizon.

FC-76

The role of outpatient diagnostic hysteroscopy in assisted reproduction: a rewiew of 1768 Cases

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Introduction: To study the feasibility and utility of outpatient diagnostic hysteroscopy in infertile patient involved in Assisted Reproduction Technology (ART).
Methods: Monocentric retrospective study between May, 1994 and January, 2006 at an outpatient hysteroscopic consultation of a teaching hospital. Out of a total of 4563 procedures, 1768 were performed before or during ART, 641 (36.2%) after implantation failure in in vitro fertilization (IVF), 537 (30.4%) before enrolment in IVF, 339 (19.2%) after failure of intrauterine insemination (IUI), 228 (12.9%) before IIU, and 23 (1.3%) after difficult or failed embryo transfer during IVF. Intervention consists in a diagnostic hysteroscopy with a rigid and panoramic hysteroscope. The feasibility of the hysteroscopy was graded (easy, difficult, impossible) along with the quality of the view (good, acceptable, poor, nil), and the condition of the cervical canal, the shape of the uterine cavity, its size, the condition of endometrium and myometrium along with any treatment performed were noted.
Results: The passage of the cervical canal was easy in 83.4%, difficult in 13.1% and impossible in 3.5%. The quality of the view was good in 87.8%, acceptable in 7.1%, poor in 1.2% and nil in 3.8%. Pathology of the cervical canal was found in only a few, except in the group of difficult or failed of embryo transfer, which had a 10% incidence of cervical stenosis. Uterine malformations were noted in 4.1%. Pathology of the endometrium was found commonly, with hyperplasia in 6.7%, polyps in 6.7%, chronic endometritis in 4.9%, synechiae in 2.4%. Pathology of the myometrium was rare with 2.8% sub-mucous myomas, 2.5% intra-mural myomas, and 1% adenomyosis. In more than 20% of the cases, a treatment was prescribed at the end of the procedure: operative hysterocopy in 13.1%, medical treatment in 4.8%, hormonal treatment in 3.1% and myomectomies in 0.6%.
Conclusions: Outpatient diagnostic hysteroscopy is feasible in the majority of patients included in ART and permitted the diagnosis and treatment of findings where pathology was found.

FC-77

Innovative barriers for peritoneal adhesion prevention - liquid or solid. A rat uterine horn model.

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Objective: To compare the effects of solid barriers (PDLA membrane and foil, Interceed©), innovative barrier solutions (Adept© and Hyalobarrier Gel©, phospholipid emulsion) and Ringer's lactate solution in preventing postsurgical peritoneal adhesions in the rat.
Design: Prospective, randomized experimental study
Setting: Rat model in an academic research environment
Animals: Female, non-pregnant Wistar rats
Interventions: Standardized surgical injuries were applied to the parietal and visceral peritoneum and the uterine horns. The barrier agents were applied and the wound was closed. A second-look laparoscopy was performed 31 days after surgery to assess adhesion formation. Main outcome measures: Severity and extent of adhesion formation assessed using a multi-dimensional adhesion scoring system.
Results: Significantly fewer postsurgical adhesions were seen after treatment with Adept, Hyalobarrier Gel, Interceed, PDLA membrane and phospholipid emulsion than after Ringer's lactate solution. Severe, clinically relevant adhesions were not observed after Hyalobarrier Gel and in only one animal after Adept.
Conclusions: Both solid and liquid barriers can prevent adhesions. Hydroflotation formulas such as Adept and Hyalobarrier Gel avoid suture-induced adhesions, are easy to use, and their protective effects are evenly distributed. They are suitable for adhesion prevention after multifocal trauma in rats, and require further testing in the everyday clinical situation.
Key Words: adhesion prevention, uterine horn model, Adept, icodextrin, phospholipids, Hyalobarrier Gel, Interceed, ORC, PDLA copolymer

FC-78

Ovarian response to Gonadotrophin Stimulation in patients with previous endometriotic cystectomy

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Introduction: To investigate the follicular response of ovaries after laparoscopic ovarian cystectomy for endometriotic cyst.
Methods: Data from 298 infertile patients with endometriosis referred for IVF-ET/ICSI were reviewed. Forty five women who underwent laparoscopic excision of a monolateral endometriotic ovarian cyst before IVF-ET/ICSI were selected. Follicular responses of postcystectomy ovary and normal ovaries were compared.
Results: The mean (± DS) number of follicles >15 mm was 1.5±1.6 in postcystectomy ovaries and 3.6±2.8 in the control ovaries ($P<0.05$). For women ≥ 35 years of age, the mean follicular response of normal ovaries and mean number of follicle of ≥15 mm were reduced significantly when compared to control ovaries in women <35 years of age (4.1±3.5 versus 8.7±4.4;1.9±1.8 versus 5.1±2.7), while post-surgery ovaries showed a similar reduced response in both age groups.
Discussion: Postcystectomy ovaries showed reduced follicular response particularly in women ≥ 35 years of age. Ovarian surgery in reproductive age, when proposed, should be performed with very cautious technique to preserve normal residual ovarian tissue.

FC-79

Hysteroscopic section of the septate uterus using Bipolar Diathermy : anatomical and reproductive Outcomes

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Introduction: To evaluate the efficacy of hysteroscopic metroplasty using bipolar diathermy for a septate uterus.
Methods: Design: Retrospective monocentric study. Setting: Teaching university hospital. Patients: Sixty patients with a septate uterus. Mean age was 30.9±5.4 (19–42). Eight patients had a complete septate uterus (class Vb of AFS) and 52 subtotal (class Va of AFS). 32 patients were infertile. Sixty patients had 81 previous pregnancies with 59 spontaneous miscarriages (72,8%), 6 preterm deliveries (7.4%) and 12 live births (14.8%). Intervention: Section of the uterine septum using a 5 mm operative hysteroscope and bipolar diathermy (Versapoint®) with saline as a solution media. Measurements: The main outcomes were anatomical result, assessed by hysterosalpingogram, complications of the procedure and pregnancy outcomes.
Results: Anatomical results were good in 80% of the cases. Twelve women (20%) had a residual septum and required a second procedure. There were two cases of minor fluid overload and 1 case of late haemorrhage. The mean follow-up was 38.9± 22.9 months (6–88). Four patients were lost to follow-up and 3 no longer desired pregnancy. 39 women (69.6%) conceived with 56 pregnancies. 41 of them were spontaneous (73.2%). There were 37 live births (68.5%) and 2 ongoing pregnancies in the third trimester. The spontaneous miscarriage rate was 21.4%. 33 women had at least one live birth (58.9%).
Conclusions: Hysteroscopic metroplasty using bipolar diathermy (Versapoint®) is both safe and effective in increasing live birth rate and reducing the abortion rate. Our data suggest that this surgery can improve pregnancy outcome.

FC-80

Conservative vs. radical surgical treatment of ectopic pregnancy in women desiring further fertility

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Objectives. To evaluate fertility following laparoscopic surgical treatment of ectopic pregnancy (EP) in women desiring further fertility and to compare pregnancy rates after salpingostomy and salpingectomy.
Design and Methods. Retrospective study performed in a tertiary care university centre. In the time period from 1994 to 2000, 801 women underwent laparoscopic surgical treatment of EP; 531 fulfilled the criteria for the study - the possibility of spontaneous conception, less than 38 years of age and desire for further fertility. They were sent a self-administered questionnaire; 361 (74.2%) responded, and 268 women who attempted to conceive, were enrolled in the study. Salpingostomy was performed with monopolar needle without suturing the tube and salpingectomy with bipolar forceps and scissors. Most of the procedures were performed by residents and younger gynecologists not experienced in tubal surgery, therefore the scoring system for surgical treatment was, unfortunately, not always taken into account. The data were statistically analysed using Chi-square test, Student t-test and odds ratio.
Results. Spontaneous pregnancy occurred in 142 (55.9%) women, in 55 (75.3%) following salpingostomy and in 87 (69.0%) following salpingectomy. The pregnancy rate was higher after salpingostomy, but not statistically significantly. In the salpingostomy group the delivery rate was 58.2%, the spontaneous abortion rate 14.5%, the repeat EP rate in the same tube 14.5% and in the contralateral tube 12.7%, and in the salpingectomy group 59%, 9.2%, respectively, while EP in the remaining tube occurred in 26.4% of women.
Conclusions. Laparoscopic surgical treatment of EP is effective resulting in over 50% intrauterine pregnancy rate. Despite widespread assisted reproductive technologies, there is still place for conservative surgical treatment of EP, particularly in younger women and in women with a single tube, but to achieve even better results, experience in tubal surgery is recommended.

FC-81

Pregnancy outcomes following treatment for symptomatic fibroids: laparoscopic uterine artery occlusion versus uterine embolization

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Objective: The aim of this study was to compare pregnancy results in women with symptomatic fibroids who were treated with laparoscopic uterine artery occlusion (LUAO) to the results in women who were treated with uterine artery embolization (UAE).
Design &Methods:
A total of 295 women underwent uterine artery occlusion (n=193) or uterine embolization (n=102) in a multicentric clinical trial. The data from 22 pregnancies after LUAO and 17 pregnancies after UAE were reported. The following data were compared: time to conception, rates for pregnancy, Caesarean delivery, preterm delivery, small for gestational age, spontaneous abortion and complications. The data analysis included Fisher's exact test, paired t-test and chi-squared test.
Results: Pregnancies after uterine embolization (53.8%) had higher rates for spontaneous abortion than did pregnancies after surgical artery uterine occlusion (15%),(P<0.001]. The risk of malpresentation (25%), postpartum haemorrhage (25%), rate for Caesarean section (75%) after UAE were similarly higher than risk after laparoscopic occlusion, however, these differences were not statistically significant. Also, there were no significant differences between the groups in the preterm deliveries (14.2%, LUAO group versus 12.5%, UAE group).
Conclusion: Pregnancies in women with symptomatic fibroids, who were treated by uterine embolization compared with pregnancies after laparoscopic uterine artery occlusion, were at significantly increased risk for spontaneous abortion.

FC-82

Ovarian drilling: is it an optimal approach?

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Objective: To access the efficacy of laparoscopic ovarian drilling at ambulatory surgery in cases of polycystic ovarian syndrome (PCOS) after failure of medical treatment.
Patients and methods: Retrospective study including 40 women with primary infertility and PCOS that underwent outpatient laparoscopic ovarian drilling between January 2002 and April 2006. Hormonal status before and after surgery, complications and pregnancy rate were considered. Correlation between menstrual cycle pattern, transvaginal ultrasound scan and anovulation.
Results: Intra-operative complications were rare and there was no major complication. Pregnancy rate was high, the majority being spontaneous and occurring in the near menses after the procedure. Respecting the women that did not conceive, most of them became regular in menstrual cycles and over half had associated another infertility factors (male and tubal factors and/or endometriosis). Some of these patients with a hormonal status described as typical PCOS had a regular menstrual cycle pattern. There was a good correlation between ultrasound scan and hormonal levels.
Conclusion: The ovarian drilling is a minimal invasive, highly effective and well tolerated therapy procedure in PCOS. It can be done as Outpatient Surgery, in carefully selected women, with few complications and a high successful rate.

FC-83

Fertility and pregnancy complications after hysteroscopic myoma resection

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Objectives: The primary aim of this study was to determine fertility and pregnancy rates in infertile women who underwent hysteroscopic myomectomy by monopolar resectoscopy. In this study, we focused our attention on ascertaining the structure and frequency of following pregnancy complications.
Materials and Methods: Thirty-six infertile woman with submucous myoma from large tertiary reference center were included in this study. In this group, primary infertility was in 24 (67%) patients, while secondary - in 12 (33%), mean (±SD) age was 28,8±4,6 years. The mean myoma size was 32±12 mm, and intracavitary myomas were in 10 women (27,8%), intramural Class I in 22 cases (61,1%), and Class II in 4 cases (11,1%). The myomectomy was performed by common technique using monopolar resectoscopy in 5D solution, infused by a hysteropump. The mean operating time was 27±12 minutes.
Results: According to our study, the viable pregnancy and live births achieved after hysteroscopic myoma resection in 26 cases, which constitutes 72% of all group. Combined perinatal loss was low and consisted of two (8%) abortions in the first trimester. First trimester of pregnancy was marked by such complications as early gestosis in 10 patients (38,5%), uterine cramping in 4 (15,4%) and first-trimester vaginal bleeding in 3 (11,5%). During second and third trimester our attention was turned to such common factors of perinatal morbidity as placental insufficiency in 10 (38,5%), which led to IUGR in 2 (7,7%) cases, anemia in 16 (61,5%), pre-eclampsia in 8 (30,8%), preterm rupture of membranes in 7 (26,9%) woman. Cesarean section was performed in 15 cases (57,7%), due to current Ukrainian protocols. At the same time, there were no risk of uterine rupture in labour. All pregnancies totalled in 29 live newborns, due to three twins pregnancies (11,5%). Mean infant weight was 3416±184 grams and mean height 52,4± 1,2 cm, which does not statistically differ from means in population.
Conclusions: This study point out to the conclusion that increased frequency of the first-trimester threatened abortion may be due to changes in vascular structure of uterine wall after the resectoscopy, but is successfully managed by standard diagnostic and treatment protocols. Hysteroscopic myomectomy provides us with a safe operative method allowing for subsequent vaginal labor and could be considered as a successful reproductive technology in women with submucous myoma, providing with good results of fertility restoration and viable pregnancy rates.

FC-84

The role of diagnostic laparoscopy in current fertility diagnosis and treatment

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Introduction :
Although laparoscopy enables us to visualize and treat pelvic pathology in a one step fashion , its role in current fertility diagnosis and treatment is under debate. The evolution in assisted reproduction technology with higher pregnancy rates has provoked a shift in the diagnostic and therapeutic algorithm.
This paper presents a survey on the literature evidence concerning the current role of diagnostic laparoscopy in the infertility work-up.
Methods:
A systematic search on the role of diagnostic laparoscopy in the medical literature of the past decade via PubMed with the key words " diagnostic laparoscopy" and "subfertility" was performed.The methodology of the study , the level of evidence and the strength of recommendation were primary endpoints with regard to the results.
Results and discussion:
Current literature on the role of diagnostic laparoscopy shows only few randomised controlled studies.In the clinical setting of ovulation induction therapy with a normal hysterosalpingogram and normal male parameters, a diagnostic laparoscopy is meaningful after 4 failed cycles because of the high prevalence of pelvic pathology, more specifically adhesions and endometriosis , amenable in the same procedure for both diagnosis and treatment.
Laparoscopic ablation and adhesiolysis of minimal and mild endo-etriosis effectively doubles the monthly fecundity rate.
Laparoscopic drilling of the ovarian cortex in case of clomiphene resistant PCOS is as effective as gonadotrophin treatment but has a significant lower multiple pregnancy rate.The role of diagnostic laparo-scopy in the work-up of intra-uterine insemination is under debate.In the IVF setting , the role of diagnostic laparoscopy is limited to a number of specific indications. Recommendations based on this review are presented with level of evidence and strength of recommendation.

TOPIC 10: FIBROID

FC-85

Laparoscopic occlusion of uterine vessels compared to uterine fibroid embolization: clinical results of a randomized study

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Objective: To compare clinical outcomes six months after treatment with bilateral laparoscopic occlusion of uterine artery and uterine fibroid embolization (UFE).
Design & Methods: The study participants were referred to Ullevål University Hospital, Oslo, Norway with symptomatic uterine fibroids. Sixty-six premenopausal women were randomly assigned to treatment with either laparoscopic occlusion of uterine arteries or UFE. The percent reduction of blood loss measured by blood loss assessment charts (PBAC) from pre-treatment to six month control was used as the primary endpoint. Among secondary endpoints were patient's assessment of menstrual bleeding and pressure symptom reduction, postoperative pain and nausea registrations by visual analogue scale, the amount of narcotics used postoperatively, secondary interventions and clinical failure defined as persisting symptoms as indication for secondary treatment or no improvement at six month control. The results of intention to treat analyses are reported.
Results: Fifty-eight subjects received treatment, twenty-nine in each group. Six months follow up data were available on 56 participants. The percent reduction of PBAC did not differ between the treatment groups (52% after UFE and 53% after laparoscopy, p=.96). Bleeding reduction was reported among 26 (90%) after UFE, and among 25 (86%) after laparoscopy (p=.69). The number of participants complaining of heavy bleeding six months after treatment was less in the group treated with UFE (3,7% compared with 20,7%, p=.044). There was significantly more postoperative pain and nausea after UFE. The amount of analgesics (ketobemidon) used were significant higher after UFE (46 mg compared with 12 mg, p<.001). No other endpoints revealed differences between the treatment groups.
Conclusion: Even though there was no difference in primary outcome between the treatment groups, we found that the laparoscopic procedure was less traumatic for the patient, but had slightly less favourable result on bleeding reduction compared to UFE.

FC-86

Long-term results of laparoscopic radiofrequency thermal ablation of uterine fibroids

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Objective: To evaluate the long-term effectiveness of laparoscopic radiofrequency thermal ablation in the treatment of uterine fibroids.
Methods: Women affected by symptomatic intramural myomas who underwent radiofrequency thermal ablation under laparoscopic guidance were included. Radiofrequency ablation of myomas was performed using the RF delivery system (Rita Medical System model 1500, Mountains View, USA). The procedure was offered only to premenopausal women over 40 years who had completed child-bearing and declined hysterectomy. Postoperative changes in fibroid volume were the primary outcome measure of the study. When more than one myoma was treated in a single patient, only the characteristics of the dominant one were considered for the analysis. Postoperative sonographic evaluation of fibroid size were scheduled at 1, 3, 6, 9 and 12 months after surgery and then yearly. The impact of fibroid symptoms was assessed using the Uterine Fibroids Symptom and Quality of Life (UFS-QOL) questionnaire. Statistical analysis was performed with the Wilcoxon matched pair test.
Results: Twenty-seven patients entered the study. Median number of fibroids treated per patient was 1 (1–3). Median follow-up was 24 (3–36) months. Median baseline volume of the dominant fibroid was 73 (15–332) cm^3. Operative time ranged from 20 to 40 min (median = 25). No intra- or postoperative complications occurred. Median reductions in myomas volume were 43%, 59%, 69% and 75% at 1, 3, 6 and 9 months respectively. No further significant change in median fibroid volume was observed starting from 9 months after surgery. A progressive improvement in the QOL scores was observed at 3 and 6 months after surgery. Fourteen out of the 17 patients who completed the 2-year and all the 10 who completed the 3-year follow-up period were symptom-free. One patient underwent hysterectomy 12 months postoperatively because of enlargement of the myomas and relapse of symptoms.

Discussion: Long-term follow-up data confirm that laparoscopic radiofrequency thermal ablation of uterine myomas is effective in reducing both fibroids size and symptoms, producing long-lasting results.

FC-87

Novasure Impedance Controlled System for Endometrial Ablation. Five-year follow-up on 107 patients.

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Study Objective: Assess the safety, efficacy and data durability of the NovaSure endometrial ablation system at five years after the procedure in women with severe menorrhagia secondary to DUB.
Study Design: A prospective, single-arm, pilot study of 107 women undergoing endometrial ablation using the NovaSure system (Canadian Task force classification II-1).
Setting: Specialized centre for gynaecological endoscopy.
Patients: 107 pre-menopausal women with menorrhagia secondary to DUB unresponsive to medical therapy, who had completed childbearing.
Interventions: Endometrial ablation using the NovaSure System.
Methods: The NovaSure System was used to treat 107 patients. PBAC diary sampling was used to conduct post-treatment evaluation of menstrual blood loss and bleeding pattern. Ablation was performed without any type of endometrial pre-treatment.
Results: No intra-operative or postoperative complications were observed. Treatment time averaged 94 seconds. At five-year follow-up, amenorrhea was reported by 75% of patients, successful reduction of bleeding was achieved in 98% of patients, with hysterectomy and re-treatment rates being 2.9% and 3.8% respectively.
Conclusions: Long-term clinical results indicate that the NovaSure System is a safe and effective method for treatment of women with menorrhagia secondary to DUB. NovaSure yields high amenorrhea and success rates with low surgical re-intervention rate at five years post treatment.

FC-88

Quality of life after five year follow-up of a RCT comparing novasure and thermachoice endometrial Ablation

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Introduction: To evaluate the five year follow-up quality of life associated with the NovaSure procedure in comparison with ThermaChoice balloon ablation.
Methods: Double blind randomised controlled trial, 2:1 randomisation NovaSure versus ThermaChoice. A total of 126 pre-menopausal women, suffering from menorrhagia (PBLAC $\geq$ 150), were included. 83 patients were allocated in the NovaSure Bipolair radiofrequency ablation group and 43 patients in the ThermaChoice balloon ablation group. The NovaSure System consists of a 3-Dimensional Bipolar Device and RF Controller that enables endometrial ablation in +/- 90 seconds without the need for endometrial pre-treatment. ThermaChoice consists of a latex balloon with a thermistor.
Results: PBAC and surgical interventions were evaluated at 5 years. Quality of life evaluation was assessed 12 months and five years after the treatment. Patients were asked to complete HRQoL questionnaires at baseline, two days, two weeks, three months, six months, and 12 months after surgery. The questionnaires contained the medical outcomes study Short-Form 36 (SF-36), the Self-rating Depression Scale, the Rotterdam Symptom Checklist, State-Trait Anxiety Inventory and a structured clinical history questionnaire.
HRQoL improved significantly over time in both groups. None of the dimensions showed a significant difference between both groups, neither was there a significant interaction between time and treatment effect. At 12 months follow-up the amenorrhea rate in the NovaSure arm was 56% compared to 8% in the ThermaChoice arm. At five years follow-up, 80% of the women respond to the follow-up, 85% in the NovaSure arm and 72% in the ThermaChoice arm. Amenorrhea was reported in 40% in the Novasure arm and in 29% in the balloon arm.
Discussion: Both methods significantly improved HRQoL in women with dysfunctional uterine bleeding. However, despite re-intervention rates after bipolar radio frequency ablation, there was no difference in HRQoL between the two groups.

FC-89

Laparoscopic myomectomy. Surgical anatomy based technique

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Introduction: Retrospective study of more than 700 laparoscopic myomectomies performed using a surgical anatomy based technique.
Methods: A 10 mm umbilical trocar and only two ancillary trocars (5 mm and 10 mm) were inserted in all cases. No pre-operative GnRH agonists, or intra-operative vasoconstrictor uterine injections were used. Surgical anatomy rationale was based on a vascular architectural optical microscopy-demonstrated pseudocapsule, which surrounds myomas. Myomas lack a single vascular pedicle and are anchored by several small fibrovascular bridges to the myometrial pseudocapsule. Blunt dissection of these connections inside the pseudocapsule dramatically minimizes blood loss and allows complete enucleation of the myoma. Uterine incision is carried out until myoma is exposed enough to be grasped by a laparoscopic Collins forceps in order to apply traction. Countertraction is achieved using an uterine manipulator with exposure of the cleavage plane and of the pseudocapsule fibrous bridges which are dissected by a harmonic scalpel or mechanical traction. Closure of incision is performed in multiple layers with Monocryl extracorporeally-tied interrupted suture. The myoma is then removed by morcellation.
Results: We removed 1298 myomas laparoscopically in 703 patients. Mean number of myomas removed/patient was 1.85±1.37 (range 1–8); 201 women (28.7%) had multiple myomectomy. The largest myoma removed was 17 cm. Mean operating time was 103±39 minutes (range 68–197 min.). Mean Hb decrease was 1.4± 1.2 g/dl. One patient received a blood transfusion, one developed postoperative fever and five needed laparoconversion. One patient had left

epigastric vessels injury which was successfully managed laparoscopically. Mean lenght of stay was 2.9±1.4 days. Discussion: Laparoscopic myomectomy provides a minimally invasive alternative to laparotomy for the removal of intramural and subserosal myomas Advances in endoscopic surgery have improved the feasibility and safety of this procedure which involves no particular risk of short term complications and offers encouraging results in terms of fertility, complication rate and remission of symptoms.

FC-90

Reproductive outcome after laparoscopic myomectomy versus abdominal myomectomy

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Introduction:
Uterine leiomyomata are the commonest neoplasm of the female reproductive system in the procreative age. The role of uterine fibroids in infertility is significance. The aim of this study was to evaluate the effect of laparoscopic or abdominal myomectomy on reproductive and pregnancy outcome.
Methods:
164 laparoscopic myomectomy and 166 abdominal myomectomy were performed in patients for: infertility (17%), previous miscarriage (6.05%), pain (30,3%), abnormal vaginal bleeding (40.6%) and rapid growth of myoma (6.05%). Patients were followed for below 2 years and over 3 years after surgery with registration of spontaneous conceptions and pregnancy outcome.
Results:
In the laparoscopic group 46 pregnancy were observed vs 58 in the open surgery group. Miscarriage occurred in 2 pregnancies in the laparoscopic group vs 4 in the laparotomic. There were no significant differences between groups according to prevalence rate of preterm delivery and way of delivery.
Conclusion:
This study suggests that myomectomy may increase reproductive performance of women presenting with infertility and pregnancy loss before the procedure but type of surgery doesn't improve reproductive outcome between patients with uterine fibroids. The choice of laparoscopic or abdominal myomectomy mainly depends on: site, number and size of leiomyomas.

FC-91

The effect of triple tourniquets on intra-operative bleeding at laparoscopic myomectomy

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Introduction: Excessive bleeding is the major intra-operative complication of myomectomy. Haemostatic techniques at open surgery are well described but surgical options at laparoscopy are limited. We have been using triple tourniquets applied around the uterine and ovarian vessels for some time and wish to report the results of a prospective randomised trial.
Objective: To assess the safety and efficacy of vascular occlusion of the uterine and ovarian arteries on blood loss at laparoscopic myomectomy.
Patients and methods: Women with symptomatic uterine leiomyoma who are judged to be suitable for laparoscopic myomectomy are being recruited from our Fibroid Clinic. Inclusion criteria include a wish to retain fertility, uterine size ≤ 16 weeks equivalent gestation, and a maximum of 3 fibroids for removal with a maximum total diameter 15 cm as assessed by pelvic ultrasound. Women are being randomised to triple tourniquets or no tourniquets. The primary endpoint is intra-operative blood loss and need for transfusion; secondary outcome measures include post operative blood loss, febrile morbidity and other complications, ovarian function, uterine blood flow, and general health. After a literature review, we hypothesized that 75% of our control group and 25% of the tourniquet group would lose more than 150 mls of blood during surgery. For the probability of a type 1 statistical error to be less than 0.05 at a power of 80%, we plan to recruit a total of 28 patients.
Intervention: Patients randomised to triple tourniquets have a number 1-polyglactin suture tied around the cervix to occlude the uterine arteries and sutures tied around the infundibulo-pelvic ligaments to occlude the ovarian vessels. A standard laparoscopic myomectomy is done in all patients using scissors, bipolar electrocoagulation and suturing. The ovarian tourniquets are removed once the uterus had been repaired and before morcellation of the excised fibroids.
Results: We have randomised 9 patients at the time writing. Preliminary analysis of our results shows that surgery after application of triple tourniquets is associated with considerable reduction in operative blood loss and is safe.
Conclusions: Vascular occlusion of the uterine blood supply using triple tourniquets to reduce intra-operative bleeding at laparoscopic myomectomy is feasible in most cases and appears safe and effective.

FC-92

Surgical approach and case selection in Myomectomy

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Study Objectives: To retrospectively analyse the surgical case selection process for laparoscopic or open myomectomy in order to optimize the selection process of the best treatment modality.
Design: Single centre retrospective study. All myomectomies performed laparoscopically or by laparotomy from January 2004 to December 2005.
Setting: University hospital, France.
Patients: 43 women were included in the study. There were 22 laparotomies, mean age 34 (22–43). There were 21 laparoscopic myomectomies, mean age 37 (27–55). Most patients desired fertility in the future (83%), but statistically equal number of patients desired fertility in both groups. The commonest indication for the procedure was menorrhagia (41%).

Measurements: The main parameters influencing surgeon's choice of mode of surgery were the size of fibroids preoperatively, number of fibroids (single vs. multiple), rapid growth and suspected malignancy, strategies to reduce intraoperative blood loss (uterine artery ligation, preoperative uterine artery embolisation) and preoperative use of LHRH analogs. The main outcomes analysed were postoperative haemoglobin drop, length of hospital stay and the weight of the fibroids on histology.
Main Results: In the laparotomy group the fibroids were bigger on clinical examination or by ultrasound, and were predominantly multiple. All patients with rapid growth or suspicion of malignancy were selected for laparotomy. Both groups had similar utilization rates of uterine artery occlusion strategies and of LHRH analogs. Blood loss as reflected by actual haemoglobin drop was similar between the two groups, but the length of stay was 1.9 times longer in the laparotomy group ($p<0.05$), with a mean of 5 days in the laparoscopic group compared to 7 days in the laparotomy group. The mean histological weight in the laparotomy group was 595 grams compared to 121 grams in the laparoscopic group.
Conclusions: Appropriate preoperative patient selection avoids unnecessary conversion of laparoscopy to laparotomy. Information that aides appropriate patient selection is the fibroid size on clinical examination and their number. If the fibroid is more than around 8 cm and especially if they are multiple, surgeons tend to select patients for laparotomy. This decision-making process works well in terms of postoperative blood loss since haemoglobin drop between the two groups is not significantly different.

FC-93

Preoperative ultrasound for uterine leiomyomas: is it trustworthy? A preliminary study

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Objective: To correlate the preoperative ultrasound examination with anatomo-pathological findings with regard to estimating the number and the size of myomata.
Methods: We performed a prospective study on 43 patients (aged 29–73 years, mean 51 years) who underwent surgical operation for uterine leiomyoma between March 2005 and May 2006.Ultrasound scans (US) were performed within 1 day of admission to the operating theatre always by the same experienced operator, using a Siemens Sonoline Antares sonographic scanner equipped with a 7, 5 MHz transvaginal probe. Number and size of myomata at ultrasounds were compared with anatomo-pathological (AP) findings. Patients were divided into three groups, one submitted to hysterectomy, one submitted to laparoscopic myomectomy and another submitted to laparotomic myomectomy. Furthermore, each surgical procedure was performed by the same team.
Results: preliminary results show that there is no significant difference between the number of leiomyomata at US and at AP in the three groups if the number of myomata is less than or equal to six, while a significant difference exists if the number of myomata is more than six (P=0.0269).The analysis of the size of myomata shows that there is no significant difference between US and AP in the laparoscopic and the hysterectomy groups, while there is significant difference in the laparotomic group (P=0.0339).
Conclusion: our data shows that US is a good method to identify the size of myomata in laparoscopy and hysterectomy. The US downstaging in laparotomy is probably attributable to the relaxing of the muscle fibres of myomas after uterine extraction.US is also a good method to evaluate the number of uterine fibroids if they are less than or equal to 6, while it downstages when the number is above 6; is this the cut-off of US for uterine leiomyomas?

TOPIC 11: ENDOMETRIOSIS

FC-94

Limited segmental anterior rectal resection for the treatment of rectovaginal endometriosis: pain, quality of life and complications

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Introduction
This study assesses the long term response, complications and quality of life inpatients undergoing segmental anterior rectal resection for endometriosis.
The setting was a tertiary referral unit for the management of severe endometriosis.
Methods
Case note review and patient questionnaire. The study was a cohort one of all patients who had undergone a segmental anterior rectal resection for endometriosis within five years.
The main outcome measures included: surgical complications and overall subjective improvement. Dysmenorrhoea, dyspareunia, dyschezia and chronic daily pain were measured using a visual analogue scale. Quality of life was assessed using the EQ-5D questionnaire.
Results
21 anterior resections were performed by laparotomy and 24 by laparoscopy.83% of patients felt that their pain was greatly improved or completely resolved. There were two anastomotic leaks. Histology confirmed deep endometriosis in 92% of rectal specimens. Mean Self-rated Health Status was significantly lower in the study group than in the background population.
Conclusions
Segmental anterior rectal resection is a relatively safe procedure for very severe rectovaginal endometriosis. It appears to be a very effective treatment for rectovaginal endometriosis.

FC-95

Segmental colorectal resection in laparoscopic treatment of endometriosis: preliminary results

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Introduction. The incidence of bowel endometriosis is 5,3%–12%, the rectum and the rectosigmoid junction together account for 70% to 93% of all intestinal lesions. Adequate surgical treatment of severe deep endometriosis requires complete excision of all implants but bowel resection is still discussed. We describe preliminary results of our experience, as tertiary referral centre, in complete laparoscopic management of deep pelvic endometriosis with bowel involvement.
Methods. From January 2003 to December 2005, we identified all patients treated in our unit with laparoscopic segmental colorectal resection for deep endometriosis. Inclusion criteria were: clinical and instrumental deep endometriosis with colorectal involvement confirmed by barium enema, severe pelvic pain non responsive to medical therapy or with desire or pregnancy and/or colorectal or ureter stenosis. Data analysis included: age, weight, BMI, previous history of endometriosis, preoperative symptoms, parity, gestation, infertility, operative procedures, operating time, conversion, intra- and postoperative morbidity, recovery of bladder and bowel function, discharge from hospital.
Results. 192 patients underwent laparoscopic resection of endometriosis with segmental colorectal resection. Laparoconversion occurred in 5 (2,6%) cases. Twenty patients underwent transfusion. Major complications that required re-operation occurred in 20 cases (10,4%): 9 (4,7%) anastomosis leakages, 3 (1,6%) ureteral fistulae, 4 (2,1%) haemoperitoneum, 1 (0,5%) pelvic abscess, 1 bowel perforation, 1 intestinal obstruction and 1 sepsis. Median time to resume bowel function was 4 days; 48 (25%) women had urinary retention for more than 3 days, 20 (10,4%) ongoing at the discharge and 9 (4,7%) ongoing at postoperative control after 30 days. Three women had peripheral sensorial disturb and 5 had bowel anastomotic stenosis.
Discussion. Laparoscopic segmental colorectal resection for endometriosis is feasible and can be proposed to selected patients informed on the risk of complications.

FC-96

Laparoscopic treatment of Deep Endometriosis : evolution of surgical approach, complications and Long-term follow-up results of a series of 528 Patients.

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Objective**:** To study the value and long term effectiveness of surgical treatment of deep endometriosis lesions. Setting**:** Departement of Obstetrics and Gynecology, University Hospital. Design & Methods: Five hundred twenty-eight women from 18 to 54 years, underwent to laparoscopy, were included in a retrospective study up to April 1985 to assess quality of life and symptomatic resolution at 6 months, 5 years, 10 years and 20 years follow-up. Laparoscopic Surgical treatment of Deep endometriotic lesions of the Rectum; Sigmoid Bowel, Bladder, Urether and Abdomen was performed. Totally surgical excision of lesion was performed in much more cases. Vaginal Excision was necessary in 205 patients (38,9%) and vaginal suture was performed by vaginal technique in 142 cases.
Results: The mean age was 32,7 years; the mean diameter of lesions was 1,5±1 cm and 45% of patients have previously treated for endometriosis. According to the AFS-R score patients were classified in Minimal stage in 17,2%; Mild in 25%; Moderate in 16,1% and Severe in 41,7% of cases. The recurrence of symptoms occurs in 24,8% of cases. Up 1985 to 2005 surgical technique has been changed from ablation, excision to excision in "reverse technique". However the more aggressive and radical technique has not increase the incidence of severe complications (16%).
Dysmenorrhea was significantly decrease after surgery (p=0.001); similar results were found for Dyspareunia (p=0.001). Long Term results and management are currently investigated to evaluate recurrence of pain, fertility, clinical symptoms and reoperations according to the radicality of excision.
Conclusion: Totally laparoscopic excision of Deep Endometriosis nodules is mandatory to ameliorate the quality of life of patients. A complete surgical treatment is mandatory to decrease number of complications in reoperatives occasions, amelioring the fertility rate. Results will be presented.

FC-97

Pain, quality of life, and complications following ablation of superficial endometriosis using BICAP (ACME™ Medical)

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Introduction
The purpose of the study was to determine the long term response, quality of life and levels of pain following BICAP (bipolar) diathermy of superficial endometriosis. The BICAP device provides narrowly focused bipolar diathermy which may be used in conjunction with suction/irrigation.
Method
A retrospective Cohort study in a tertiary referral centre for the management of advanced endometriosis. The study sample included all patients who had undergone BICAP diathermy between 1999–2004 for superficial endometriosis stage I with no deep disease. These were sent a questionnaire to complete. The main out come measures included pain, time off work, dysmenorrheoa, dysparenuria, dyschezia where measured using a visual analogue scale. Quality of life was measured using the ED-5D questionnaire.
Results
117 out of 226 patients responded to a questionnaire.
15% of patients had a complete resolution of pain and the pain was greatly improved in a further 39%; The pain was a little better in 16% and no better or worse in 27%.
The mean number of days off per month pre-operatively was 0.94 and post-operatively was 0.28. The mean self rated health state index (67) was lower than in the background population (82).
Discussion
Ablation of superficial endometriosis with BICAP is an effective treatment for the disease. Surgery was associated with a reduction in the time absent from work. The results are comparable with those obtained by the use of laser.

FC-98

The role of proteinases and proteinase inhibitors in the evolution and clinical presentation of ovarian endometriosis

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Objective: To investigate the role of several proteinases and their tissue inhibitors in the evolution and clinical presentation of ovarian endometriosis.
Design and Methods: We included in this study patients with ovarian endometriomas who were treated in our Institution with laparoscopic surgery. All cases were staged according to the American Society of Reproductive Medicine (ASRM) staging system. Tissue samples were stained immuno-histochemically to study the expression of the matrix metalloproteinases (MMP) 1, 2, 3 and 9, their tissue inhibitors (TIMP) 1 and 2, and cathepsin-D (CATH-D). Their expression was correlated to the presence of chronic pelvic pain (CPP), the total ASRM score, and the separate scores for endometriosis, cul de sac obliteration, and adhesions.
Results: We included so far 35 cases with ovarian endometriomas. The mean total ASRM score was 40.80 (range: 24–118). MMP-1, MMP-2, MMP-9, TIMP-1, TIMP-2 and CATH-D were expressed in 58.3%, 58.3%, 66.7%, 55.6%, 41.2% and 55.6% cases, respectively. MMP-3 was not expressed in any of the 35 cases. Total ASRM score was significantly correlated to the expression of CATH-D (p=0.031), and cul de sac obliteration was significantly more common in cases who showed expression of MMP-9 (p=0.018). The symptom of CPP was significantly correlated to the lack of expression of TIMP1, and TIMP2 (p=0.051, and p=0.024, respectively).
Conclusions: Proteinases, and in particular MMP-9 and cathepsin-D, and their tissue inhibitors TIMP-1 and TIMP-2, appear to contribute in the evolution of endometriosis and the development of CPP.

FC-99

Cervical Endometriosis- A Case Series.

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Objective: To evaluate cervical endometriosis as a source of abnormal cells in cervical smears.
Study design: Documented histological cases of cervical endometriosis with concurrent cervical smears were reviewed in the last year.
Results: There were 11 cases of cervical endometriosis. Age ranged from 23 to 56. All patients presented with abnormal cervical cytology, 1 had history of persistent postcoital bleeding. Smear abnormalities included: 2 borderline, 4 mild, 3 severe, 1 recurrent inadequate and only 1 had borderline glandular dyskaryosis.
5 cases had previous loop conization for cervical intraepithelial neoplasia (CIN).
Colposcopic findings were:
3 cases of CIN, 5 patients with unsatisfactory colposcopy, in 1 case the initial loop histology was inconclusive and a cone biopsy confirmed endometriosis. 1 had concurrent high grade CIN and 1 with scarring.
Conclusion: Endometriosis may be challenging when identified on cervical smears leading to an incorrect interpretation of CIN or CGIN. While cervical endometriosis has been reported to be a diagnostic pitfall of glandular abnormalities, its characteristic features are still not well established. In our series only 1 out of 11 cases reported glandular abnormality. 5 of our patients had previous loop biopsies. Awareness of cervical endometriosis, particularly in patients with previous cervical insult, is crucial for a correct diagnosis. Physicians monitoring patients after treatment for CIN need to be aware that endometriosis may be the source of atypical glandular cells and may be subject to misinterpretation. Published series and our own experience suggest that these smears will continue to present diagnostic difficulties.
We are still collecting data on cervical endometrisois in the last 3 years and will present the same.

FC-100

The development of a qualitative indicator of pelvic pain (QuIPP) for identifying and classifying endometriosis related pain

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Objective
Chronic pelvic pain affects around 24% of women of reproductive age, with approximately 8–10% being diagnosed with endometriosis. Diagnosis of endometriosis and identification of disease severity is important in order that treatments can be administered by appropriately skilled specialists. Severity of pain, however, has been shown to be unrelated to presence of or stage of endometriosis. The purpose of this study is to see whether qualitative descriptions of pain, i.e. cramping, aching, stabbing, twisting, could be used to distinguish between presence or severity of endometriosis and other causes of pelvic pain.
Design & Methods
A preliminary study of 32 randomly selected patients presenting to a pelvic pain clinic were interviewed in depth, to explore the nature of their pain. They were also asked to illustrate their pain using a female anatomical pictogram. Following laparoscopic diagnosis, these accounts and illustrations were used to design the Qualitative Indicator of Pelvic Pain (QuIPP). This measure was then administered to a further sample of women prior to diagnostic laparoscopy.
Results
Pain descriptions related to the presence of; 1) extra-uterine pathology; 2) uterine pathology; 3) rectovaginal endometriosis; or 4) endometrioma. For example, women with extra-uterine pathology, in particular, superficial endometriosis, reported episodes of sudden, stabbing, shooting pains, whereas women with uterine pathology such as adenomyosis reported aching, constant pain, radiating down the outside of the thighs. Illustrations on the anatomical pictograms also appeared to relate to presence and type of pain.

Conclusions
This preliminary study suggests that, along with other 'soft' markers, it may be possible to identify the presence and severity of endometriosis and therefore decide upon the most appropriate treatment prior to surgical intervention.

FC-101

Over 1000 patients with early stage endometriosis treated with the Helica Thermal Coagulator (Helica): safety aspects

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The Helica Thermal Coagulator (Helica) is an instrument that combines low-pressure helium gas with low-voltage electrical energy for the laparoscopic treatment of endometriosis. It was introduced into clinical practice in 1993 & to date 14,000 probes have been used in the U.K. This study reports the safety aspects of the Helica & combines the prospective data from the first 250 patients treated at The Princess Royal University Hospital with a retrospective review of a further 810 patients treated by the authors in three different hospitals.
Between March 2001 & April 2005, 1060 women with laparoscopically proven endometriosis (stage I & stage II) were treated with the Helica. The patients were all treated by the team of 4 consultants working in 3 hospitals. All patients were treated in a standardised way using appropriate power setting to destroy the endometriosis.
No major complications occurred in the patients treated with the standard probe. One patient had a vaginal perforation from the cutting probe. No bladder, ureteric or bowel injuries occurred despite the probe being used routinely around these structures.
When seen for follow-up 3 months after surgery no further major complications were reported. In the first cohort series of 250 patients 71% had obtained symptomatic improvement.

FC-102

Correlation between the levels of CA-125 and the severity and clinical presentation of endometriosis

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Objective: To investigate the correlation between the levels of CA-125 and the severity and clinical presentation of endometriosis.
Design and Methods: We included in this study patients with endometriosis who were treated in our Institution with laparoscopic surgery. CA-125 levels were measured preoperatively, and all cases were staged according to the American Society of Reproductive Medicine (ASRM) staging system. The preoperative levels of CA-125 were correlated to the presence of chronic pelvic pain (CPP), the total ASRM score, and the separate scores for endometriosis, cul de sac obliteration, and adhesions.
Results: We included 76 cases with endometriosis. The mean levels of CA-125 were 62.3 IU/mL (range: 4–459). The mean total ASRM score was 38.98 (range: 6–118). CA-125 levels had a positive, though not statistically significant, correlation to the total ASRM score, and the separate scores for endometriosis and adhesions. High levels of CA-125 were also positively correlated to the degree of obliteration of the cul de sac (p=0.074). CA-125 levels were significantly correlated to the presence of CPP (p=0.047).
Conclusions: CA-125 levels correlate positively to the severity of endometriosis and pelvic adhesions, but this relation is not statistically significant. Levels of CA-125 are found significantly higher in patients complaining of CPP.

TOPIC 12: HYSTEROSCOPY

FC-103

The importance of performing endometrial biopsy during hysteroscopic polyp resection to improve the early diagnosis of precancerous lesions

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Introduction: the purpose of this study was to characterize women with endometrial polyps and to evaluate the efficacy of associated hysteroscopic endometrial biopsy.
Methods: A retrospective study was conducted from January 2003 to February 2006. 687 consecutive patients with endometrial polyps, diagnosed by hysteroscopy, underwent hysteroscopic polypectomy and multiple biopsies of normal appearing endometrium using electrosurgery. A number of clinical characteristics and known risk factors for endometrial cancer and premalignant polyps were evaluated, including age, menopausal status, parity, diabetes, hypertension, presence of abnormal uterine bleeding (AUB), use of tamoxifen, or hormone replacement therapy (HRT), number and dimension of polyps. All continuous data are expressed in terms of mean and SD. Statistical analysis was performed using the Mann Whitney test or the Kruskal-Wallis test and the Pearson χ^2 test was calculated where appropriate. For all tests, a probability value of <0,05 was considered significant.
Results: 677 histological specimens were eligible for histopathologic examination and were included in the study group. Their examination revealed 629 (92,9%) benign polyps and normal negative endometrium. Histologic evidence showed hyperplasia in 39 (5,7%) cases and 9 (1,3%) case of cancer inside polyps and/or endometrium. Patient age >45 years was a statistical characteristic that was associated with premalignant and malignant histopathological findings. Histological analysis revealed positive endometrial specimens (atypical hyperplasia or cancer) in patients with benign polyps in 17 cases (2,5%).
Discussion: Our data show a relevant rate of premalignant and malignant endometrial pathology in women with intrauterine polyps and the patient age as a statistically significant associated feature. Moreover, an histological evaluation of endometrium by hysteroscopic biopsy is a feasible and safe procedure to detect premalignant and malignant endometrial pathology in women older than 45 years with intrauterine polyps.

FC-104

Intra-uterine adhesions: the value of hysteroscopy validated by a clinical study

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Hysteroscopy has gained an important place in the management of intrauterine adhesions. In our department, we promote its' use as a diagnostic and therapeutic tool, and this retrospective study intends to evaluate this attitude.
Material and methods: This study refers to the patients diagnosed with uterine synecchiae in the Elena Doamna Hospital of Obstetrics and Gynecology of Iasi-Romania, during 3 years (2003–2005). We discussed age, clinical diagnostic, type and extension of adhesions, and also therapeutic gestures. The follow-up of 6 months evaluated the results and outcomes in terms of symptoms.
Results: In our service, 78 cases of uterine adhesions have been diagnosed and treated in the mentioned period. The median age was 32 (CI95=34.2+/−1.7). The presenting diagnostic was: supposed synecchiae (44%), irregular cycles (19%), amenorrhea (16%), infertility (15%) and fibroid (6%). The adhesion extension was: <1/3 of cavity (56%), between 1/3–2/3 of cavity (33%) and complete (11%). The tubal ostia were obstructed bilaterally in 25%, and unilaterally in 28%. The therapeutic excision (mechanical in most cases) was tempted in 61%, and evaluated by clinical evolution and hysterography as favourable (normal cycles, normal shaped uterine cavity) in 91% and 70% of cases, respectively. At the follow-up, 5 pregnancies were noted, representing 41% of infertile cases.
In conclusion, hysteroscopy has proven a valuable method in uterine synecchiae, and, although operator dependent in severe cases, should be included in all endoscopic training programs.

FC-105

Essure system TM: leader in personal satisfaction and tolerance of female sterilization. (Experience of 1700 women)

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Objectives: We want to test women satisfaction and tolerance with the method and to analize the rate of success of insertion and complications.
Design & methods: We use ESSURE™ in 1700 women (from january 2003) who demand permanent sterilization, have a normal gynecological physical exam and sonography, and a negative pap smear. When we explain the written consent, we emphasized on the irreversibility and the very high, but not infallible, effectivity.
We recommend to all women to use oral contraceptive during at least one month. We pretreat orally the patient with ibuprofen and benzodiacepine. During the procedure we reserve paracervical anesthesia to medical indications.
The devices are inserted with a vaginoscopic aproach. For the expansion, we follow the procedure recommended by Conceptus Company.
As a post-procedure control, women are recommended to use a contraceptives until a simple pelvic X-ray is realized, at least 3 months after the insertion. An hysterosalpigogram is done if the insertion was incorrect, was only posible in one tube or when the radiology was not clear. At the 3-month control we also enquiry about the tolerance, the time to recover the normal activity, the best and the worst aspects of the procedure and the personal satisfaction with it.
Results: The rate of success of insertion of ESSURE™ System was 99%. The procedure was well tolerated, as 85.1% of women considered it none or scarcely painful and only 3.4% felt pain. There were no complications during the insertions. The vast majority of women (83.3%) returned to their daily activity the same day of insertion. Only 7.5% need any oral analgesic for one or two days.
Asked about satisfaction (graded one to ten), 91.2% puntuated the method with 10, 6.2% with a nine and the lower puntuation was 8 (2.6%). The most valuable aspect of the procedure was the absence of surgery room (55%), quickness and confort (19%) and permanent sterilization (17%). More than half women (54%) said there were nothing unpleasent related with the method and 98% have already recommend it. At this moment of the follow-up we have not any pregnancy.
Conclusion: Due to the high rate of success of insertion, excelent tolerance, absence of complications and the very high grade of satisfaction, ESSURE™ System represent the future of female sterilization.

FC-106

The diagnostic accuracy of endometrial thickness to exclude polyps in women with postmenopausal bleeding

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Objective: Transvaginal sonography is used as a first step in the diagnostic work-up of women with postmenopausal bleeding, and measurement of endometrial thickness results in stratification of women in a low versus high probability for endometrial carcinoma. Histology sampling is needed to rule out malignancy in women with a high probability. This study was set to determine the diagnostic accuracy of sonographic endometrial thickness measurement in the diagnosis of endometrial polyps in women with postmenopausal bleeding in whom a carcinoma has been ruled out.
Design and Methods: This study was set in a university-affiliated teaching hospital, with office hysteroscopy facilities. We included women with postmenopausal bleeding and an endometrial thickness >4 mm at sonography in whom endometrial carcinoma had been ruled out. Endometrial thickness was measured with transvaginal sonography and in case of endometrial thickness >4 mm patients underwent office hysteroscopy to evaluate the uterine cavity.

Results: We included 216 patients. Hysteroscopy showed an endometrial polyp in 106 patients (46%) and an endocervical polyp in 22 patients (10%). We used ROC analyses to assess the capacity of endometrial thickness to diagnose endometrial polyps. ROC analyses showed an area under the curve of 0.64.
Conclusion: In women with postmenopausal bleeding in whom carcinoma has been ruled out, measurement of endometrial thickness has no use to diagnose endometrial polyps. This study showed that with respect to benign disease no cut-off level could be found above which hysteroscopy is warranted because of high probability of endometrial polyps.

FC-107

Results of IVF/ET before and after hysteroscopic resection of a small uterine septum

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Introduction: The data are needed to determine whether arcuate uterus should remain in classification of abnormal uterine malformations or is a variant of normal anatomy. Recently we generated data showing that hysteroscopic resection of small uterine septum (AFS 6) significantly reduces the risk of preterm birth and spontaneous abortion. The AFS grade 6 anomalies were also associated with lower implantation rates and higher abortion rates in IVF. In order to further test these findings we analysed the IVF/ICSI results in a larger series of patients.
Patients and methods: The results of IVF /ICSI cycles in women before and after hysteroscopic resection in small AFS 6 uterine anomalies and large AFS 5 uterine anomalies were evaluated . Nine hundred and ten embryo transfers (ETs) in GnRH agonists or antagonists & gonadotropin stimulated IVF/ICSI cycles before and after hysteroscopic metroplasty in larger (AFS grade 5) and in smaller (AFS grade 6) uterine septa were analysed and compared. Differences were assessed by Chi square test. The significance was set at 5%.
Results: The results confirmed the hypothesis. There were 124 ETs before and 310 ETs after resection of AFS grade 5 uterine septa and 186 ETs before and 290 ETs after resection of AFS 6 uterine septa. The pregnancy/ET after surgery in women with AFS 5 septa rate increased from 14% to 26% and the abortion rate decreased from 72% to 22%($P<0,001$). The pregnancy /ET rate after surgery in women with the AFS 6 septa increased from 14% to 29% and the abortion rate decreased from 69% to 19% ($P<0,001$).
Conclusion: The results achieved evidently show the negative impact of AFS grade 6 uterine septum on the implantation of embryos transferred as well as on the occurrence of spontaneous abortion if pregnancy was achieved. The implantation rate and abortion rate significantly improves after hysteroscopic resection of both AFS 5 and AFS 6 uterine septae. The small AFS grade 6 uterine septum should therefore not be considered a variant of normal anatomy and should be treated before IVF is attempted.

FC-108

Study on safety of transcervical resection of big intracavitary fibroids analysis of 70 cases

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Introduction To evaluate the safety and feasibility of big (>3 cm) intracavitary fibroids treated by transcervical resection of myoma (TCRM).
Methods Thirty cases of big intracavitary fibroids were pretreated with GnRH agonists 1 4 agents. Cervical priming was done by cervical dilator at evening before surgery. TCRM was performed by five steps: resection, grasp, twist, drawing and delivery. Surgery was monitored by B ultrasound and/or laparoscopy routinely.Serum Na^+, K^+,CL^-,blood sugar and osmolality of venous blood was inspected and calculated. Clinical symptom and signs were observed.
Results The successful rate of one-stage was 97.14%. The mean diameter of fibroids was 4.91±1.26 cm (>3–7.5 cm). The mean weight of fibroids was 31.23±18.12 gm (11–182 gm). The mean operating time was 30.62±12.1 min (5–60 min). Intraoperative bleeding was 5–1500 ml, Bleeding 1500 ml was encountered in uterine perforation. Of 17 cases postoperative serum Na^+,K^+ concentration decreased and blood sugar level elevated, compared with preoperative level the differences were significantly. Complications were temporary fever 4 cases, uterine perforation 1 case and mild hyponatraemia 2 cases.
Conclusion TCRM is a mini-invasive, safe and availability therapy for big intracavitary fibroids. Pretreatment with GnRH-a and cervical priming, B ultrasonography and/or laparoscopy monitoring, serum biochemical inspection, Furosemide 20 mg injected intravenously when surgery lasted 30 min were the main measure to prevent hyponatraemia.

FC-109

Feasibility Of Essure™ Placement in IUD Users

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Introduction
To assess the feasibility of the Essure procedure in intrauterine device (IUD) users. Although the aim was to try the first attempt with IUD in place, the success rate included placements either at a first or at an immediate second try after IUD removal. Differences were looked for between Multiload and “T-shaped” IUDs.
Methods
During a four-year period, 11 intrauterine device (IUD) users were registered among 660 women who asked for the Essure procedure. A first attempt without previous IUD removal was offered. Difficulties were explained and all patients signed a written consent. All attempts were performed through vaginohysteroscopy and with no anesthesia in the office.

Results
Uneventful, successful bilateral placement took place in seven patients (63.6%). In one woman (9.0%) unilateral placement was achieved, while the opposite device needed IUD removal to be left in place. In one patient (9.0%) only one device was inserted and, even though IUD was removed, the hysteroscopist was not able to place the contralateral device. In the remaining two patients (18%) one "T-shaped" and one Multiload IUD prevented from initial insertion and had to be removed before a successful bilateral first and second placement respectively.
Three months later X-Ray and ultrasound follow-up were all correct in cases of successful bilateral placement (90.9%). IUDs were removed without any inconvenient in all cases. No complications were registered.
Discussion
Though Essure procedure leaflet advises not to use IUD contraception after device insertion, not only placement is feasible in more than 90% of the cases, but it also allows the same contraceptive method in IUD users for the following three months. Performance and acceptance is similar in IUD users and non-users. If insertion is not possible at first attempt, an immediate second attempt can be successful after IUD removal. "T-shaped" IUDs seem to cause higher difficulties during simultaneous insertion because of their adaptation to tubal ostia.

FC-110

Patient satisfaction among older women undergoing outpatient hysteroscopy for post menopausal bleeding

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Introduction: Many older women investigated for postmenopausal bleeding (PMB) will undergo an outpatient hysteroscopy, either as well as, or as a result of, a pelvic ultrasound scan. The aim of this pilot audit is to study the acceptability of outpatient hysteroscopy in this age group in particular. We aim to analyse patient satisfaction and acceptability of outpatient hysteroscopy in women investigated for postmenopausal bleeding (PMB) compared with women with dysfunctional uterine bleeding (DUB).
Methods: Prospective observational questionnaire audit of consecutive patients attending an outpatient hysteroscopy clinic, for investigation of PMB or DUB exclusively, over a 4 month period. The questionnaires were completed in the immediate recovery period. Visual analogue scores were used to assess acceptability and pain. Questions also addressed whether the patient would have preferred the test to be performed under general anaesthetic.
Results: We recruited 24 women with DUB and 22 with PMB from Feb to May 2006. The response rate was 93.5%, - 43 (21 PMB and 22 DUB) questionnaires were completed. We noted a trend towards higher reported pain levels among women with PMB, as shown in the table below. Despite this trend, surprisingly, none of the PMB patients reported they would have preferred a hysteroscopy under a general anaesthetic, whereas 4/24 women with DUB would have opted for a general anaesthetic.

Pain score	<5	5–7	>7
PMB group	6 (29%)	8 (38%)	7 (33%)
DUB group	9 (41%)	11 (50%)	2 (9%)

Conclusion: Our audit revealed that outpatient hysteroscopy is acceptable among older women investigated for PMB, despite significant pain scores. We will sub-analyse which aspects of the test were associated with pain from our questionnaire. We aim to complete the audit cycle by studying a larger group of women. We will also compare the acceptability of this test with an ultrasound scan in this population.

FC-111

Essure tubal sterilization associated with concomitant operative hysteroscopic procedure: technical specificities and outcome.

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Study objective: Permanent hysteroscopic sterilization with the ESSURE System offers a transvaginal approach similar to the endometrial ablation techniques. Furthermore, the need for contraception is a concern for both patients and their physicians after endometrial ablation, since reported pregnancies after endometrial ablation are complicated by a high risk of abnormal placentation and cesarean hysterectomy. The aim of this study was to assess the feasibility and to describe the technical specificities of hysteroscopic tubal sterilization during associated operative hysteroscopy, and to assess outcomes.
Design: Retrospective study.
Setting: University Hospital (Department of Obstetrics and Gynecology).
Patients: 22 women who have undergone an hysteroscopic tubal sterilization during an associated hysteroscopic procedure.
Interventions: Hysteroscopic tubal sterilization was performed using ESSURE System. Associated procedure included balloon therapy (n=14) (ThermaChoice UTB System, Gynecare), hot circulating saline (n=1)(Hydro ThermAblator HTA System, BEI Medical/ Boston Scientific), endometrial resection using bipolar impedance technology (n=2) (Versapoint System, Gynecare), and microwave (n=3) (NovaSure System, Novacept), resection of endometrial polyp using monopolar technology (n=2). Successful device placement was assessed after 3 months by volume-contrast three-dimensional (3D) ultrasound imaging 3 months after the procedure.
Measurements and main results: Successful bilateral placement was obtained in 19 (86%) patients, and in 3 (14%) the procedure failed (endometrial bleeding at the beginning of the procedure). The Essure procedure has been performed immediately before (n=12/14, 85%) or immediately after (n=2/14, 14%) the ThermaChoice uterine balloon ablation system. It has also been done immediately after-but not immediately before-using the NovaSure radiofrequency ablation system. Volume-contrast (3D) ultrasound showed proper positioning of the coils within the proximal fallopian tube in all women. After 18 woman-months of exposure to intercourse, no pregnancies have been recorded.

Conclusion: The placement of Essure Micro-Insert System is feasible during an associated operative hysteroscopic procedure. This method may be offered to all women undergoing an hysterosocpic operative procedure and who ask for permanent tubal sterilization. The tubal ostia could reliably be found, and the tubes cannulated, after each technique of endometrial ablation.

TOPIC 13: STERILISATION & MISCELLANEOUS

FC-113

New Dutch protocol for the follow-up of Essure sterilization reduces the number of hysterosalpingographies

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Study Objective: This study was undertaken to evaluate a new Dutch protocol including ultrasound and HSG for the follow-up of hysteroscopic sterilization with Essure. The current recommendation in Europe (CE Marking) is to schedule patients for a pelvic X-ray after successful placement, while in the US (FDA), HSG is required. Ultrasound has proven to be a adequate methode for localising the microinserts.
Design: Prospective study.
Setting: Gynaecology outdoors department of a Dutch teaching hospital with office hysteroscopy facilities.
Patients: One hundred women seeking permanent contraception.
Intervention: Hysteroscopic sterilization with Essure system. Microinserts were placed bilaterally into the proximal fallopian tube lumens. Ultrasound examination or HSG was scheduled three months after the procedure. Ultrasound was performed in case of satisfactory successful bilateral placement of Essure system. HSG was performed in case of unilateral placement, incorrect placement, an operation time longer than 15 minutes and in case of prolonged pain after the procedure.
Measurements and Main Results: Bilateral placement of the microinserts was achieved in 94 of 100 women (94%). Unilateral placement was achieved in 2 women, one with unicornuate uterus and one after previous tubectomy (2%). In 4 women with bilateral tubes, bilateral placement was not achieved (4%). In 72 patients with a satisfactory bilateral placement ultrasound detection confirmed cornual localization of both devices. In 22 patients (22%) bilateral tubal occlusion was confirmed by HSG (including two patients with unilateral placement). Two women were found to have some evidence of dye passage (patency). In one of these two a suspected incorrect placement of the micro-insert due to intracavitary abnormality was confirmed.
Conclusion: the new Dutch protocol for the 3-month follow-up of hysteroscopic sterilization with Essure using ultrasound reduces the need for HSG's substantially.

FC-114

The correct positioning of the micro - device Essure

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Objective : The aim of this study was to estimate the correct positioning of the micro - device Essure in two University Departments Trieste and Padua, and in three hospitals Saronno (MI), Florence and Carpi (MO).
Design & Methods : A prospective study was conducted. Use of Essure was suggested to each woman asking for tubal sterilization after they were informed about the technique, benefits, failure rate, irreversibility and procedure complications, and the necessity to verify tubal occlusion by the devices after 3 months by hysterosalpingography and to use contraceptions for the first three months after the procedure.
Exclusion criteria were:

- Women with a positive pregnancy test
- Unsure about their desire to end their fertility
- Uterine, cervical or adnexal pathologies
- Uterine or cervical neoplasia
- Abnormal uterine bleeding
- Chronic pelvic pain, pelvic infiammatory desease
- Previous tubal surgery and monolateral tubal occlusion

The procedure was performed during the proliferative phase of the cycle using a continuous flow hysteroscope 30° lens (Karl Storz®, Tuttlingen, Germany), with an operative channel of 1.8 mm. Uterine distension was obtained using pumped saline solution. The procedure was performed by introducing the hysteroscope without the use of vaginal speculum in to the uterine cavity with the Essure device inserted in the hysteroscope operative channel. After visualization of the proximal tubal ostia the operator placed the Essure device in the intramural part of the tube. At the end of the procedure, the operating time required for the procedure was recorded.Three months after the procedure, all the patients underwent a hysterosalpingography to evaluate tubal occlusion.
Results : 196 patients underwent tubal sterilization using the Essure device.
Mean age was 38. Bilateral micro - insert placement was successfully performed in 89.4% Mean operating time was 19 min (range 5–45). The hysterosalpingography performed 3 months after the procedure confirmed tubal occlusion in 100% The procedure was performed without anaesthesia in 31,5%. There were neither short - nor long - term severe complications.
Conclusions : The introduction of the Essure device resulted in a safe and effective procedure for permanent tubal sterilization. There was only one case of monolateral tubal inserction in which the patient refused a second procedure and asked for laparoscopic approach; in the other cases, patients underwent a second hysteroscopy with successful placement of the device. Althought there were no complications, which may be due to the small sample size, it should be stressed that several authors have reported a risk of malpositioning

and expulsion of the device and a risk of uterine perforation. In conclusion, permanent tubal sterilization with essure system is safe and effective, and it may be performed without the use of general anaesthesia. It is a valid alternative to the surgical approach, which has potential risks related to surgery and anaesthetics. This procedure may be performed in women with high surgical and anaesthesiologic risk.

FC-115

Modern concepts of IT systemintegration and systems of quality assurance within the perinatology including the fetal medicine

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Since the insertion of the [a]Mutterpass´ in germany only a little changes in the documentation of structured data in the perinatolgy have happend. The increasing complex care of pregnant women, which often requires an interdisciplin interacting, should give a cause to think about modern concepts of IT systemintegration and systems of quality assurance within the perinatology. The possibilities of creating networks, for example via the internet, should be taken into consideration. In spite of all resistances it is necessary to think about an advanced electronic concept to create the basis for collecting structured data for scientific use.

Keywords: perinatal documentation

FC-116

How women live their tubal sterilisation: French multicenter study on 586 patients

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Tubal sterilisation has only been legal in France since July 2001. The tubal sterilisation procedure, with the micro-implant Essure, was launched in 2002.
Method: This study shows the results of a French multicenter survey, carried out by 11 public and private centres. 1000 patients received a questionnaire by post in February 2006 on their experience and satisfaction with the Essure procedure. 681 women gave an answer. For some questions, they could give a positive answer to several items.
Preliminary results: Patients' average age was 41. 87. 40% of all procedures were done without anaesthesia, 33% under local anaesthesia and 27% under general anaesthesia or neuroleptanalgesia. Mean parity was 2. 49; 2% of patients were nulliparous and 10% primiparous. 32% of patients had at least 1 IVG. While 20% of patients turned to the Essure procedure to avoid abortion, the majority of them had encountered problems with regular contraceptives or even intolerance to them. The choice of having a tubal sterilisation was a personal decision in 62% of cases, for 33% the decision was taken by the couple and 22% took external advice. Sterilisation had been discussed with the couple in 39% of cases only. The information on the Essure procedure was mostly provided by the gynaecologists; Media was also a good source of information, more so than general practitioners. Even if the request of sterilization was often accepted by the doctor immediately (83%), 8% of patients had to wait a few years, before a doctor accepted to do it. 5% took the decision to have sterilization without any medical advice. 77% of patients (out of 507 answers) who had a local anaesthetic enjoyed following the procedure on the screen, compared with 84% who had no anaesthesia at all. 73% reported moderate or no pain at all, 14% strong pain and 13% didn't answer. 95% of patients had an excellent to good (feeling of liberation) memory of Essure and 5% a bad memory. 94% who did not have a general anaesthetic returned to their domestic activities within 24 hours compared with 80% in the case of general anaesthesia, $p<0.0001$. 79% without general anaesthesia returned to work within 24 hours compared with 55% of those who had a general anaesthetic $p<0.0001$. For 65% of patients sexuality remains the same, for 34% it is better and for 1% it is worse (8 cases).98% of patients would recommend Essure to a friend.Note that 7% of patients didn't do the post-procedure control at 3 months.
Conclusion: In a country where human sterilisation hasn't yet become part of every day life, the Essure procedure is a real step for the women who decide to have a tubal sterilisation. The procedure, without anaesthesia, allows a quick return to a normal life, without changing the patients' real life and also means more saving in terms of cost of health.

FC-117

Experience with the improved lotus shears in gynaecological laparoscopic surgery

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We have previously reported our experience with laparoscopic operating by torsional ultrasound (Lotus) for both adnexal surgery and more advanced procedures such as total laparoscopic hysterectomy.
Recent modifications of the Lotus shears include a curved blade which can rotate through 360°, as well as a completely re-designed handpiece which features finger switches for the control of the ultrasound energy thereby removing the need for foot pedals.
This video demonstration will include a computer generated demonstration of the physics of ultrasound energy, together with comparisons between torsional mode ultrasound which we believe has significant advantages compared with the linear mode which is found in all other ultrasonic cutting devices. The presentation also features video footage of various gynaecological procedures, including adnexal surgery and total laparoscopic hysterectomy.

FC-118

Documentation of consent for laparoscopic procedures
Do doctors adhere to our national guideline? If not, why not?

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Introduction: The aim of this study was to improve documentation of consent for laparoscopic procedures.
Method: We completed an audit cycle. Firstly, we assessed our documentation performance in 25 case-notes randomly selected from our two hospitals in November 2005. This was a retrospective case-note review. Secondly, we presented these findings at a postgraduate education meeting and provided all doctors with a personal copy of the national guideline. Subsequently, we re-audited a further 25 case notes in February 2006. Lastly, we carried out an anonymous questionnaire study of 20 doctors to assess what they subjectively felt should be included/ excluded on a consent form and the reasons for their opinions.
Results: The results our two audits of documentation are shown:

Table 1 Documentation of serious risks on consent forms:

	Bowel injury	Bladder injury	Bl.Vessel injury	Death	Perforate uterus	Failed entry
2005 audit	24 (96%)	23 (92%)	23 (92%)	1 (4%)	3 (12%)	2 (8%)
2006 audit	22 (88%)	21 (84%)	21 (84%)	0	4 (16%)	0

Table 2 Documentation of "frequent" risks and extra procedures:

	Shoulder pain	Bruising	Failure to diagnose	Laparotomy	Repair of damage
2005 audit	1 (4%)	1 (4%)	2 (8%)	23 (92%)	7 (28%)
2006 audit	5 (20%)	4 (16%)	3 (12%)	20 (80%)	7 (28%)

The questionnaire revealed that it was usually a conscious decision not to document the risk of death, as it was "too frightening" for the patient.
Conclusion: Education of the national standard has not improved documentation. There is a role for a pre-printed consent form. The national guideline advice to include the risk of death on a consent form needs to be re-evaluated in the light of future wider research.

FC-119

Biomechanics' properties of pelvic tissues: Help in development of new materials and new POP suspensions' techniques

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The study of the biomechanical properties of the vaginal tissue is a first approach of the elaboration of a mechanical model of the pelvic floor and vaginal cavity. This model could allow understanding better the physiopathology of the pelvic floor defect, to estimate and to improve the new therapeutic strategies.
The objective of this study is to propose a protocol allowing to characterize in a reliable way the biomechanical behaviour of vaginal tissue and by extension of all the pelvic connective tissues. From this protocol, we shall realize a first evaluation of the mechanical characteristics of healthy and pathological tissues.
The study of that mechanical behaviour was realized by uni-axial test in constant speed deformation. The tests were led and followed by means of a video extensometer guaranteeing the local control of the applied constraints. In these conditions, reports constraint / movement were obtained for all tests.
The attempts were realized according to various experimental conditions to define a protocol of study the parameters of which influencing the characteristics of the vaginal tissue are mastered. To validate this protocol, a big quantity of tissue was required, leading us to work on vaginal tissue of ewe.
In a second time, we realized test on vaginal tissue of patients to define its biomechanical behaviour. The pieces of vaginal tissues were taken during surgical treatments of symptomatic prolapse or on cadaver specimen. Our protocol received a favourable opinion of the Consultative Committee of Protection of the Persons in the Biomedical Research (CCPPRB CP 03/81; DRC 0315 in October, 2003).
A reference protocol of biomechanical characterization of vaginal tissue, validated on the animal model of ewe, was finalized. The influence of the conditions of taking of the soft tissue and the realization of the measures was revealing by exhaustive tests. Our protocol of measure allows us to realize reproductive attempts and obtaining laws of behaviour of connective and soft tissues applicable to the mechanical model of vaginal cavity in quality of properties of pelvic tissues. Mechanical attempts noticed them and analyses allowed to put in evidence, for the first time in the literature, the nature visco-hyperélastic and anisotropic of vaginal tissue. This important observation must be taken into account in the development and the preparation of prosthetic implant and in the settling and the evaluation of new suspension techniques.
The biomechanical study of the behavior of the pathological and holy vaginal tissue allows approaching the physiopathology of pelvic floor defect and arguing the choice of new surgical strategies using prostheses in replacement of fascias. The knowledge of the laws of behaviour of the tissues will allow the development of materials and techniques of suspensions well adapted in the conditions of constraints of the vaginal cavity.

FC-120

Scarfì Bipolar Scissors

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Introduction: Since the beginning of the eighties alternative surgical devices (laser ultrasonic wave devices) to the automatically controlled high-frequency surgical units have been developed.
The design of the bipolar scissors with "up and down" closing mechanism has been developed with Karl Storz-Tuttlingen (Germany) and is already patented.
A sliding tube is used as a mechanism for closing the two scissor blades. The bipolar scissors are not insulated with a plastic or ceramic coating between the actual blade surfaces. Despite this fact, closing the blades does not cause a short circuit! The reason for this lies in the clever design: When open, the scissor blades do not come into contact with one another. When the scissor blades are closed, a narrow space remains between the two blades along their entire length beyond the point of compression. When the scissors are fully

closed, the blades only meet at the tip. The scissor blades do not come into contact with each other at the fulcrum of the scissors either, as this part is made of non-conductive material.Bipolar HF coagulation techniques - "Open scissors". The bipolar scissors feature all the functions of a pair of scissors, while also being able to perform the familiar techniques of 1. contact coagulation and 2. puncture coagulation. 3. "To-ride" coagulation technique "To-ride" is a coagulation technique that can augment the above-mentioned coagulation techniques. In this technique, the tissue is initially not cut, but merely placed between the two open, blunt blades to allow the HF current to flow. Cutting technique: the tissue is cut when the blades are compressed after electrosurgical application. There is no changing of instruments, and this reduces operating time.
Summary: The scissor blades are slightly curved, approx. 10 mm long and made from conductive material. The surgeon can perform all conservative, reconstructive and even ablative gynecological interventions at a minimum wattage of 30–40 W.

FC-121

Prospective review of complications of Intermediate and Advanced Laparoscopic surgery in a District General Hospital in UK

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Objectives:
To evaluate the incidence of significant complications of intermediate and advanced laparoscopic surgery in a district general hospital setting in the UK.
Setting:
The procedures were carried out either by a trained laparoscopic surgeon or a trainee under direct supervision. A laparoscopic colorectal surgeon is available where necessary.
Design and methods:
A prospective database is maintained for all intermediate and advanced laparoscopic surgeries. The data was analysed for intra-operative and postoperative complication rates. Mean hospital stay was calculated for all patients.
Results:
One hundred and sixty five cases were performed between April 2004 and March 2006 (24 months). Diagnostic laparoscopies and simple laparoscopic procedures such as sterilisation and laparoscopic salpingectomies for ectopic pregnancies were excluded. Twelve patients had pelvic clearance surgery performed for grade III–IV Endometriosis. The procedure was converted to laparotomy in two patients due to difficult access. There were no morbidity related complications encountered in these patients. The other patients were a mix of procedures such as oophorectomies, ovarian cystectomies, LAVH and adhesiolysis etc. Two patients (1.2%) had significant complications. One patient had bowel injury inadvertently during adhesiolysis. The bowel injury was repaired with primary suturing through the laparoscopic approach. The other patient developed paralytic ileus following laparoscopic adhesiolysis and was managed conservatively as inpatient for 5 days. The hospital inpatient stay ranged between 0–5 days with the majority of patients being discharged within 24 hours of surgery. There were no other cases of haemorrhage or visceral injury encountered.
Conclusion:
Advanced laparoscopic surgery is feasible and could be carried out in district general hospitals if the expertise is available locally. All centres must audit their own practice and assess morbidity and complication rates. The complication rate noted in our unit was 1.2%. The published data range widely in the quoted complication rates. Complication rate depends on the surgical expertise and the case mix. It is essential that a national database, such as the one planned by the BSGE on endometriosis, is set up to assess complication rates for all forms of laparoscopic surgery. This would in turn help in setting up auditable national standards for laparoscopic surgery.

FC-122

Torsion of normal adnexa in post-pubertal women is associated with a significant recurrence rate: Possible role for preventive oophoropexy

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Introduction: The purpose of this study was to compare the incidence of recurrent torsion of normal compared to abnormal adnexa in pubertal women and question current patient management.
Methods: Sixty eight patients with surgically confirmed adnexal torsion operated in our department from January 2002 to April 2006 were retrospectively analyzed.
Results: The torsion recurrence rate was 58.3% (7 out of 12) in the group of patients with twisted normal adnexa, compared with 8% (4 out of 50) in the group of patients with twisted pathologic adnexa ($p<0.01$). Recurrent torsion of normal adnexa involved the ipsilateral side (n=4, 57.1%) as well as the contra lateral side (n=3, n=42.9%). The group of patients with twisted normal adnexa was characterized by a younger mean age (25.5±7.9 years vs. 31.4±11.4 years, $p=0.04$) and lower mean parity (0.33 vs. 1.1, $p=0.02$). The clinical presentation (i.e., abdominal pain, nausea/vomiting, fever) of patients with twisted normal adnexa compared with twisted abnormal adnexa was similar, as was an elevated white blood cell count of >11,000 cell/ml (26.7% vs. 33.9% respectively, $p=0.7$), and the mean time from admission to surgery (18.2 hours vs. 17.5 hours respectively, $p=0.9$).
Conclusion: The current adnexa sparing laparoscopic management of adnexal torsion by simply untwisting them may predispose to recurrent torsion of the adnexa. Oophoropexy procedures may prevent further torsion events and should be considered in patients with twisted normal adnexa.

TOPIC 14 : MISCELLANEOUS

FC-123

Biomechanical properties and tissue tolerance study of synthetic mesh implanted in vivo

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Aim of the study : To assess on an animal model the mechanical properties and tissue tolerance of five prostheses used on pelvic floor repair.
Material and method : Two months after preperitoneal implantation of five types of prostheses : Prolène®, Prolène Soft®, Mersuture®, Vicryl®, and Vypro®, we sacrificed the animals to measure retraction of the prosthesis, maximal resistance to traction and maximal elongation. Semi quantitative histological study estimated tissue inflammation and collagen formation.
Results : Non absorbable prostheses retracted least. Forces at rupture were disparate with yet a significant difference in favor of Prolène® ($p < 0.001$). Resistance was variably affected by cicatrisation. There was no significant difference in elongation. Absorbable prostheses and polypropylene ones gave the least inflammation. Polypropylene ones integrated best in tissues with better organization of collagen fibers.
Conclusion : This study is a first exploration. Monofilament and macroporous propylene prostheses seem, after implantation, to have the best mechanical performances, the best tolerance and tissue integration. This underlines the need of experimenting prostheses that are increasingly used but still lack the large evaluation needed by the surgeon. Knitted polypropylene seems to be one of the best at present.

FC-124

Menses, fertility and obstetric outcomes after uterine artery embolisation for severe obstetric haemorrhage

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Objectives: To evaluate the long-term effects of uterine artery embolisation for severe obstetric haemorrhage on menses, fertility and subsequent pregnancies' outcome.
Methods: A cohort of 19 women who underwent uterine artery embolisation for severe postpartum haemorrhage in our hospital was studied with retrospective analysis of the notes.
Results: All women had a return on normal menses and none reported signs of early menopause. A total of 10 pregnancies in seven women were studied. The mean age was 27 years. The time range from the embolisation to pregnancy was from 7 months to 4 years. There was one first trimester miscarriage and one ectopic pregnancy. In their first antenatal visit, all women were offered and accepted an elective caesarean section at term due to their previous traumatic delivery. Four pregnancies were uneventful until term and the women delivered by elective caesarean section. Two women had an elective caesarean at 36 weeks, one due to maternal Addison's disease and the other due to placenta praevia; the latter had a placenta praevia in the index pregnancy that led to embolisation. One complicated case had uterine artery embolisation after extensive cervical tears and uterine perforation during termination of pregnancy. This woman fell pregnant twice; the first pregnancy ended with an emergency caesarean at 32 weeks due to premature labour and fetal distress; the second at 27 weeks, again due to premature labour. No case of preeclampsia was observed. Growth scans showed normal fetal growth and umbilical artery dopplers. All full-term newborns were healthy weighing from 3400 to 3900 gm. Apart from the case of placenta praevia were the estimated blood loss was 1 lt, no recurrence of the postpartum haemorrhage was observed.
Conclusions: Women that undergo uterine artery embolisation for obstetric haemorrhage can expect a swift return to normal menses and fertility. Apart from an increase in the caesarean section rate that was patients' choice in our study, there appears to be no major excess obstetric associated risk that can be attributed to the procedure.

FC-125

The treatment of dysfunctional uterine bleeding (DUB) with the Mirena IUS™ and HydroThermal Ablation (HTA): a comparative survival analysis.

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Objective: To i) compare the treatment of DUB with the Mirena IUS™ and HTA and ii) to demonstrate the projected effectiveness over a 5 year period.
Methods: A questionnaire was sent to 245 women with DUB who had been treated in a "one stop" abnormal bleeding clinic. Patients were asked to record information about their current menstrual status, whether or not they had had further treatment, and the reasons. The projected Kaplan-Meier survival rate was calculated for each treatment group.
Results: There was a 69.5 % response rate. Of the women who were treated with the Mirena IUS™, 72% rated the treatment a successes. The amenorrhoea rate was 38%. The device was removed prematurely in (18/88) 21% of patients. In the HTA group 82% rated the treatment a successes. The amenorrhoea rate was 43%. A hysterectomy was carried out for treatment failure in (7/82) 8.5% of patients. The main reasons for treatment failure in both groups were pelvic pain and / or irregular vaginal bleeding. The projected Kaplan-Meier survival rate for the Mirena IUS™ device or HTA over a 5-year period was calculated. In the Mirena IUS group this was 55%, while it was 89% in the HTA group.
Conclusion: The Mirena IUCD™ and HTA are effective form of treatment for DUB and the majority of women are likely to avoid further intervention at 5 years.

FC-126

The use of a proforma improves the documentation of diagnostic laparoscopies

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Objective: To determine whether the clinical information recorded improves and meets required standards using a customised laparoscopy record form for diagnostic laparoscopies.
Methods: Sixty women that underwent a diagnostic laparoscopy had their case notes analysed. Thirty retrospectively, prior to the introduction of the laparoscopy proforma and thirty, prospectively, three month after the introduction of the proforma. We examined the general criteria recorded, including documentation of patient details, operation date, indication, verres needle insertion point, safety tests,

insufflation pressure, number/site of ports, use of diagram and photos and management plan, as well as the operation findings that were recorded with reference to the uterus, adnexae, ovaries, uterosacral ligaments, U-V fold, broad ligament, ovarian fossae, appendix, ascending/descending colon, rectum and liver.
Results: The results clearly indicated that there was a significant improvement in nearly all areas of documentation using the proforma. The recording of 23 of the 25 factors analysed increased. This was statistically significant in 15 of the assessed criteria. This included verres needle insertion point, safety tests, insufflation pressure, number and position of port sites and 9 of the operation findings namely the uterosacral ligaments, U-V fold, broadligament, ovarian fossae, appendix, ascending/descending colon, rectum and liver. The documentation increased to 100% in nearly all cases. The recording of two standards decreased slightly, indication and management plan, suggesting that the layout of the proforma could be improved.
Conclusion: The introduction of a customised proforma improved the quality of documentation of diagnostic laparoscopies significantly. As accurate and complete documentation is important from both a clinical and medico-legal point of view, the routine use of a proforma can be recommended.

FC-127

Laparoscopic management of a cornual ectopic pregnancy
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There are various possibilities of treatment for cornual ectopic pregnancies, as well medical using methotrexate as surgical using laparoscopy.
This report described the laparoscopic management of a large cornual ectopic pregnancy associated with a high β-hCG level and reviews the techniques and outcomes of others conservative treatment described in the literature.
Keywords : cornual ectopic pregnancy and laparoscopy

FC-128

SLN in cervical cancer : last step of the staging
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Radiochemotherapy(RCMT) is the new standard for stage IB,IIA,IIB proximal with bad prognostic factors (Size>/=4cm, lymph nodes involvement, microscopic involvement of parametrium).
SLN biopsy(blue dye and technetium techniques) is proposed as staging procedure:

- It will avoid unnecessary radical surgery when RCMT is needed (N+cases and upstaged cases)
- It will open the door of conservative surgery in node negative cases.

If the SLN are positive at frozen section laparoscopic staging will go on to iliac common and aortic area. If the SLN are negative, definitive assessment and immuo-histo-chimic results will be waited to discuss the opportunity of conservative treatements especially Trachelectomy (Dargent Operation).
The lymphandenectomy is completed in the time of radical surgery
After reviewing the literature about SLN in cervix cancer and recurrences after Trachelectomy This topic proposes a new protocol for a better rational in managing cervical cancer.Laparoscopy is here not only a different way to treat but the most important tool of the good management.

FC-129

Fertiloscopy: review of a 1500 Continuous Case Series
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Background: Although a consensus may exist about using laparoscopy to treat or sometimes remove obliterated tubes in cases of an abnormal hysterosalpingogram (HSG), a consensus does not exist when HSG is doubtful or normal, or doubtful or slightly abnormal. In these cases, many consider the tubes to be normal, and therefore these patients are classified as having “unexplained infertility” and are referred for assisted reproductive technology (ART), most often in vitro fertilization (IVF). The justification for such an attitude is represented by the risks involved with laparoscopy, which is required if one wants to determine the precise tubo-peritoneal status. It is true that even if very rare, laparoscopy is related to some very serious risks that may not be acceptable when treating a nonvital disease like infertility. Nevertheless, systematic laparoscopy performed in case of normal HSG has an abnormality rate between 25% and 40%, depending of the authors. This percentage is sufficiently high to be an incentive in the promotion of a less risky mini-invasive diagnostic tool, namely fertiloscopy, as we described in 1997. Since then, numerous publications have shown its effectiveness, such as the FLY study that compared fertiloscopy versus laparoscopy in the same patient. It is safe, and we have demonstrated some improvement compared with the early technique by addition of operative capability for fertiloscopy. Therefore, we think it is appropriate to review a rather extensive continuous series to underline the interest and the limits of this approach.
Methods: Between August 1997 and January 2005, 1500 patients with no obvious pathology underwent a fertiloscopy before referral to ART. In addition, 87 fertiloscopies were performed for ovarian drilling purposes for polycystic ovarian syndrome. Fertiloscopy was performed according to the technique we have already described.
Results: Of 1500 fertiloscopies, we had 11 (0.7%) failures due to a false route, and 3 (0.2%) rectal injuries treated conservatively. It was possible to perform microsalpingoscopy (which is a systematic part of fertiloscopy) in 1381(92%) patients for at least one tube. Abnormal findings were present in 584 (38.9%) patients, resulting in the performance of operative fertiloscopy in 288 (19.2%) patients and subsequent laparoscopy in 190 (12.6%). The remaining 106 (7%) patients were referred directly to IVF due to the severity of the lesions encountered.

Conclusions: We have demonstrated the feasibility of fertiloscopy in a routine manner. Other studies have shown its cost effectiveness compared with that of standard laparoscopy. We therefore think that fertiloscopy should be routine in infertile patients with no obvious pathology before any IVF attempt.

FC-130

Laparoscopic repair of wide and deep uterine scar dehiscence following cesarean section

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Introduction: Cesarean section is the most commonly performed surgery in obstetrics, with and its incidence is on the increase with rates as high as 17% to 25% in some countries. In certain cases, resulting scar dehiscence may lead to uterine rupture during pregnancy and delivery procedures, with ensuing maternal and fetal morbidity. Nevertheless, in 1997, the Clinical Audit Unit of the RCOG recommended that women who have previously had a cesarean section should be actively considered for subsequent vaginal delivery.
Objectives: Following cesarean section, the risk of uterine rupture in women with previous vaginal delivery is low (<1%) when labor is induced. The risk of uterine rupture exists if the myometrial thickness is less than 2mm.
Results: Evaluation of the thickness of the anterior uterine wall can be done by ultrasound, hysterography, MRI and hysteroscopy. We report two cases of cesarean scar dehiscence, repaired by exclusively laparoscopic procedure including resection of the fibrotic tissue and suture of the anterior uterine wall. In both cases, the myometrial thickness was less than 2mm. Three months after surgery, MRI and vaginal echography confirmed a normal thickness (15mm) of the lower segment.
Conclusion: We describe here the technique of laparoscopic repair of dehiscent cesarean scar. MRI and vaginal echography demonstrated a normal myometrial thickness.

FC-131

Laparoscopic differential diagnosis of anomalies of the internal genital tract combined with vaginal aplasia

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Introduction:
Mullerian anomalies such as uterine and vaginal aplasia are rare congenital disorders. Vaginal aplasia is mostly linked to the Mayer-Rokitansky-Kuester-Hauser-syndrome (MRKH-syndrome), affecting 1 in 4000, or to testicular feminization, affecting 1 in 25000 female live births. Vaginal aplasia and other mullerian anomalies are a problem encountered in all ethnic groups. While they are rarely associated with visible anomalies or mental retardation, their impact on the life of the respective women is considerable.
In spite of the relatively small incidence a practicing gynecologist has a probability of more than 10% to see a patient with vaginal aplasia. Recent medical progress has led to high success rates in the diagnosis and therapy of vaginal aplasia due to MRKH-syndrome and XY-forms. Yet, the whole phenotypic spectrum is often not known. Patients frequently tell us about years of suffering because of wrong diagnosis, insufficient information and ineffective surgical procedures (e.g. hymenal incision).
Methods:
Since 1999 we performed the laparoscopic-assisted creation of a neovagina in over 90 cases, applying a modified Vecchietti-method. The majority of patients had the MRKH-syndrome, some showed testicular feminization. Preoperative diagnostics included vaginal examination, abdominal ultrasound, MRI of the urogenital tract and genetics. Patients were between 14 and 40 years of age at the time of surgery. Regular follow-up was provided for 1 to several years. Psychological support has been offered in all cases.
Results:
The therapy applied had a very high success-rate. In all except one case a laparoscopic approach was possible even with associated malformations like pelvic kidneys. Based on the vaginal and laparoscopic phenotype we developed a patient-classification that not only provides a solid platform for differential diagnosis, but also – and more importantly - for the fine-tuning of therapy. So far, infertility cannot be treated, but there are early indications that this might change for some of the phenotypes.
Conclusion:
The growing number of successful therapies at the University Hospital in T¸bingen demonstrates that hope can replace despair, that life can be quite normal and sexually active for females with MRKH-syndrom or testicular feminization. But this requires an early and proper diagnosis, concise information of the patients and an adequate therapy. Only a flawless process from the first indication via a full diagnosis and laparoscopic assisted surgery till the follow-up and psychological assistance can guarantee the result.

FC-132

New media approach in patient communication women`s health

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Objective:
Around 30-40% of all patients are searching the web for health-relevant information. These numbers reflect the rapidly growing demand of being adequately informed and therefore able to play an active part in the course of therapy. Especially for women with rare syndromes put under taboo like the Mayer-Rokitansky-Kuester-Hauser-syndrome (MRKH-syndrome) internet based information plays an important role by leading them to centres specialised for their needs.
Setting:
We evaluated the efficacy of the usage of modern communication media in patient education on rare syndromes by establishing a website.

The webpage Neovagina.de was constructed according to the demands of affected women, providing detailed scientific facts as well as a discussion forum.
We analysed the number of visits on the website within the last two years, as well as the relation between number of visits and resultant consultations in our medical centre.
Results:
The number of visits per month – defined by a series of comprehensible navigations within Neovagina.de – jumped up within the last two years (11/03: 41 visits per month; 04/04: 328 visits per month; 04/06: 2838 visits per month).
The consultations and resulting surgeries tripled over this period (2004: 10 operations per year; 2005: 21 operations year; total estimated 2006: 30).
Conclusions:
Through a multidimensional concept patients are offered a roadmap through illness and therapy. These numbers display an evident patient demand for medical information and emphasize the necessity to build up websites for patients with rare congenital disorders leading to supraregional centralisation. Consequently an early and proper diagnosis, access to adequate therapy and satisfactory postoperative results are guaranteed.