Gynecol Surg (2009) 6 (Suppl 1):S127–S208
DOI 10.1007/s10397-009-0519-x

ABSTRACTS

Posters

Techniques and Instrumentations in Laparoscopy

P1_01

Calcified Fibroid—Hazards of morcellator

Fawzia Sanaullah, Ashwini K Trehan
Dewsbury and District Hospital, UK

Objective: 36 years, Para 2+0 had complaints of chronic pelvic pain and severe dysmenorrhea. She had a midline diagnostic laparotomy for pedunculated fibroid when she was 12 weeks pregnant.
Materials and methods: Recent, ultrasound confirmed 8 cm×8 cm exophytic fibroid arising from the posterior surface of the uterine fundus. Laparoscopic myomectomy was planned after three injections of Gonapeptyl. At laparoscopy through palmer's point entry, a pedunculated partly calcified fibroid was occupying the pouch of Douglas. It was easily detached using bipolar electrocoagulation and the endoscopic scissors. The 12 mm morcellator (Richard Wolf Ltd) was used to extract the fibroid piece meal. After the fibroid was completely removed while the patient was still on the table, it was found that the blade of the morcellator was partly missing. Three pieces 0.5 mm to 1 cm were removed laparoscopically with the help of X-ray Fluoroscopy.
Results: The operation period was uneventful and she was discharged the next day.
Discussion: Laparoscopic myomectomy is a safe and reliable procedure(1).
Conclusions: Three lessons learnt from this case: • A calcified and degenerated fibroid is likely to be extracted piece meal and all the pieces should be removed. Three cases of peritoneal myomatosis have been reported after laparoscopic myomectomy with morcellator (2–4). • Morcellation of the calcified fibroid may break the blade of the morcellator. • There are no adverse incidents with morcellator reported in the medical literature. MAUDE and MHRA database show reports of malfunction, major vessel and visceral injuries and deaths (5). There is no report of missing blade after laparoscopic myomectomy.
References:

1. Malzoni M, Sizzi O, Rossetti A, Imperato F. Laparoscopic myomectomy: a report of 982 procedures. Surgical Technology International. 15: 123–9. 2006.
2. Kumar S. Sharma JB. Verma D. Gupta P. Roy KK. Malhotra. Disseminated peritoneal myomatosis: an unusual complication of laparoscopic myomectomy. Archives of Gynecology & Obstetrics. 278(1): 93–5, 2008.
3. Takeda A. Mori M. Sakai K. Mitsui T. Nakamura H. Parasitic Peritoneal leiomyomatosis diagnosed 6 years after laparoscopic myomectomy with electric tissue morcellation: report of a case and review of the literature. Journal of Minimally Invasive Gynaecology. 14(6): 770–775, 2007.
4. Milad MP, Sokol E. Laparoscopic morcellator-related injuries. Journal of the American Association of Gynecologic Laparoscopists. 10(3):383–5, 2003.
5. Paul PG. Koshy AK. Multiple peritoneal parasitic myomas after laparoscopic myomectomy and morcellation. Fertility & Sterility. 85(2):492–3, 2006.

P1_02

Laparoscopic microsurgical tubal reanastomosis: the two-stitch technique

M. Turan Cetin; Oktay Kadayifci
Prof. Dr. M. Turan Cetin IVF Center, Turkey

The objective of this study was to determine the effectiveness of the two-stitch unilateral laparoscopic sterilization reversal. Thirty-three patients who underwent unilateral laparoscopic sterilization reversal between December 2001 and October 2006 were evaluated. 20 patients (60.6%) who had had laparoscopic unilateral tubal sterilization reversal achieved an ongoing pregnancy within one year of the operation. IVF was recommended to the other 13 patients including 1 patient (3%) who had an ectopic pregnancy. In conclusion, in our study, the pregnancy rate after the unilateral two-stitch laparoscopic tubal reversal was 60.6%. In this IVF era, tubal anastomosis will become more popular causing fewer women to resort to IVF and experience a completely natural conception making surgery complementary to ART. The number of surgeons skilled in laparoscopic tubal surgery must therefore be increased. Keywords: Laparoscopy, tubal sterilization, reversal, unilateral, pregnancy rate

P1_03

Comparison of the modified McIndoe and modified laparoscopic Vecchietti techniques for the creation of a neovagina in Rokitansky Syndrome

M. Turan Cetin, Ebru Unal, Oktay Kadayifci
Prof. Dr. M. Turan Cetin IVF Center, Turkey

The aim of this retrospective clinical study was to compare the effectivenes and long term anatomic and functional results of the modified laparoscopic Vecchietti and modified McIndoe tecniques used to treat Rokitansky syndrome. Neovaginas were created either with the modified laparoscopic Vecchietti technique or with the modified McIndoe technique in 21 patients with Rokitansky syndrome aged between 17 and 40 years (mean 23) who wished to begin sexual intercourse. Anatomic success was defined as a neovagina longer than 6 cm and the easy introduction of two fingers. Functional success was achieved if the patient reported satisfactory sexual intercourse starting from 6 months after surgery. The performance of both techniques was efficacious. However, postoperative hospital stay and operation times of the modified laparoscopic Vecchietti technique were shorter than those of the modified McIndoe technique and the modified laparoscopic Vecchietti technique was less painful than the modified McIndoe technique.
Keywords: Rokitansky, neovagina, modified laparoscopic Vecchietti technique, McIndoe technique

P1_04

Intermediate-term outcome after laparoscopic sacropexy: Complication rate, re-prolapse rate and functional results: A hospital based cohort study

Carolin Banerjee[1], Marc Banerjee[2], H. Leufgen[1], Günter Karl Noé[1]
[1]Hospital Dormagen, Teaching Hospital Univ. Cologne, [2]Cologne Merheim, Univ. Witten-Herdecke, Germany

Introduction: Several operative approaches for the repair of a genital prolapse have been reported yet, but for the reconstitution of a physiological axis of the vagina regarding size, depth and slant a sacropexy seems to be the most adequate approach. The laparoscopic approach offers several advantages. The aim of this study was to evaluate the intermediate-term outcome of the modified laparoscopic sacropexy (German method) with regard to complication rate, re-prolapse rate and patient's contentedness.
Design/Setting: Observational Study, gynaecological department of a German teaching hospital.
Material & methods: 132 patients suffering from genital prolapse >I° (POPQ) underwent laparoscopic sacroxy. In case of an extant uterus we preferred a simultaneous laparoscopic supracervical hysterectomy (n=62). Anterior and posterior colporrhaphia, lateral repair and anti-incontinence operations were performed simultaneously if necessary. All patients were asked retrospectively in a questionnaire about urinary incontinence including urge and stress symptoms before and at least one year after operative repair. Subsequent operations after prolapse repair and de novo descensus problems were requested. Patients were asked to evaluate their contentedness with the operative result in a rating scale (0 = worst result, not content, 10 = best result, maximum content). Additionally medical records as well as the electronic data base (Care Center Siemens®) were analysed.
Outcome measures: Intra- and postoperative complications (infection, ileus, bleeding, re-prolapse rate, de novo incontinence) and contentedness.
Results: We had a response rate of 84% (n=111). The mean follow-up interval was 22.2 month (range 13–35 month). Mean age at operation was 59.8 years (31–83 years). 4.5% of our patients suffered from a chronicle infection of urinary tract preoperatively. We had no intraoperative lesions. Mean blood loss was 125 ml (range 20–350 ml). 12.6% (n=14) of our patients underwent subsequent operation (4× anti=incontinence operation, 5× re-prolapse, 1× ileus, 1× pain, 2× posterior colporrhaphy, 1 ovarian cancer). We had a postoperative infection rate of 11.6% (n=13). Sub-analysis with regard to aetiology of infection revealed a high number of lower urinary tract infection (n=8; 7.2%). Wound infections were found in three patients (2.6%) with a maximum on the fifth post-operative day. Two patients (1.8%) returned due to an infection of the cervical stump after LASH. One patient (0.9%) returned six month after operation suffering from a mechanical ileus. Small intestine was distorted under the sacropexy mesh and necrotic parts had to be removed over the length of 15 cm. Five patients reported postoperatively about de novo stress incontinence (4.5%). Four patients (3.6%) suffered postoperatively from low graded de novo urgency. We had a re-prolapse rate of 7.2% (5.4% prolapse grade II–III (n=6), 1.8% grade IV (n=2)). De novo cysto- or rectocele respectively occurred in 1.8% (n=2). Mean contentedness rate was 8.3 points. The subgroup suffering from de novo incontinence showed a reduced contentedness with regard to the operative result (mean 7.2 points).
Concluding message: The laparoscopic sacropexy shows good intermediate-term results respectively re-prolapse rate, complication rates and contentedness of patients (tab.1). Infections of the lower urinary tract constitute a problem after gynaecological interventions. Peritoneum is closed in very small steps as a result of our ileus complication. In general our patients were very content with the operative result. Nevertheless de novo incontinence reduces this success. The preoperative risk and benefits information of any pelvic surgery should include accurate advices concerning de novo incontinence and re-prolapse rate.

Table1: Comparison between laparotomy (Jünermann et al.) and laparoscopy (own data): Complications and results

	Laparotomy, n=59, 6 month	Laparoscopy, n=111, 22 month
Intraoperative complication	4.4% bleeding /3.1% bladder-lesion/	none
Postoperative complication	0.4 nerve lesion	0.9%
Ileus		0%
Mesh Erosion	2%	0%
Thrombose	2%	11.6%
Infection	0.1%	
	10%	
De novo Zystocele	6%	1.8%
De novo Rectocele	4.4%	1.8%
Re-Prolaps	8%	7.2%
Urgency	8%	3.6%
De novo stress incontinence	4.9%	4.5%

P1_05

Sexual impairment in patients with pelvic organ prolapse and the influence on sexuality after laparoscopic sacropexy: A hospital based cohort study

Carolin Banerjee[1], Marc Banerjee[2], C. Fanselau[1], Günter Karl Noé[1]
[1]Hospital Dormagen, Teaching Hospital Univ. Cologne, [2]Cologne Merheim, Univ. Witten-Herdecke, Germany

Introduction: Genital prolapse may impair females' sexuality. No data concerning sexual influence after laparoscopic prolapse surgery are available yet. The aim of this study was to evaluate the physical and psychological impairment of sexuality in women suffering from genital prolapse and the effect after laparoscopic repair.
Design/Setting: Observational Study/Gynaecological department of a German teaching hospital.
Material & methods: 132 patients suffering from genital prolapse higher than grade one POPQ (pelvic organ prolapse quantification) underwent laparoscopic sacropexy. Accessory operations including lateral repair, anterior or posterior colporrhia, Lash or anti-incontinence procedures were performed simultaneously if necessary. Patients were asked retrospectively to fill in two questionnaires concerning impairment of sexuality due to vaginal problems (ICIQ-VS) and sexuality in general (ICIQ-sex). The sexual scores and items of ICIQ-sex and ICIQ-VS were analysed pre- and postoperatively using SPSS (t-test and Wilcoxon test). Life quality questions were

sub-analysed. All data were also analysed with regard to age and accessory operations.

Results: We had a response rate of 84%. The mean follow-up interval was 22. 2 month (range 13–35 month). Mean age at operation was 59. 8 years (31–83 years). 56.8% of our patients were sexual active. The minority (4.2%) of the inactive patients reported of inactivity resulting from the prolapse. The remaining sexual inactive patients constituted their inactivity due to other reasons. Postoperatively all patients of the active group remained active (56.8%). In the inactive group 50% of patients, who were previously inactive due to vaginal reasons changed into the subgroup of inactivity due to other reasons. Patients who were preoperatively inactive due to other reasons did not change their sexual behaviour. In the sexual active group we found a statistical relevant improvement of the sexual matter score of ICIQ-VS from preoperatively 26.4 to 9.0 points after operation. ICIQ-sex score improved from 3.4 preoperatively to 1.2 points postoperatively (table 1). Pain and bladder symptoms were the predominant factors for disturbance of intercourse preoperatively. Postoperatively we found a statistical relevant decrease of vaginal dryness, pain, bladder problems and urinary leakage during intercourse (table 1, fig.1). 86.5% of patients required accessory operations. Patients who underwent anti-incontinence procedures showed a maximum benefit after operation for all factors. A statistical relevant improvement was found for both questionnaires in both age groups, but especially in patients younger than 50 years (fig. 2). Regarding quality of life items we found preoperatively a higher level of impairment in the younger group.

Conclusions: Laparoscopic prolapse surgery reduces sexual impairment in sexual active patients especially in the age group younger than 50 years. There is no benefit for patients who are completely sexual inactive due to the prolapse. Additional vaginal operations do not deteriorate sexuality. To our knowledge this is the first study which analysis impairment of laparoscopic prolapse surgery to female's sexuality using standardised questionnaires. Our findings will maybe useful for the uro-gynaecologist as well as the sexual therapist to answer patient's questions concerning sexuality after laparascopic prolapse treatment.

Table 1: Questions (B) and scores, active group only.

	N	Pre OP	Post OP	Change (95% CI)	P value*
Vaginal dryness	62	2.3 (3.1)**	1.5 (2.6)	0.8 (0.1 to 1.5)	0.021
Bladder problems	63	3.6 (3.5)	1.2 (2.1)	2.5 (1.6 to 3.3	<0.001
Pain during intercourse	63	3.7 (3.7)	1.4 (2.4)	2.2 (1.4 to 3.1)	<0.001
Urinary incontinence during intercourse	63	2.3 (3.4)	0.8 (1.9)	1.6 (0.9 to 2.3)	<0.001
Worries interfere sex life	63	5.2 (3.5)	1.6 (2.4)	3.6 (2.8 to 4.4)	<0.001
Relationship with partner affected	63	4.3 (3.5)	1.5 (2.5)	2.8 (2.0 to 3.6)	<0.001
ICIQ-VS, sex	63	26.4 (17.4)	9.0 (12.1)	17.4 (13.4 to 21.4)	<0.001
ICIQ, sex	61	3.4 (3.0)	1.4 (2.0)	2.0 (1.2 to 2.7)	<0.001

Abr. CI "confidence interval", OP "operation", * two-sided paired t-test,** Mean (SD)

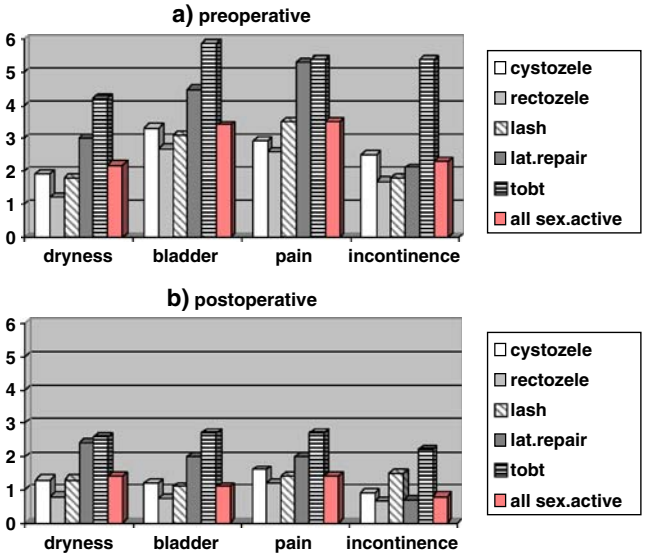


Fig. 1: Influence of accessory operations on sexual life: quality of life with regard to vaginal dryness, bladder symptoms, pain and urinary incontinence during intercourse: a) Pre- and b) postoperative mean values

P1_06

Gynaecological surgery: from calluses to tendinitis

P. Deulofeu, JF. Garrido, JJ. Martínez and J. Novell
Hospital Municipal de Badalona, Spain

The old surgeons used to be proud to show calluses on their hands, located on the external side of the thumb distal phalanx and the internal side of the middle finger distal phalanx, caused by the rubbing of the Kocher''s forceps and scissors. It was a clear proof of their experience. The minimally invasive procedures, mainly laparoscopy and hysteroscopy, have been an important contribution to surgery development. After having performed many endoscopies, thus adopting incorrect positions, surgeons can suffer from muscular-skeletal injuries. This is nothing to be proud of, but an occupational disease that will prevent them from carrying on their surgical activity. *Clinical case* A 53-year-old gynaecologist with no pathological history presents an upper-outer pain on the left shoulder that makes it difficult for him to comb his hair, to get dressed and to sleep. The pain gets worse during the performance of surgical endoscopies. In his anamnesis, 494 operations carried out during the last year stand out, 296 (60%) of which were endoscopies. During a complete range of motion of the shoulder joint, it was observed hypersensitivity of the supraspinatus muscle and positive compression manoeuvres. The X-ray and the scan were normal. His NMR showed minimum articular loss and bicipital peritendinitis. He was diagnosed with "shoulder impingement syndrome". He had to reduce his surgical activity and to take ibuprofen. Since he did not get any better, he decided to undergo rehabilitation. He completed 30 sessions of 1 hour, during 2 months, that included massotherapy, cryotherapy, thermotherapy, ultrasonotherapy, iontophoresis, and exercises of passive and active recovery as well as exercises to strengthen his muscles. He was fully recovered and he could go straight back to his normal labour activity. In order to prevent a possible relapse, a checking of the endoscopic ergonomics with cervical and shoulder muscular exercises was indicated.

P1_07

The Effect of Supro application after abdominal surgery

Metin Çapar, Hasan Esen, Ahmet Tekin, Bülent Şimşek, Kaddafi Özçelik, Alaa S. Mahmoud
Selcuk University, Turkey

Aim: The aim of this study was to determine the efficacy of Supro in the prevention of postoperative adhesions.
Material and methods: The study was carried out on 16 rats in two groups each of 8 rats. Classical midline laparotomy was done for all rats under ketamine anesthesia. One centimeter of the distal right tube of the rats was excised.The 1st group was defined as control group. For the 2nd group supro material was used during laparotomy. All rats were sacrificed on the 11th postoperative day after relaparotomy. After relaparotomy the macroscopic, microscopic and laboratory findings of the two groups were compared. During relaparotomy adhesions were scored according to Grant scoring. Also blood samples were taken and tested for hemoglobin, alanine aminotransferase (ALT), aspartate aminotransferase (AST), urea and albumin.
Findings: The stage of adhesions in Supro group was significantly lower than the other group. Biochemical, hematological parameters were similar between the two groups.
Result: The postoperative adhesions frequency and staging were significantly lowered in rats of the Supro group.

P1_08

Anterior superior iliac spine: an important anatomical landmark for symmetrical placing of ancillary laparoscopic ports in gynaecologic surgery

M. Granata, I. Korkontzelos, N. Gioulekas, I. Tsimpanakos, S. Charalampos, A. Magos
Royal Free Hospital, London, UK

Background: There are several guidelines regarding the placement of the ancillary ports used at laparoscopy but none of them address the issue of port symmetry. We wanted to assess the usefulness of the right and left anterior superior iliac spines of the pelvis as fixed reference points for the insertion of the ipsilateral ancillary ports in terms of achieving port symmetry.
Methods: The study was carried out in a gynaecology unit specializing in endoscopic surgery, and included 30 patients undergoing laparoscopic surgery. We randomized patients to using the anterior superior iliac spine as the reference point for ancillary port entry with a purely visual technique. All ancillary ports were inserted lateral to the inferior epigastric vessels after laparoscopic visualization. A photograph was taken of the anterior abdominal wall at the end of surgery and the position of the port sites measured digitally.
Results: There were no statistically significant differences in the position of the port sites in the vertical (longitudinal) and horizontal (transverse) axis between the two groups as a whole. However, when looking at port position for individual patients, we found that vertical port symmetry was significantly superior in the study group. In four patients in the control group (27%) but none of the study group, we found relatively large differences (>2 cm) in the position of the **ports in the vertical or horizontal axes.**
Conclusions: The anterior superior iliac spine is an easily palpable landmark and a useful aid for placing the lateral ancillary laparoscopic ports symmetrically.

P1_09

A simple way to avoid the inferior epigastric vessels at laparoscopy

M. Granata, I. Korkontzelos, N. Gioulekas, I. Tsimpanakos, S. Charalampos, A. Magos
Royal Free Hospital, London, UK

Background: Previous studies on safe accessory laparoscopic entry have been conducted, but none of them has used the anterior superior iliac spine as guide.
Objective: To identify a safe area for accessory port entry during gynaecological laparoscopic surgery using a fixed anterior abdominal wall landmark as a guide.
Methods: We studied 56 patients undergoing laparoscopic surgery. Following insertion of the laparoscope, the distance between the inferior epigastric vessels and ipsilateral anterior superior spine of the pelvis was measured in the horizontal plane on both sides.
Results: In the women in whom we could trace the inferior epigastric vessels (50 on the left, 48 on the right), the mean distance between the anterior superior iliac spine and the ipsilateral epigastric vessels was 8.6 cm on both sides, ranging between 7–10.5 cm and 7–10 cm on the left and right sides respectively. We found no correlation between the transverse distance between the anterior superior iliac spine and the ipsilateral inferior epigastric vessels in terms of weight, height or BMI.
Conclusions: Lateral trocars should be placed less than 7 cm medial to the anterior superior iliac spine.

P1_10

A novel technique for performing the Novasure®-procedure under local anaesthesia only in an out-of-hospital office setting

Henrik Skensved
Private practice, Hillerod Denmark

Although most second generation endometrial ablation techniques are said to be performable under local anaesthesia a review of the literature points to the fact that an acceptable level of pain during such treatments are dependent on the simultaneous administration of general anaesthetics, sedatives or tranquilizers making the treatments unsuitable for a office setting for which they are originally intended. By combining a traditional paracervical block using ropivacain and a focal local anaesthesia in the form of prilocain placed in the fundal myometrium through a hysteroscopically inserted syringe used to bulk the urethra it is demonstrated that the Novasure®-procedure can be performed in a true out-of-hospital office setting without need of any additional anaesthetic, sedative or tranquilizing agents. Of the 25 women treated, none scored higher than 3 on a visual analogue scale on pain, and six of the women scored 0. Three of the women (12%) experienced slight dizziness after the injection of prilocain into the fundal myometrium, but in all three cases blood pressure, pulse rate and oxygen

saturation stayed within normal limits. None of the 25 women needed to use the surgery's restroom and all of the 25 women left the surgery free of symptoms within 20 minutes of the termination of the Novasure®-procedure. During the first evening and night after the procedure, 4 women needed no further pain relief, 8 women used 1–1½ grams of paracetamol, 12 used the 500 mg of naproxen that was prescribed to them prior to surgery and 2 women used paracetamol and naproxen in combination. None of the women made use of the access to the performing surgeon that was made available to them by mobile phone during the first 24 hours after surgery. All of the 25 women either went back to work or stated they could have gone back to work one day after the Novasure®-procedure. All of the 25 women (100%) stated that they would recommend the Novasure®-procedure to a friend. In conclusion, the set-up presented seems to represent a satisfactory way of performing the Novasure®-procedure under local anaesthesia only in a out-of-hospital office setting. Obviously, the number of women in the study is small and hence further studies on a larger scale is demanded. A video demonstrating the focal local anaesthetic technique is part of the oral presentation. Conflict of interest: none. The author has neither directly nor indirectly been subsidized or otherwise supported by companies whose products have been involved in the present study.
The author is the only medical professional who has participated in the study.

P1_11

Seven year experience in laparoscopic dissection of intact ovarian dermoid cysts

Andreas Kavallaris, Sotiris Mytas, Nektarios Chalvatzas, Georg Griesinger, Klaus Diedrich
Department of Obstetrics and Gynaecology, University of Schleswig-Holstein, Campus Luebeck, Luebeck, Germany

Background: Intraperitoneal spillage of dermoid cyst content, if not followed immediately by abundant peritoneal lavage, can cause a chemical peritonitis with subsequent adhesion formation.
Study objective: The purpose of current 7-year, retrospective study is to evaluate the efficacy of laparoscopic ovarian dermoid cystectomy with an endobag and compare the outcome after a controlled intraperitoneal spillage of cyst contents.
Design: Retrospective, 7-year (September 1999–January 2006) study. The laparoscopic technique included: dissection of the cyst by a combination of bipolar and scissors and extraction of the cyst after its placement inside a laparoscopic bag.
Patients and methods: 121 premenopausal women with dermoid cysts. We assessed surgical time, spillage, complications, length of hospitalization, recurrences, and pregnancies. In the 121 women, 127 dermoid cysts (mean diameter 6.5±1.50 cm, range 3 to 12 cm) were enucleated and removed at operative laparoscopy through a 10- mm Trocar without intraoperative or postoperative complications. Mean operating time was 68 minutes (range 40 to 180 minutes). The cysts were removed with an endobag. In 15 (12,4%) cases the cyst was ruptured while enucleated. Obvious spillage of endocystic contents occurred in 3 (2, 5%) patients because of a ruptured bag. No signs or symptoms of peritonitis were observed in women with evident cystic spillage or in patients without cystic spillage. Average postoperative hospital stay was 6.7 days. Operative follow up was available in 35 of the 121 patients; In 9 (7,4%) patients because of dermoid cysts on the contraleteral ovary, in 4 (3,3%) patients because of recurrence. Nine (7,4%) patients experienced spontaneous pregnancy in the last 7 years.

P1_12

Laparoscopic management of ectopic pregnancy during a 9 year period

Conny Banz, Daniel A. Beyer, Amadeus Hornemann, Katharina Kelling, Feriel Amari, Klaus Diedrich, Andreas Kavallaris
Department of Obstetrics and Gynaecology, University of Schleswig-Holstein, Campus Luebeck, Luebeck, Germany

Introduction: We analysed the epidemiology of ectopic pregnancy (EP) during a 9 year period, 01.1998-01.2007. Over a nine-year period a total of 473 women were admitted with the diagnosis of ectopic pregnancy.
Material and methods: Data regarding gynecological anamnesis, previous pelvic inflammation, previous genital infections, previous gynecological pelvic/abdominal surgery, past infertility and use of contraceptives were compiled from the medical records. Moreover, data regarding clinical signs, transvaginal sonographic findings, ß-human chorionic gonadotropin (ß-hCG) values, duration of the operation, postoperative complications and duration of hospital stay were recorded.
Results: Median age of the patients was 31 years (range 17–43). A laparoscopic procedure was performed in 98.3% (465/473) and 1.7% (8/473) received methotrexate up front and in 2 of these 8 patients require laparoscopic removal of the rest EP. A total group of 402 patients (84.98%) underwent linear salpingotomy. 32 patients (6.76%) underwent total Salpingectomy. 13 patients (2.74%) underwent partial Salpingectomy 18 patients (3.8%) underwent EP removal None laparoconversion was need to performed. In 98% of the cases the transvaginal sonographic findings correlated with the intraoperative findings. Duration of the operation was 36.5 minutes (range 23–120 minutes). Intraoperative complications: none, postoperative complications: 8 pts. need to re.-lsk removal of EP rest. Duration of hospital stay: 3.2 days (range 2–8 days) ß-HCG: average 233 (range 126–13000) at the time of the operation. Anamnestic data before the operation in our clinic Tubal surgery 21pts Sterilization 12 pt Previous ectopic pregnancy 2 pts Use of IUD 12 pts Use of oral contraceptive 8 pts Documented tubal pathology 23 pts Infertility 69 pts Previous genital infections 36 pts Previous pelvic/abdominal surgery 33 pts Cigarette smoking 45% Frequency of Ectopic Pregnancy by Location Implatation Site Tubal total of 446 pts Site of Implantation right 289 pts 64.8% Site of Implantation left 157 pts 35.2% Ampullary 204 pts, 70.6% 97 pts, 61.8% Isthmic 60 pts 20.8% 40 pts, 25.5% Fimbrial 25 pts, 8.6% 20 pts, 12.7% Cornual/Interstitial 8pts 1.69% Ovarian 15pts 3.17% Abdominal/omentum majus 2pts, 0.42% Cervical 1 pt, 0.21% simultaneus intrauterin and EP 1 pt 0.21% Total of 473 pts Follow up of 9 years period (range 12–108 months) The women were interviewed about reproductive events, recurrence of EP and surgery, by telephone. We asked questions about the desire for a pregnancy, pregnancies achieved, treatments for infertility. 289/473 (61%) were found at follow-up Recurrence rate on the operated site: 6/289 (2%) all 6 pts. were having salpingotomy EP on the contralateral site:

8/289 (2.76%) Pregnancy rate: 208 try to became pregnant and 91/289 (31.48%) became pregnant 31pts with the help of reproductive medicine (IVF and ICSI).

P1_13

The learning curve of laparoscopic sacrocolpopexy

Dimitri Sarlos, LaVonne Kots, Gabriel Schär
Department of Gynaecology, Kantonsspital Aarau, Switzerland

Objectives: During the last years laparoscopic sacrocolpopexy has developed into a well established surgical treatment option for vaginal vault prolapse. Despite interesting results laparoscopic prolapse surgery is still not performed in many Urogynaecologic centres. Often laparoscopic sacrocolpopexy is thought to have an unfavourable learning curve and difficulties reproducing published data are of concern. The goal of this prospective study was to evaluate the learning curve of laparoscopic sacrocolpopexy focusing on operating times, complications and outcome according to surgeon's experience.
Study design: We prospectively analyzed the first consecutive 132 cases of laparoscopic sacrocolpopexy with or without supracervical hysterectomy performed in our hospital by 2 senior Urogynaecologists experienced in laparoscopic procedures between October 2003 and July 2007. Data on operating times, complications and outcome were collected and analyzed according to surgeons' experience.
Results: 69 patients had laparoscopic sacrocolpopexy and 63 had simultaneous supracervical hysterectomy for symptomatic uterine or posthysterectomy prolapse. Mean duration of all surgeries was 146 minutes respectively 162 minutes for the procedure including supracervical hysterectomy. After 20 cases the average operating time drops considerably from 180 to 156 min and stabilizes around 125 (sacropexy only) to 150 min including hysterectomy. Four bladder lesions occurred in the first 60 patients with previous anterior colporrhaphy. No bladder lesions occurred in the second half. Three rectal lesions occurred, all in patients with previous posterior colporrhaphy and a BMI over 35. No correlation between rectal lesions and the surgeons experience could be seen. Eight objective recurrences (6.6%) occurred with a median follow up of 12 months. Recurrences do not seem to relate to surgeons' experience.
Conclusion: Laparoscopic sacropexy is a feasible, safe and reproducible technique for surgeons performing laparoscopic interventions like total laparoscopic hysterectomies. The anatomical outcome is excellent and seems to be independent of surgeons' experience. Bladder lesions seem to be subject to surgeons experience; rectal lesions seem to depend more on patients' factors.

P1_14

Face and construct validity of the SimSurgery SEP VR simulator for salpingectomy in case of ectopic pregnancy

M. Hessel, S.N. Buzink, B.C. Schoot
Catharina Hospital, Eindhoven, The Netherlands

Objective: To secure patient safety, skills needed for laparoscopy are preferably obtained in a non-patient setting. Therefore, we assessed face and construct validity of performance of a salpingectomy in case of ectopic pregnancy on the SimSurgery SEP VR simulator.
Setting: Medical trainees and practicing gynaecologists performed multiple simulator tasks in a skillslab setting.
Patients: Seventeen novices (no laparoscopy experience) and fifteen experienced gynaecologists (clinical experience ≥ ESGE level 2) participated on a voluntary basis.
Interventions: After an introduction to the simulator, they performed the Place Arrow (PA), Inspect Abdomen (IA) and Ectopic Pregnancy (EP) tasks twice and filled out a questionnaire to evaluate realism and didactic value of the simulator on 5-point scales.
Measurements & main results: Performance was assessed by the time needed to complete the tasks, total instrument path length and the amount of blood loss. For the EP task we identified a trend towards better performance in the experienced group for blood loss ($p=0.115$) and time ($p=0.353$), but not for path length ($p=0.895$). However, for the PA task the experienced group scored significantly better (time: $p=0.004$; path length: $p=0.004$) compared to novices. For the IA task no significant differences were found between the groups at all. Most experienced gynaecologists agreed that VR training for ectopic pregnancy provides important additional training for residents (mean=4.5, sd=0.74) and that experience gained with the simulator is useful in clinical practice (mean=3.8, sd=0.80). They rated the simulator 3.5 (sd=0.92) and 2.9 (sd=1.10) for reality of technical skills needed and virtual representation of movements respectively.
Conclusion: This simulator can discriminate between different levels of expertise (construct validity) for the component task (PA) but not for the procedural task (EP) and although the SimSurgery SEP simulator lacks convincing realistic representation of salpingectomy for ectopic pregnancy according to experts (face validity) it is still seen as an important additional training tool for residents.

P1_15

Histological Quantification of the tissue damage caused in vivo by neutral PlasmaJet™ Coagulator

S. Deb[1], S. Deen[1], K.S. Ashford[1], A. Harwood[1], C. Newman[2], M.C. Powell[1]
[1]*Nottingham University Hospitals, Queen's medical Centre, Nottingham NG7 2UH*
[2]*Plasma Surgicals Ltd, Berks RG7 4AQ*
Nottingham University Hospitals NHS Trust, Nottingham UK

Introduction: The PlasmaJet™ coagulator is a new technology using neutral pure argon plasma to achieve coagulation. A high energy jet beam of argon gives up its kinetic energy as heat and achieves coagulation by forming a multilayer eschar.
Objective: The objective of this study was to evaluate the tissue damage caused by plasmajet coagulator in the uterus, ovary, and fallopian tube at different power settings in vitro and then to examine the damage caused in vivo. Our hypothesis was that it is a safe technology to use and that it compares to the currently used techniques of coagulation.
Methods: 5 subjects undergoing hysterectomy with unilateral or bilateral salpingo-oophorectomy were prospectively recruited for in vitro assessment. Tissue damage was evaluated histologically accounting for power levels at 10%, 15%, and 20%; for duration of application of diathermy at 2 and 5 seconds; and for distance between the tip of probe and tissue at 0.5 and 1 cm. 15 subjects undergoing hysterectomy with unilateral or bilateral salpingo-oophorectomy were prospectively recruited for in vivo assessment of plasmajet coagulator.

The most suitable power setting, duration of diathermy, and distance from tissue was decided from in vitro examination and applied on in vivo setting and compared to helica thermal coagulator set at a standard low power setting used for treating endometriosis. Tissue damage was evaluated histologically.

Results: Data was normally distributed. ANOVA was used to compare the mean differences. There was no significant difference seen in the depth and width of tissue damage in the in vitro specimens at different power levels, distance, and duration of diathermy ($P>0.05$). A setting of 20% power, duration of 5 secs of diathermy, and a clinically acceptable distance of 0.5 to 1 cm was used therefore for in vivo setting. This was compared to Helica coagulator which was set at the widely used low power setting. In all the types of tissue (uterus, ovary and fallopian tube), controlling for time, distance and power, there was significantly lesser tissue damage in width (lateral spread) seen with plasmajet than Helica coagulator ($P<0.05$). There was no significant difference in the depth of tissue damage between the two coagulators ($P>0.05$).

Conclusion: Plasmajet coagulator is a safe method of coagulation at 20% power on gynaecological tissues. The lateral spread (width of tissue damage) is lesser with plasmajet than as compared to Helica.

P1_16

Results of IVF/ICSI cycles in patients with bilateral hydrosalpinges with and without salpingectomy

A. Gvenetadze, G Tsagareishvili, N. Khonelidze, K. Osidze

Zhordania Institute of Human reproduction, IVF and Surgery Departments. Georgia

Introduction: At the beginning of the IVF era the methodology was thought to be treatment only of tubal factor infertility. During past 3 decades gained experience and clinical data revealed that its indications and possibilities are much more wide. There are a lot of data about prognostic efficiency in patients with infertility of different origin. Analysis of retrospective data revealed that in patients with most prominent tubal damage—with hydrosalpinges pregnancy rates are unusually low. Nowadays it is recommended to perform tubectomies before referring patient to the IVF/ICSI for increased pregnancy rates and decreased rate of complications.

Methods and materials: In retrospective study we investigated results of IVF/ICSI cycles in to groups of women. I group: 23 women with bilateral hydrosalpings with laparoscopic bilateral laparoscopic tubectomy before IVF/ICSI and II group: 20 women with bilateral hydrosalpinges without tubectomy before IVF/ICSI procedures. Clinical-laboratory parameters of both groups were similar. Stimulation was done with GnRH-agonist short protocol with recombinant FSH. HCG injection was done when several dominant follicles reached 18 mm in diameter. After transvaginal follicle aspiration depending of the infertility origin was performed routine IVF or ICSI procedure. Transfer of embryos into uterine cavity was done routinely on the 2 or 3 day. Biochemical pregnancy was defined as positive βCG at the 14 day after embryo transfer and clinical pregnancy was defined as positive heartbeat of fetus on ultrasound scan after 5 weeks after embryo transfer.

Results: In the I group pregnancy rates were 36% (9/23), clinical pregnancy rate 34% (8/23), implantation rate 24%(11/45), spontaneous abortion rate 12% (1/9), ectopic pregnancy rate 0%, in the II group pregnancy rate was 20% (5/20), clinical pregnancy rate 16% (3/20), implantation rate 14%(6/42), spontaneous abortion rate 20% (1/5), ectopic pregnancy rate 20% (1/5).

Resume: In the patients with bilateral hydrosalpings performing laparoscopic tubectomy before IFV/ICSI procedure significantly increases pregnancy rates and decreases frequency of such complications as spontaneous abortion and ectopic pregnancy.

P1_17

Endometrial cytokines expression during the menstrual cycle

V. De Leo[1], G. Morgante[1], MC Musacchio[1], R. Focarelli[2], G. Campanella[2], A. Stendardi[3], P. Piomboni[3]

[1]Dept. Pediatrics, Obstetric and Reproductive Medicine- Gynaecology and Obstetric Section, University of Siena, Italy; [2]Dept. Evolutionary Biology, University of Siena, Italy; [3]Biomedical Sciences- Applied Biology Section, University of Siena, Italy

Introduction: Human endometrium undergoes cyclical changes during the menstrual cycle: regeneration, proliferation, differentiation and disintegration at the end of the cycle if the embryo implantation does not occur. A wide array of cytokines are expressed within the uterus and play an important role in endometrial remodelling and function. It has been postulated that endometrial cytokines may contribute to the local modulation of feto-maternal interplay and that any alteration in the cytokine network may be involved in implantation-failure. Two of the most important cytokines involved in the human reproductive process are the Macrophage Inhibitory Factor (MIF) and glycodelin.

Glycodelin A (GdA) is a multifunctional glycoprotein with multiple potential effects on the outcome of natural human reproduction. Its activities range from an inhibitory effect on sperm-zona pellucida interaction to an immunomodulatory one during embryo implantation in order to protect the embryo from mother's immune response. Most, if not all, of the biological activities of this molecule are directly or indirectly influenced by its oligosaccharide moieties (Seppälä et al., 2009).

MIF is a proinflammatory cytokine first described as a factor inhibiting random migration of macrophages *in vitro*. Recent findings on its immunomodulating activity suggests a possible role in reproduction related biological events such as ovulation, implantation and embryogenesis (Viganò et al., 2007).

Although it has been established that the expression of GdA and MIF undergo cyclic changes during the menstrual cycle of normovulatory women, little, if anything, is known regarding the kind of glycoforms secreted in the different phases.

Materials and methods: We used a biochemical approach to the study of GdA and MIF production during the menstrual cycle by means of two dimensional electrophoresis followed by immunoblotting with specific monoclonal antibodies on protein extracts of endometrial biopsies collected in different phases of the menstrual cycle and from patients affect by chronic endometritis.

Results: GdA and MIF are uninterruptedly expressed during the menstrual cycle but semi-quantitative and qualitative analysis revealed significant differences in total levels (fig 1, fig.2) Five main glycoforms of GdA are present in endometrial biopsies. The lower overall GdA content was found in the periovulatory phase and in the fertilization window as expected from its reported anti-fertilization activity whereas, probably because of its well known immunosuppressive role at the feto-maternal interface, the higher GdA content was found in samples collected during the implantation.

Interestingly, in samples collected during the implantation window a new highly sialylated glycoform (spot n6- fig.1) appears which is not present in any other sample.

MIF show a regulated cycle-phase dependent expression in endometrial biopsies. The higher expression during the proliferative phase could be related to its proliferative and pro-angiogenic activity in tissue remodelling. Reduction in MIF protein expression in fertile and implantation window could be due to its immunomodulatory properties.

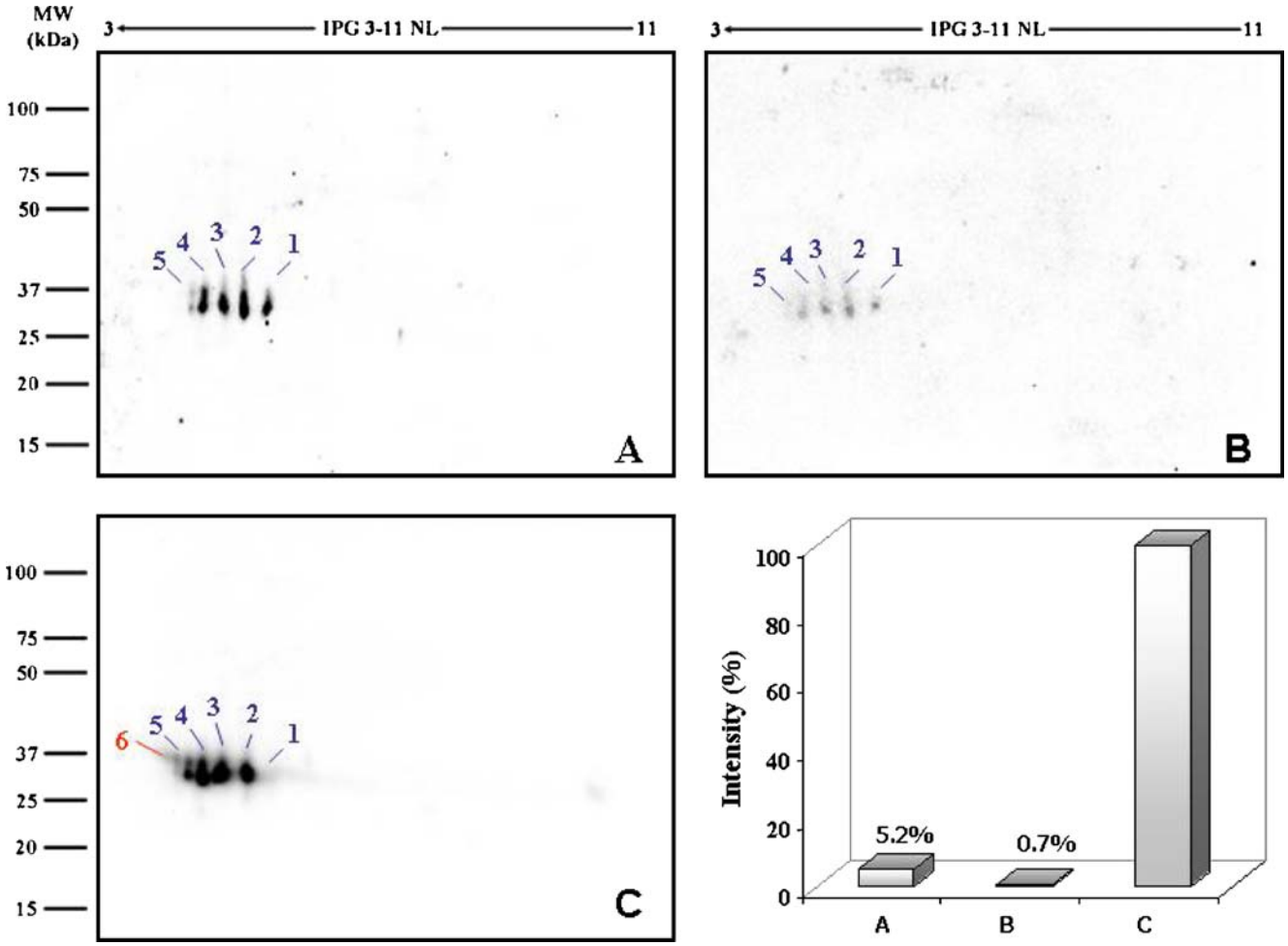


Fig. 1 2D immunoblotting representing endometrial GdA expression during the menstrual cycle: proliferative phase (A), fertilization (B) and implantation windows (C). Total relative GdA content in the three phases is reported in the graph.

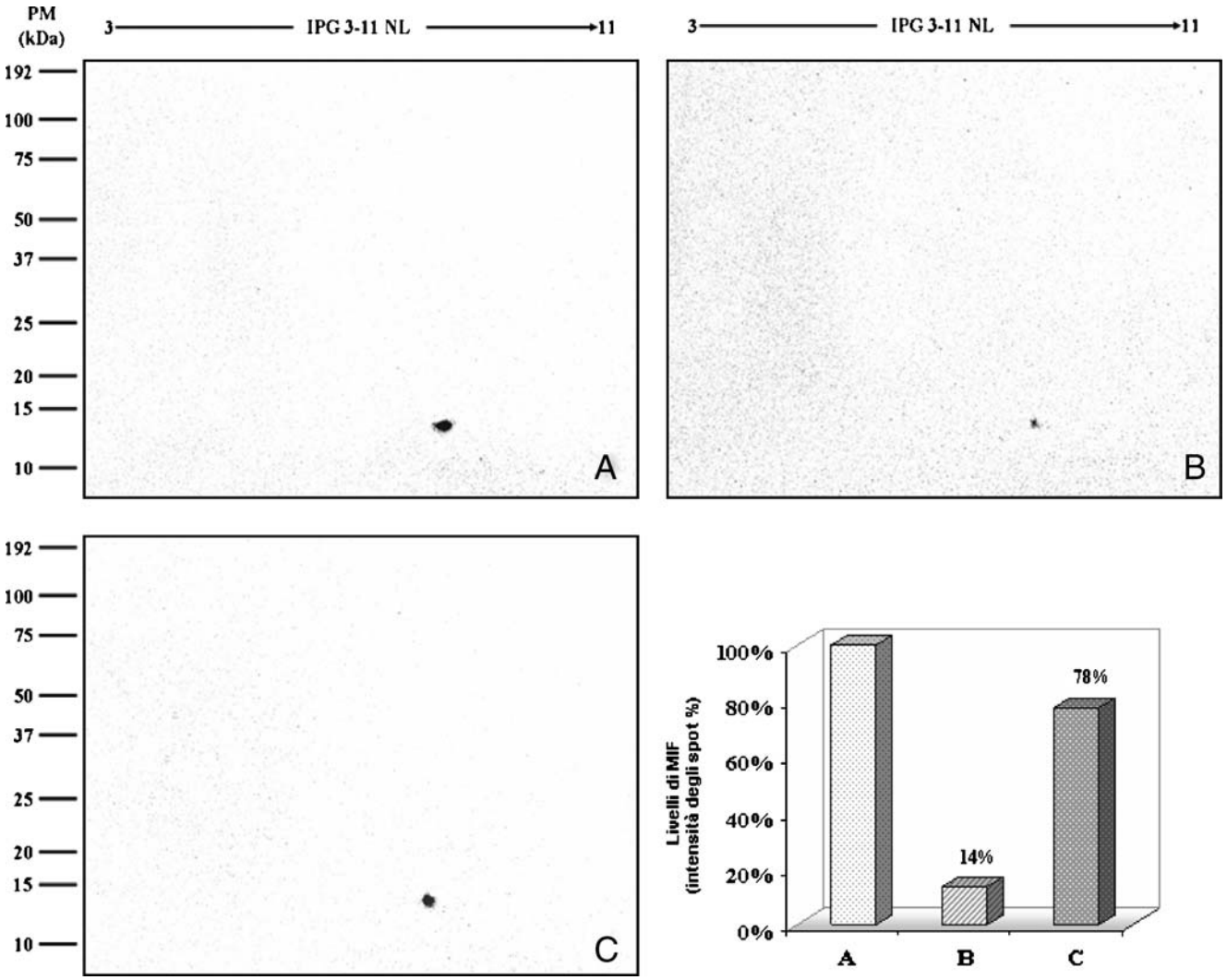


Fig. 2 2D immunoblotting representing endometrial MIF expression during the menstrual cycle: proliferative phase (A), fertilization (B) and implantation windows (C). Total MIF content in the three phases is reported in the graph.

Glycodelin A and MIF expression are strongly reduced in endometrial biopsy samples from women diagnosed with chronic endometritis, a condition known to lead to sub or infertility mainly because of defects in the embryo implantation process. Further studies are needed to understand if GdA and MIF reduction in endometritis could be considered a cause or a consequence of this pathological condition.

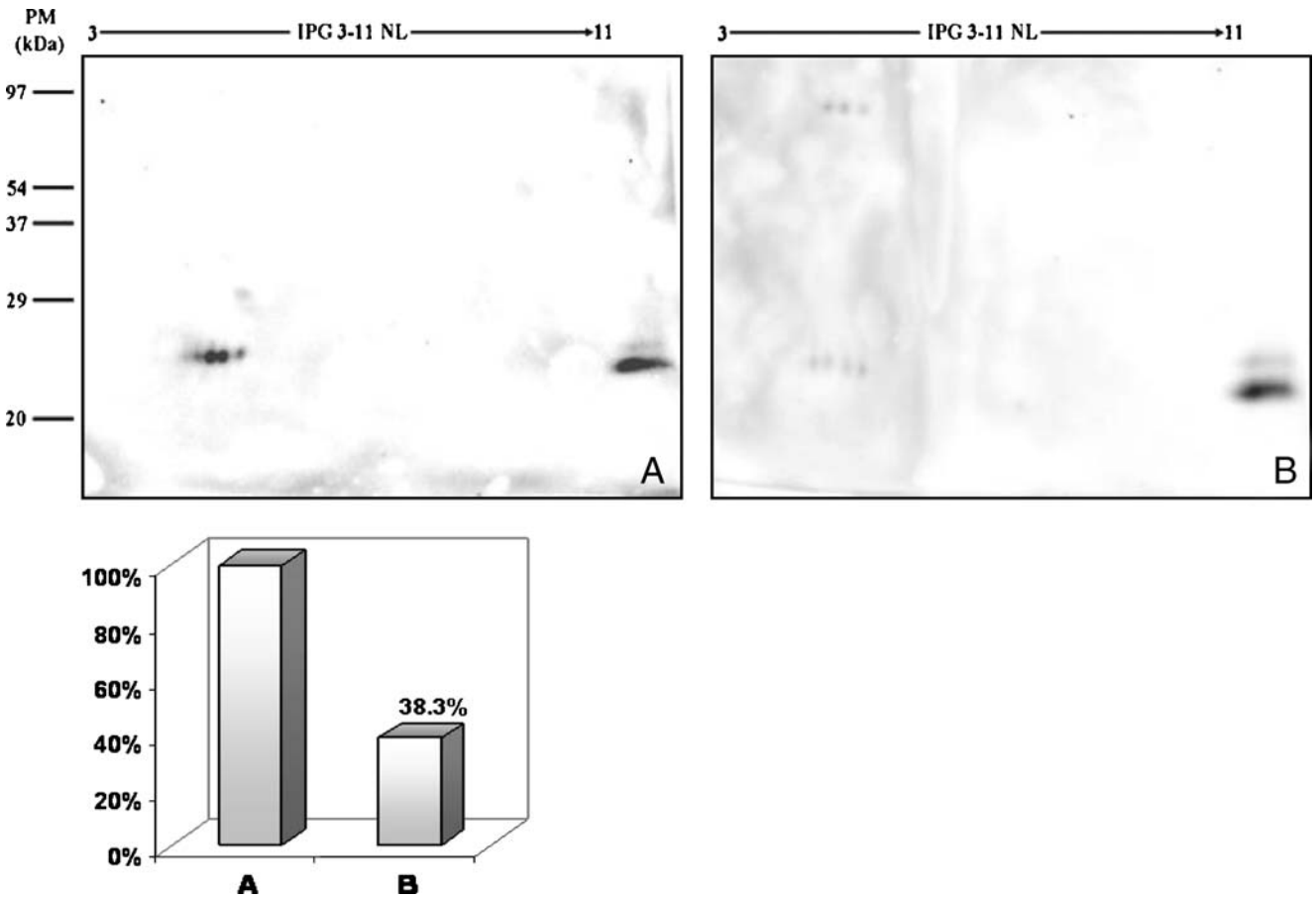


Fig. 3 2D immunoblotting representing endometrial GdA expression during the proliferative phase in controls (A), endoemtritis (B) biopsies. Total relative GdA content in the two phases is reported in the graph.

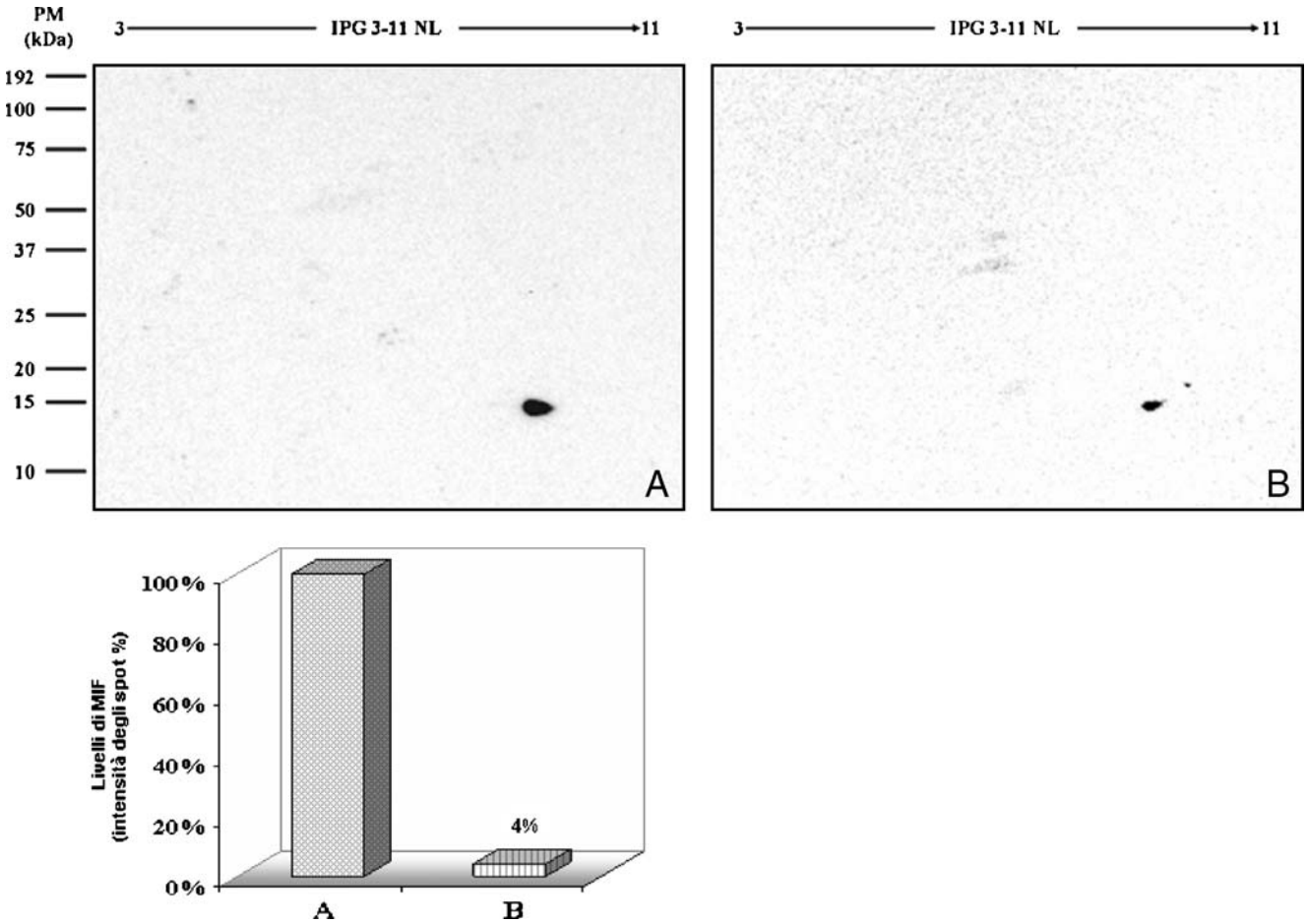


Fig. 4 2D immunoblotting representing endometrial MIF expression during the proliferative phase in controls (A), endoemtritis (B) biopsies. Total relative GdA content in the two phases is reported in the graph.

References:

1. Seppälä M, Koistinen H, Koistinen R, Hautala L, Chiu PC, Yeung WS (2009). Glycodelin in reproductive endocrinology and hormone-related cancer. Eur. J. Endocrinol.160:121–133.
2. Viganò P, Cintorino M, Schatz F, Lockwood CJ, Arcuri F. (2007) The role of macrophage migration inhibitory factor in maintaining the immune privilege at the fetal-maternal interface. Semin Immunopathol. 29:135–50.

P1_18

Transvaginal cystocele repair by the transobturator approach. Medium-term anatomic and functional results

Georges Bader, Cyril Touboul, Olivier Chanelles, Martin Koskas, Arnaud Fauconnier
Poissy University Hospital, France

Objective: The efficacy of cystocele repair using transobturator mesh appears promising, but hemorrhagic complications have been reported. The aim of this study is to assess perioperative complications and medium-term anatomical and functional efficacy.

Study design: This case series of 62 consecutive patients who underwent cystocele repair with a subvesical polypropylene mesh placed by the transobturator approach was to assess the objective (anatomic) and subjective (functional) cure rates, patient satisfaction and complications.

Results: The objective cure rate was 95.2% at a mean (SD) follow-up of 27.0 (8.4) months. One major haemorrhagic complication (1.6%) occurred. Two cases of anatomic failure (3.3%) were observed, both with recurrent grade III cystocele 6 months after surgery. Mesh exposure occurred in 6 patients (9.8%). One patient (1.6%) had de novo dyspareunia after surgery. The mean satisfaction index was 7.9/10.

Conclusions: Cystocele repair using transobturator mesh is an effective technique with a high satisfaction rate. However, there is a high risk of mesh exposure and a risk of rare but severe hemorrhagic complications.

Keywords: Anatomic results, Prolapse, Cystocele repair, Transobturator approach.

P1_19

Results of biopsy of ovaries in PCOS patients

M. Panevska, R. Zhivkova, K. Mainhard
University Hospital of Obs&Gyn 'Maichin dom', Bulgaria

We have investigated 54 patients with sterility for the period of 2 years (2006–2008). During operative laparoscopy before ovarian drilling we

have taken a small pieces of tissue from two ovaries. The material was analyzed in histopathological laboratory. The patients were divided in three groups: PCOS with endometriosis; PCOS with adhesions; PCOS with other diseases (diabetes, hyperprolactinemia). Depending from results we allowed to give the best possible prognosis for patients. After drilling we had success in regulation of menstrual cycle and pregnancies.

P1_20

Laparoscopic versus laparotomic myomectomy

S. Baulies, MT. Cusidó, M. Devesa, M. Cabero, I. Rodríguez*, R. Fábregas

Departamento de Obstetricia, Ginecología y Reproducción Humana. Departamento de Estadística. Institut Universitari Dexeus. Barcelona, España*

Introduction: Uterine myomas can cause abnormal uterine bleeding, pelvic pain, infertility depending on their location and size. The objectives of this study are, firstly to assess the safety and benefits of laparoscopic (LM) versus laparotomic (LaM) myomectomy, and secondly, to study the indications that determine the most appropriate surgical technique.

Materials and methods: A retrospective analysis from 2002 to 2007 was carried out. The following data were reviewed: myoma size, number, type and location, blood loss, and length of hospital stay. We also compared the pregnancy rate in women under 40 years.

Results: A total of 444 myomectomies were performed, 264 LaM (59.4%) and 180 LM (40.5%). Mean age and body mass index were similar in both groups.

The indications for LM were sterility (21.7%) compared to abnormal uterine bleeding (28.2%) in LaM. There were statistically significant differences between the two groups as regards the number of myomas (1.78 LM vs 4.7 LaM), the size (59.7 LM versus 79.1 for LaM), operating time (138.3 min in LM vs 121.16 in LaM), length of stay (2.1 LM and 4.64 LaM).

Transfusion was required in myomas of 100 mm and 368 gr of weight ($p<0.05$), the conversion rate to laparotomy was 10.8%. It was performed in myomas with an average size of 69 mm and a weight of 178 gr ($p<0.05$). Reoperation was done in myomas of 126 mm and 550 gr of weight ($p<=.05$).

The pregnancy rate in both groups at 1 year was 8%, and at 3 years was 60% for LM and 45% for LaM (NS).

Conclusions: -LM is usually associated with less blood loss and fewer adhesions compared to LaM. Furthermore, pregnancy rate is comparable to that expected with LaM.

-LM should be performed in women with a mean number of myomas of 4 and a maximum myoma size of 10 cm.

P1_21

Management of ectopic pregnancy—experience of Hospital Dona Estefania

S. Soares, J. Faria, C. Leitão, M. J. Nunes, R. Mira

Service of Gynecology and Obstetrics of Centro Hospitalar de Lisboa Central, Lisbon, Portugal

Introduction: The incidence of extra-uterine pregnancy is rising in developed countries, which may relate either to the improvement of diagnostic tools or with the increased use of techniques of medically assisted reproduction.This is a potentially serious condition to the women, but demands an approach as conservative as possible in order to preserve her reproductive potential.

Objectives: To analyze the most important parameters of the clinical evaluation in ectopic pregnancy, and the therapeutic approach that was used.

Study design: Retrospective descriptive study.

Population: 53 women admitted to the Hospital Dona Estefânia with the diagnosis of ectopic pregnancy from 1 January 2005 to 30 April 2009.

Method: Review of clinical files.

Results: Women's age had a mean value of 30,4 years (±4,84). The mostfrequent clinical presentation was pelvic pain associated to metrorrhagia (43,4%). Serum beta-hCG value was below 1000 mU/ml in 34% of women and between 1000 and 1999 in 20,8%. In ultrasound evaluation, the most frequent measurement of adnexial mass diameter was 30 to 39 mm (37,7%). 28% of women had increased free fluid in the cul-de-sac. The expectant management was the chosen approach for 20,7% of women, methotrexate treatment for 24,5%, laparoscopic surgery for 43,4% and open surgery for 11,3%.

Conclusion: In the Service of Gynecology and Obstetrics of Hospital Dona Estefânia, the concern for the women's future fertility and the reduction of iatrogenic damage reflected in the high rate of non-surgical treatment and the preference for the laparoscopic technique when surgery is necessary.

P1_22

Laparoscopic-Simulator Box: a simple, low cost design for gynaecological training of registrars in the North-Western Region of England

T Manias[1], S Chouliaras[2]

Royal Oldham Hospital, Oldham, UK[1], South Manchester University Teaching Hospitals, UK[2]

Introduction: Competence in Laparoscopic surgery is an integral part of core Gynaecological training in England, as described by the Royal College of Obstetricians and Gynaecologists. However, the majority of NHS Hospitals, where training is undertaken, do not have the facilities of Laparoscopic-Simulator training. The purpose of our study was to develop an affordable, easily built Laparoscopic-Simulator box, which could be used by Registrars in training.

Methods and materials: We used a web-cam connected to a PC as an image acquisition system. Then an ordinary storage box, a platform for the TV monitor, as well as braces, flat washers, and screw nuts were utilised to construct the Laparoscopic-Simulator box. Ordinary balloons filed with water were used to mimic ovarian cysts or tubal ectopics. The laparoscopic instruments and suture material was provided by the theatre co-coordinator of the Royal Oldham Hospital.

Results: The following exercises were used for training and validation of the Laparoscopic-Simulator box: ovarian cystectomy, removal of tubal pregnancy by endoloops, extracorporeal knots and endoscopic suturing. Ten registrars at different levels of training, ranging from years 1 to 5, practiced on the model and their total time of completing the task, task-specific checklist and pass/fail grade were documented. The more senior trainees had consistently higher scores than the junior ones. Finally, the total cost for building the model, excluding the PC and monitor from the cost analysis, was 50 UK sterling.

Conclusions: Development of endoscopic skills by means of a simple, low cost Laparoscopic-Simulator box is achievable in the setting of core Gynaecological training in the UK.

References:

Does box model training improve surgical dexterity and economy of movement during virtual reality laparoscopy? A randomised trial. Clevin L, Grantcharov TP. Acta Obstet Gynecol Scand. 2008; 87(1): 99–103.

Implementation of the laparoscopic simulator in a gynecological residency curriculum. Kolkman W, Van de Put MA, Van den Hout WB, Trimbos JB, Jansen FW. Surg Endosc. 2007 Aug; 21(8): 1363–8.

P1_23

Complications in laparoscopic gynecologic oncology

S. Becker, T. Fehm, R. Rothmund, K. Gardanis, R. Hornung, W. Zubke, D. Wallwiener, E. Solomayer

Tübingen University Women's Hospital, Germany

Introduction: Over the past twenty years, laparoscopy has revolutionized gynecologic surgery. In recent years, laparoscopic oncology has become the last frontiert of the minimally invasive approach. Technical and oncologic aspects must be considered. For many reasons, prospective randomized trials are difficult to conduct. The most important source of clinical information regarding the new technique remains observational. We report on different complications encounterd with the laparoscopic approach over the course of 4 years at a center for gynecologic oncology.

Methods: Over the course of 4 years, 250 patients underwent laparoscopic surgery for endometrial or cervical cancer at our institution. Patient data, intraoperative course and postoperative short term and long term complications were prospectively monitored and evaluated. The current literature was searched for similar data and historic comparisons were conducted.

Results: Between 2005 and 2008, 72 laparoscopic radical hysterectomies and 150 total hysterectomies, including pelvic and—when indicated—paraaortic lymphonodectomies were performed for cervical and endometrial cancer. 31 laparoscopic lymphonodectomies and 10 Trachelectomies were also performed. The average duration of surgery was 226 minutes (249, 212, 160, 169 for each group respectively). Bloodloss was 100 ml on average (range 0–500, 125, 93, 55, 75 respectively). On average, 17,1 pelvic lymphnodes were dissected (19,9, 16,3, 16,9, 10,8). Positive pelvic lymphonodes were encountered in 9,1% of cases (15,3%, 3,3%, 15,3%, 0%). Complications (minor, moderate and severe, including positive margins) occurred in 17% of patients (22% cervical cancer, 13,3% endometrial cancer) and included urinary tract infections (n=3) postoperative cardiac arrythmias (n=3) to reversible but pronounced paresis (n=6), major vascular lesions (n=1) and fistula formation (n=1).

Conclusion: Laparoscopic surgical techniques are suitable for oncologic interventions from a technical point of view. The rate of complications is similar or less when compared to open surgery, with notably less bloodloss as a major advantage. Because of the long operative time, complicatons arising from the positioning of the patient play an important part. Positioning of the patient as well as intraoperative surveillance of proper positioning are important factors.

P1_24

Usefulness of intraoperative ultrasound during abdominal multiple myomectomy

A. Mishina, E. Gladun, P. Harea

Department of Surgical Gynecology, Institute of Mother and Child Care, Kishinev, Moldova

Introduction: Reconstructive operations of uterus (ROU) for multiple myomas (MM) are accompanied by high rate of recurrence more than 40%, which are caused by residual tumors.

The aim of this study was to present our experience of intraoperative ultrasound (IOUS) guidance during ROU for MM.

Material and methods: The prospective study were based on 57 consecutive patients with MM, the mean age were 32.4 ±1.7 years, whom were performed ROU with IOUS which permit to detected: (i) nonpalpable nodules, (ii) defined relation between myomas and uterine cavity, and (iii) uterine vessels (criteria's were published previously (Mishina A., Gyn. Surg. 2005; 3; 223 225). IOUS was done using an 8-MHz curved array sector transducer attached to a Toshiba Just Vision 200 (Model SSA-320A, Tokyo, Japan).

Results: In 36 (63.2%) cases axial and sagital images of the uterus revealed additional non-palpable small myomas less than 2.0 cm, situated intramural and submucosal, in 26 cases (45.6%) were opened uterine cavity, especially for submucosal myomas.

Conclusion: Our case highlights the efficient application of IOUS in open reproductive procedures for MM, which allows determining the completeness of nodule excision less than 2 cm in ø; examinations of miometrium in preventing residual myomata; defining the locations of nodules to uterine artery and cavity.

P1_25

Extracorporeal laparoscopical technique in the treatment of large ovarian cysts

A. Mishina, E. Gladun, P. Harea

Department of Surgical Gynecology, Institute of Mother and Child Care, Kishinev, Moldova

Introduction: Despite the recent progress of ovarian mass treatment by laparoscopic approach, the management of large ovarian cysts is still under evaluation.

Objective: To investigate the usefulness and effectiveness of the extracorporeal laparascopical technique in the treatment of large ovarian cysts.

Materials and methods: From Jan. 2003 to Oct. 2008, 17 consecutive patients with large ovarian cysts were submitted to laparoscopic treatment. The mean age of patients was 21.7±1.4 (ranged from 13 to 34 years). Tumors size was 15.86±0.69 cm (range from 10.8 to 20.2 cm.). In three port method, one 11 mm cannula was placed in the periumbilical area, 11 mm and 5 mm cannulas were placed in the lateral abdominal incision. After grasping the cyst, laparoscopic punctured were performed for aspirated the contents. The empty cyst was removed by bringing it through the 11 mm cannula outside the abdominal cavity. Then the cystectomy was continued extracorporeally.

Results: The mean operation time was in the range of 30 to 70 minutes (mean 45.12±2.9 min). Blood loss was 100.5±15.1 ml. The mean hospital stay was 3–4 days. In all cases tumors were

removed successfully and we have prevented in all cases cyst rupture and spillage.

Conclusions: Extracorporeal technique with laparoscopically-assisted management in selected cases is a valuable alternative for laparoscopic traditional stripping in of ovarian cysts.

P1_26

Heating and hydrating the insufflating gas at laparoscopy: double-blind, prospective, randomised controlled trial—Pilot study

Juhi Siddiqui, Stephen Killick, Teresa Doto, Stephen Lindow, Kevin Phillips

Hull and East Yorkshire Hospitals NHS Trust, Hull, UK

Aim: This study has been set up to elucidate whether hot, cold, dry or wet insufflating gas affects post operative pain at laparoscopy. Heating the carbon dioxide gas to reduce pain relief has generated conflicting research results.[1–5]

Study design, materials and methods: Sixty four women undergoing laparoscopic sterilisation were randomly allocated to have the carbon dioxide as the insufflating gas for laparoscopy, hydrated (humidified) and/or heated. Hence the 4 groups were warm/wet, warm/dry, cold/wet and cold/dry. Postoperative pain was assessed and compared for each group.

The equipment used was a Wolf CO_2 insufflator (Richard Wolf Ltd, Wimbledon, UK) with heating plate, gas humidifier and gas tubing with heating coil. All procedures were performed by a single operator (SRK).

Patients were interviewed by a single interviewer (TD) at 1, 2 and 3 hours after the procedure and then by telephone on the first postoperative evening, 1, 2 and 7 days later. Pain was assessed at all three sites; wounds, pelvis and shoulder tip, at each of the time points. Thus an aggregate score of between 0–15 was given at each time period. Analgesic medication requirements were collected at the three sites of pain and at each time point using the Kruskall-Wallis test or Mann-Whitney test as appropriate. Analysis was performed on the 4 randomisation groups, the heated groups versus the non-heated groups and the hydrated versus the non-hydrated groups.

Results: 60 patients completed the study, 15 in the warm/wet group, 14 in the warm/dry group, 16 in the cold/wet group and 15 in the cold/dry group. The demographics for each group were comparable.

If all 4 groups were compared there was no statistical difference between any of the groups.

When the 2 heated groups were compared to the 2 non-heated groups there was a significant reduction in pain in the heated groups at 1 hr, 3 hr, first evening, day 2 and day 7 (Mann-Whitney U {MWU} 93; $p<0.01$, MWU 100.5; $p<0.05$, MWU 308; $p<0.05$, MWU 282; $p=0.01$, MWU 330; $p=0.05$ respectively). There was also a significant reduction in pain at 3 hr from the wound (MWU 109.5; $p<0.05$). See Table 1.

Table 1—Mean pain scores for pelvic pain at different time periods in the first week after surgery for patients receiving either warmed or cold gas (* $p \leq 0.05$)

	1hr	3hr	1st evening	Day1	Day2	Day7
All warm	4.2*	2.5*	3.9*	4.3*	2.4*	0.9*
All cold	9.7	6.6	6.4	6.1	4.6	1.8

When the 2 non-hydrated and 2 hydrated gas groups were compared there was no significant difference in any pain modality at any time point. The aggregate pain scores are outlined in Table 2.

Table 2—Mean aggregate pain scores for wound, pelvic and shoulder tip pain in the first week after surgery for patients receiving either wet or dry gas

	1hr	3hr	1st evening	Day1	Day2	Day7
All wet	16.9	12.9	15.1	15.4	8.9	3.3
All dry	13.4	9.7	14.5	14.8	9.7	2.9

It is warming, not hydrating, the carbon dioxide that makes the difference to pain.

Conclusion: In summary, heating the infused gas at laparoscopy resulted in lower levels of pelvic and wound pain at 1 hr, and pelvic pain at 3 hr, first evening and at 2 and 7 days. Hydration of the infused gas did not result in improvement of any measured parameter.

This is a small pilot study, but it does appear that heating the insufflating gas does reduce post operative pain, both immediately and in the medium term at laparoscopic sterilisation. This may be due to the simple fact that warmth tends to have an analgesic effect.

References:

1. Slim K, Bousquet J, Kwiatkowsky F, Lescure G, Pezet D, Chipponi J. Effect of CO_2 gas warming on pain at laparoscopic surgery: a randomised double-blind controlled trial. Surgical endoscopy 1999;13:1110–1114
2. Willis VL, Hunt DR, Armstrong A. A randomised controlled trial assessing the effect of heated carbon dioxide for insufflation on pain and recovery after laparoscopic fundoplication. Surg Endosc 2001;15(2):166–170
3. Mecke H, Kroll K. Does insufflation with warmed carbon dioxide reduce pain after laparoscopy? A randomised trial. Geburtshilfe Frauenheilkd 1999;59(12):611–615
4. Mouton WG, Bessell JR, Millard SH, Baxter PS, Maddern GJ. A randomised controlled trial assessing the benefit of humidified insufflation gas during laparoscopic surgery. Surgical endoscopy 1999;13:106–108
5. Beste TM, Daucher JA, Holbert D. Humidified compared with dry, heated carbon dioxide at laparoscopy to reduce pain. Obstetrics and Gynecol 2006;107(2):263–268

P1_27

A ten-year experience in surgical treatment of benign adnexal masses in Rijeka, Croatia

M. Klarić, P. Đorđević, D. Vejnović, T. Sušanj, B. Denona, L. Gačanin, H. Haller

Department of Obstetrics and Gynecology, Clinical Hospital Centar, School of Medicine, University of Rijeka, Rijeka, Croatia

Objective: To assess the surgical approach and outcome among women with benign adnexal masses.

Methods: We conducted a retrospective study among women who underwent surgical procedures due to adnexal masses during a period of 10 consecutive years (1.1.1999.-31.12.2008.). The following characteristics were analyzed: patients' age, ultrasound features, CA-125 values, type of surgical procedures (laparoscopic, laparotomic, and combined—abdominal/laparoscopic–vaginal), total intraoperative

and postoperative complications, operative time, conversion to laparotomy and histological characteristics of the tumor.
Results: The results of all surgically treated benign adnexal masses were observed and presented. All the patients were scrutinized by age and generative period. The number of both surgical approaches was shown as well as conversions to laparatomy. Number ratio among the two approaches changed during the period, in favor of laparoscopic procedures. All operative complications were recorded and characterized as rare. All of adnexal masses' histological findings were also presented. The mean (range) operative time and hospital stay were shown for laparoscopic and open surgery procedures.
Conclusion: In the observed period there is an obvious increase in laparoscopic procedures in the treatment of benign adnexal pathologies with resultant shorter hospital stay.During the observed period there is an increase in size of adnexal masses, and specter of benign histological pathologies treated through laparascopic approach. Total intraoperative and postoperative complications among all procedures are rare.

P1_28

Laparoscopy vs. laparotomy in the treatment of uterine myomas, a ten years experience in Rijeka, Croatia
D. Vejnović, T. Štimac, I. Krištofić, P. Đorđević, M. Klarić, H. Haller
Department of Obstetrics and Gynecology, Clinical Hospital Centar, School of Medicine, University of Rijeka, Rijeka, Croatia

Objective: The aim of this study includes a retrospective comparison of myomectomies performed during a ten years long period by laparotomy and laparoscopy.
Methods: Study group includes patients with myomas size less than 80 mm in diameter. The indications for surgery were, mostly, pelvic pain and abnormal bleeding. There were no differences according to age, parity, BMI and number and location of myomas between two groups of patients. Operative time, surgen's proficiency, blood loss, transfusions rate, fever, antibiotics and analgesics use and length of hospital stay were analyzed.
Results: Duration of operative procedure were longer in laparoscopy group, while the use of analgesic within 48 hours as well as the decrease in the hemoglobin concentration were significantly greater in laparotomy group. Length of hospital stay after laparoscopy was nearly twice shorter than after laparotomy.
Conclusions: The duration of the operative procedures was slightly longer in the laparosopic group.
Laparoscopic surgery of myomas less than 80 mm on diameter offers a benefits of less blood loss, lower analgesics use and faster postoperative recovery.

P1_29

Future fertility after surgery, medical or expectant management of ectopic pregnancy
Garcia Berrio, Rocio; Ochoa Perez, Beatriz; Cardinali, Fernando Daniel; González Hinojosa, Jerónimo; Delgado Espeja, Juan Jose; Zapico Goñi, Alvaro
Hospital Universitario Príncipe de Asturias, Alcala de Henares, Spain

Objectives: Future fertility in patients with a history of ectopic pregnancy according to the applied treatment.
Material and methods: To evaluate the number of pregnancies and the outcome of those depending on the treatment applied to 162 patients diagnosed with ectopic pregnancy between January 2006 to February 2009.
Results: Of the 162 patients diagnosed with ectopic pregnancy at our center only 70 women have been achieved, of whom 66% (46 women) wanted a new pregnancy.
There were a total of 43 pregnancies, regardless of the treatment (93.5%). 65% were normal pregnancies of which (60.7% had been treated with methotrexate, 28.6% needed surgery and 10.7% expectant attitude). 7% underwent miscarriage. And 4.6% of the women suffered a further ectopic pregnancy (two cases, treated with methotrexate and salpinguectomy respectively).
At present ten patients are pregnant (23.4%), seven women (70%) had been treated with methotrexate, 2 patients required surgery (20%) and 10% of these pregnant women opted for expectant management.
58.1% of women treated with methotrexate achieved a subsequent pregnancy, while those treated surgically were pregnant at the 32.6% of cases. Those patients that were chosen to follow expectant management obtained 9.3% of pregnancies.
Patients that required surgery were treated by laparoscopic route in all cases, performing.
Conclusion: Although the type of treatment used in ectopic pregnancy is important, there are other factors that interfere with future fertility. In our series the presence of an ectopic pregnancy affects with the future fertility of the patient, but the number of subsequent pregnancies was high (93.5%). Those who received methotrexate had better reproductive outcomes. Nevertheless the recurrence was low, 4.6%, regardless of treatment.

P1_30

Management of ectopic pregnancy: surgical vs medical treatment or approach
Ochoa Perez, Beatriz; Garcia Berrio, Rocio; Cardinali, Fernando Daniel; González Hinojosa, Jerónimo; Delgado Espeja, Juan Jose; Zapico Goñi, Alvaro
Hospital Universitario Príncipe de Asturias, Alcala de Henares, Spain

Objectives: To Evaluate the management of ectopic pregnancy by different treatments and the need for surgery as a first option.
Material and methods: A retrospective study (2006–2008) of 162 women diagnosed with ectopic pregnancy.
Results: 84 patients (51.9%) received medical treatment (methotrexate), 47 (29%) needed surgery initially and 29 women (17.9%) opted for expectant attitude.
The initial response to treatment was favorable (71%).
With regard to medical treatment, 95% required a single dose and 5% required a second dose for the resolution of the process. The complication rate, excluding rupture of the ectopic pregnancy, were 2.5%: the most common were abdominal pain that resolved with analgesia in all patients.
Six patients (7.06%) suffered rupture of the ectopic pregnancy and requiring surgery. Four of the six patients followed expectant treatment before the rupture.
In our series, 47 women required surgical treatment (29%). Twenty-nine of them (62%) due to acute abdomen and / or hypovolemic shock; elective surgery in thirteen women (29%), four of them to failure of medical treatment; and location of ectopic (ovarian) in four patients (9%).
We opted for laparoscopic surgery in 33 women (70.2%), making salpingectomy (87.8%) and salpingostomy (12.2%). Thirteen women

were subjected to laparotomy (21.8%). The indication was hemodynamic instability under going salpingectomy (92.3%) and anexectomy (7.6%). Two patients required conversion to laparotomy, after no resolution of the bleeding by laparoscopy and a bowel perforation.
Conclusion: Medical treatment with methotrexate, in the absence of surgical abdomen is the first option in the management of ectopic pregnancy. Reserving laparoscopic surgery, for patients with contra-indications (acute abdomen, hemodynamic instability, etc) refusal of medical treatment or after failure of it.

P1_31

Indications, techniques, and complications of laparoscopic myomectomy

A. Protopapas, I. Chatzipapas, A. Liapi, S. Athanasiou, A. Vlachos, K. Blanas, S. Milingos, A. Antsaklis
1st Department of Obstetrics & Gynecology, University of Athens, "Alexandra" Hospital, Athens, Greece

Objective: To present our results (indications, techniques, complications) from the laparoscopic management of patients with fibroids.
Materials and methods: We analyzed 112 patients with fibroids managed in our Department with laparoscopic myomectomy, during the period: 2003–2009. Indications for the surgical management of fibroids included: presence of symptoms (n=36), rapid growth (n=13), co-existence of other pelvic pathology (n=32), the patient's wish for removal before pregnancy attempt (n=8), and subfertility (n=23).
Results: Of the total number of 144 excised fibroids, 28 were intra-mural and 84 were subserous. Two cases had cervicovaginal fibroids. The mean number of excised fibroids per patient was 2.8 (range: 1–7) and their mean diameter was 4.8 cm (range: 2–10). Our suturing technique was modified during the study period: from a one layer (2003–2005), to a multi-layer technique (2006–2009). Median duration of the procedure was 112 minutes (range: 45–270). 4 cases required transfusion. In 2 cases with large fibroids laparoconversion was necessary for severe hypercapnia, and in 1 case suturing was performed laparoscopically-assisted for the same reason. We observed so far a total of 14 pregnancies. Of these, 8 cases had a full-term delivery, 3 a delivery before 37 weeks, and 3 patients had a first trimester abortion. A caesarean section was performed in 10/11 cases.
Conclusions: Laparoscopic myomectomy is a safe procedure with a low rate of intra-operative complications. Mastering the suturing technique and the use of a sofisticated morcellator have contributed in the significant reduction of our operative times. Pregnancy after laparoscopic myomectomy appears equally safe.

P1_32

Devolopment of laparoscopic approach in a General Hospital

R.M. Díaz, E. Cazorla, M. Marín Palazón, L. Álvarez, N. Siegert, M.E. Ceballos
Department of Obstetrics and Gynecology, Hospital de Torrevieja, Alicante (Spain)

Objective: Minimally invasive surgery is the gold standard in the most of gynecologic pathologies both benign and malignant ones. Adequate indications with the necessary learning curves and technical support will change the global hospital results in terms of costs and benefits. If this is implemented in a "young" hospital we will be able to check whether the objectives have been met.
Material and methods: Torrevieja Hospital is a general hospital of 260 beds, 39 of them are attached to the Department of Obstetrics and Gynecology. We analyzed all the laparoscopies performed in the first four months of implementation and development of this technique from 01-02-09 to 31-05-09 (Period 1) compared with the same period of the previous year (Period 2).
Results: 180 patients were surgically treated in Period 1 compared with 34 in Period 2 by abdominal, vaginal or laparoscopic approach, excluding ambulatory surgery. In the Period1 laparoscopy was performed in 30% of the cases, with a progressive increase in this time. In the Period 2 only 14% of cases were laparoscopies. The laparoscopic procedures performed were adnexectomy or cystectomy for benign adnexal pathologies, total laparoscopic hysterectomies (TLH), myomectomies and TLH with lymphadenectomy. We present and discuss the indications, results and complications as well as the variations in days of hospitalization and costs-benefits changes.
Conclusion: Implementation of minimally invasive surgery in the hospital practice supposes a great benefit in terms of costs. On the other hand, it allows to increase the number of surgeries.

P1_33

Uterine adenomyosis—A new classification system

N. Bardis, G.A. Pistofidis, P. Balinakos, M. Filippidis
Athens, Greece

Objective: Adenomyosis has until now been clinically classified, according to Thomas Cullen, into nodular and diffuse. We propose a new classification system based on demographic, clinical, operative, histopathological and immune-histological data.
Materials and methods: Retrospective study including 42 women who underwent laparoscopic treatment of uterine adenomyosis. Statistical analysis was performed using the SigmaStat 2.03 statistical software.
Results: Eighteen (43%) patients were diagnosed with diffuse adenomyosis, 7 (16.5%) with sclerotic and 17 (40.5%) with nodular. Pelvic pain and dysmenorrhoea was the primary symptom in 41% of women with nodular adenomyosis in comparison with 14% and 29% of those with sclerotic and diffuse respectively ***(p: NS)***. Menorrhagia was the main symptom in 89% of women with diffuse adenomyosis compared with 14% and 29% of those with sclerotic and nodular ***(p=0.001)***. There was also a statistically significant difference in the age between patients with nodular adenomyosis (mean 37.5 yrs) and those with diffuse or sclerotic (mean 45.7 yrs) ***(p≤0,001)***.
Conclusions: Based on our observations we classify uterine adenomyosis in 4 types: Diffuse, Sclerotic, Nodular and Cystic (adult and juvenile) adenomyosis. The latter is rare and did not occur in our study population but since it does not fit in any of the above categories it needs a class of its own.

P1_34

ICSI outcome using epididymal and ejaculated human sperm

Patrizia Falcone, Vincenzo Lofiego, Ricci Sandra, Cecilia Monacci, Luca Mencaglia
Florence Centro di Chirurgia Ambulatoriale, Firenze

Introduction: Intracytoplasmic sperm injection (ICSI) greatly improves the fertilization and pregnancy rates compared to in

vitro fertilization using epididymal sperm. Ejaculated sperm undergoes morphological and physiological changes during normal spermatogenesis which are not present in epididymal sperm. These differences may influence the fertilization rate, embryo development and pregnancy rate with ICSI. The purpose of the present retrospective study was to evaluate the fertilization rate, embryo quality and pregnancy rate using epididymal and ejaculated sperm with ICSI.

Figure 1: Ejaculated sperm

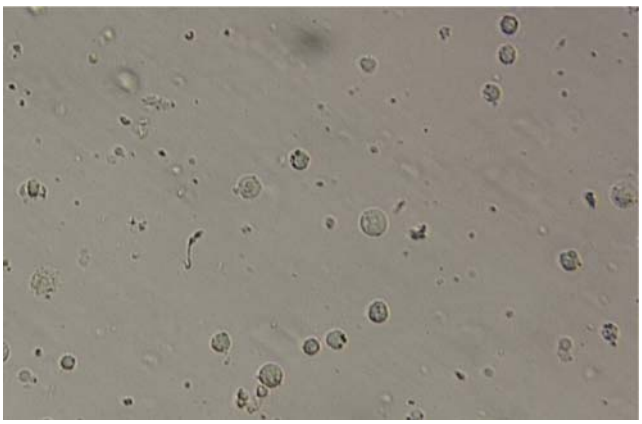


Figure 2: Epididymal sample

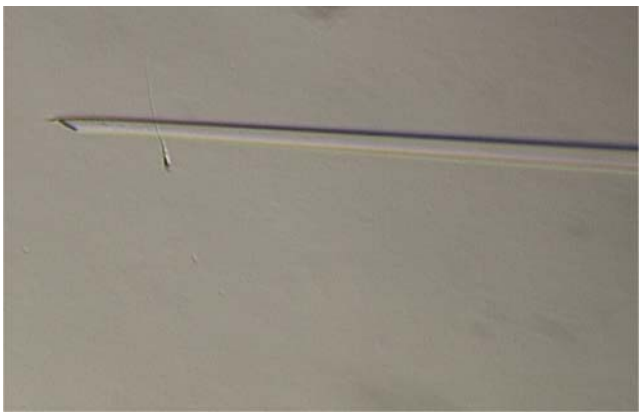


Figure 3: Ejaculated sperm in ICSI

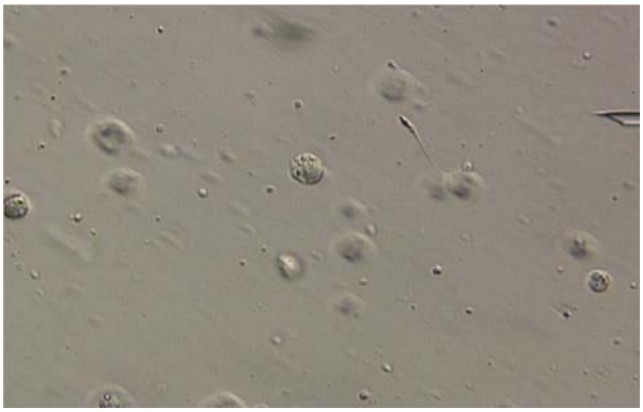


Figure 4: Epididymal sample in ICSI

Material and methods: One hundred-eleven ICSI cycles were analyzed between 2004 and 2008 years. Epididymal sperm was obtained by microsurgical epididymal sperm aspiration. Patient age (range 32– 36 years), ovarian stimulation and modality of transfer were comparable. A maximum of three oocytes (MII) to cycle were microinjected. Oocytes were evaluated for fertilization (2PN) 16–18 hours after microinjection. Embryo transfer was performed on day two and all the embryos were evaluated for blastomeres number (cleavage stage) and morphology at the moment of their transfer.

Figure 5: Oocyte in MII

Figure 6: Oocyte microinjected with ICSI

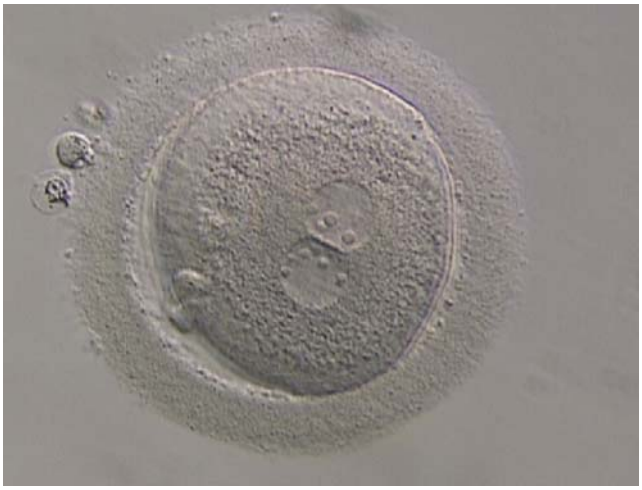


Figure 7: Zygote (2PN)

Embryos morphology was analyzed on the following criteria:

a) Grade 1: Symmetrical and equal size of blastomeres.
b) Grade 2: Slightly symmetrical and slightly different size of blastomeres
c) Grade 3: Uneven and asymmetrical blastomeres

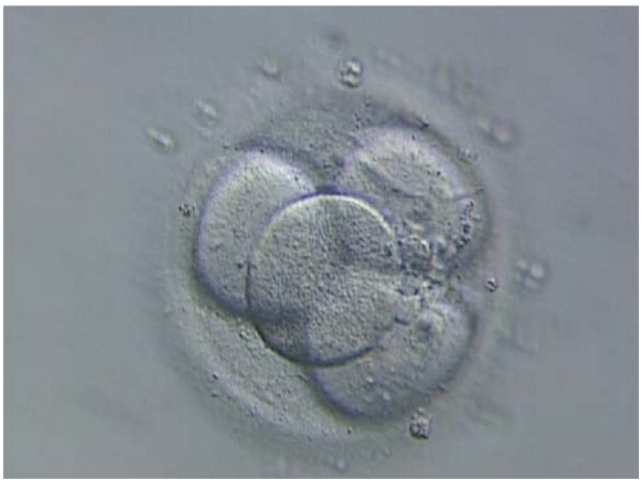


Figure 8: Embryo Grade 1

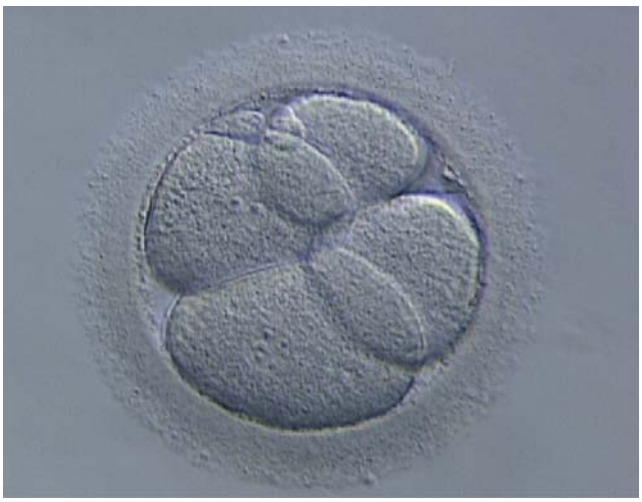


Figure 9: Embryo Grade 2

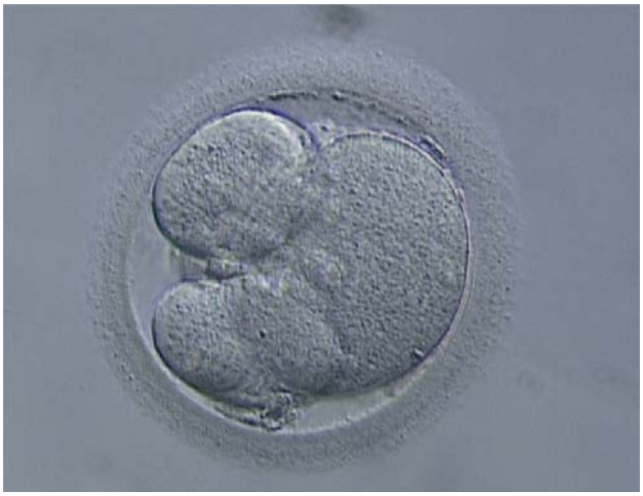


Figure 10: Embryo Grade 3

Images kept from AIDA recording system video, HD monitor and TFT touch screen monitor by Karl STORZ.

Results:

	Ejaculated	Epididymal
Cycles	88	23
Oocytes microinjected	247	68
(MII)	206 (83.4%)	53 (77.9%)
Fertilization (2PN)	2.5	2.4
Embryos Transferred	67.5%	49.1%
Mean	20.9%	35.8%
Embryos Grade 1 rate	11.6%	15.1%
Embryos Grade 2 rate	37.8%	27.3%
Embryos Grade 3 rate	19.9%	13.2%
Pregnancy Rate		
Implantation Rate		

We didn't note any statistically significant differences in the fertilization, pregnancy and implantation rates using ejaculated and epididymal sperm.

One and two embryos grade rates were significantly different between ejaculated and epididymal sperm used with the ICSI technique. The results were obtained from student's t- test and ^{2}-test. The significance level was set at $P<0.05$.

Conclusion: We obtained similar fertilization, pregnancy and implantation rates using ejaculated and epididymal sperm. Moreover we observed that embryos deriving from the ejaculation sperm are morphological better than those obtained from the epididymal sperm, probably for changes present in the mature spermatozoa which may not be found in the epididymal spermatozoa.

P1_35

Fertilization rate is an indipendent predictor of implantation rate

V. Lofiego, P. Falcone, S. Ricci, C. Monacci, L. Mencaglia
Florence Centro di Chirurgia Ambulatoriale - Florence Day Surgery Free Standing Unit – Florence, Italy

The aim is to determine whether fertilization rate serves as a biological assay, reflects oocyte quality, and may be used to help predict implantation rate. In this study were retrospectively included couples undergoing in vitro fertilization cycles from 2005 to 2007, after the new italian IVF law (D. lgs. 40/2004). We compared the implantation rate among cycles with high versus low fertilization rate. Univariate analyses were performed to determine the association of implantation rate with potential confounding variables: age, day-3 follicle-stimulating hormone level, day-3 estradiol level, antral follicle count, oocyte number, cycle attempts, embryo grading, and number of embryos transferred. Multivariate analysis was then performed to determine whether the fertilization rate remained an independent predictor.
We noted that higher ICSI fertilization was statistically significantly associated with the implantation rate. After adjusting for variables associated with implantation rate, fertilization rate for ICSI remained a strong independent predictor of implantation. Furthermore, higher IVF fertilization was statistically significantly associated with implantation and remained a statistically significant predictor after adjustment. In conclusion the fertilization is a strong, independent predictor of implantation rate and may be useful in modeling to guide decision making for the number of embryos to transfer.

P1_36

Oocyte Corona Cumulus Complex (OCCC) Morphology and Outcome of FIVET

Patrizia Falcone, Vincenzo Lofiego, Ricci Sandra, Cecilia Monacci, Luca Mencaglia
Florence Centro di Chirurgia Ambulatoriale - Florence Day Surgery Clinic – Florence, Italy

Objectives: Fertilization In Vitro Embryo Transfer (FIVET) is a powerful technique of fertilization achievement in presence of a normal sperm. The purpose of the present study is to evaluate the contribution of "oocyte corona cumulus complex " (OCCC) to the success rate of FIVET. The maturation of the oocyte is associated with the expansion of the corona-cumulus complex. Implantation and pregnancy rates were determined after the transfer of embryos deriving from different OCCC, based on their morphologic appearance evaluated at the moment of their pick-up.
Material and methods: 75 couples undergoing FIVET were retrospectively included in the present study. Sperm was evaluated according to WHO criteria.. Couples were splitted into three groups, according to the OCCC morphology:

a) *First grade:* a sunburst-like corona radiate and a well-expanded cumulus is generally associated with a metaphase II oocyte, and is classified as a pre-ovulatory or mature oocyte;
b) *Second grade:* corona radiate is compacted but still distinct from the cumulus. It is usually associated with a metaphase I oocyte, with absence of the first polar body; this oocyte is classified as immature or intermediate;
c) *Third grade:* a tightly packed cumulus and corona radiate layer is classified as very immature; this normally corresponds to an oocyte that is at prophase 1 stage.

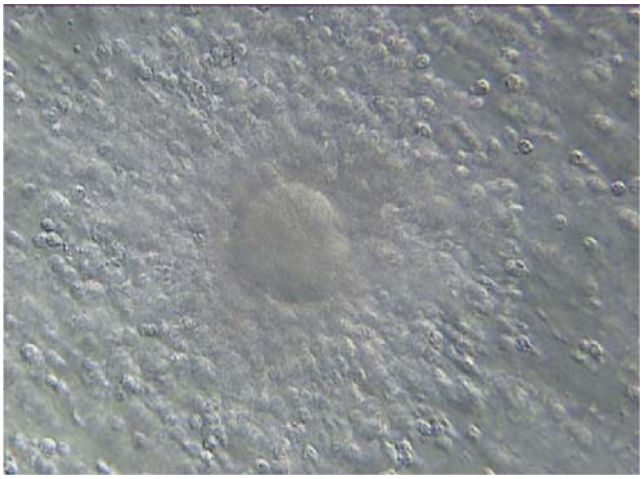


Figure A: First grade OCCC sunburst like, also called ripened. The corona and cumulus layers are very well defined.

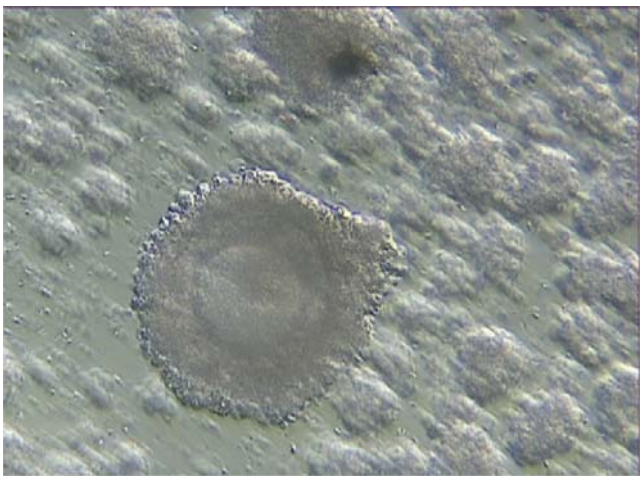


Figure B: Second grade OCCC. Corona radiate is compacted but still distinct from the cumulus

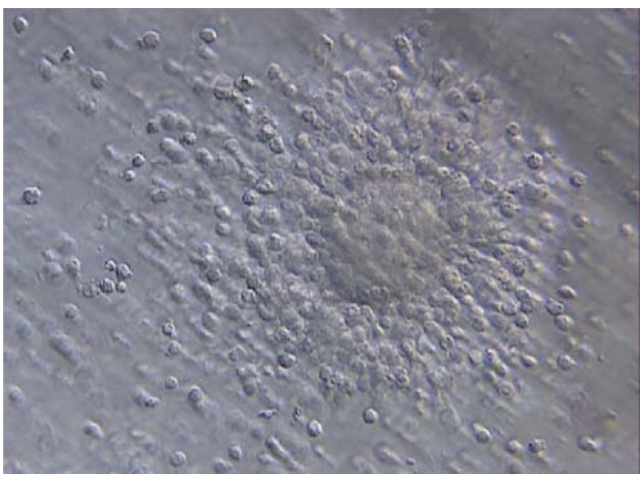


Figure C: Third grade OCCC. The corona and cumulus are tight together

The embryos derived from these oocytes were divided into two groups: 1) embryos deriving from the first OCCC grade, 2) embryos deriving from the second and/or third OCCC grade. Patient age, number of embryos transferred and modality of transfer were comparable.

Figure D: Fivet insemination

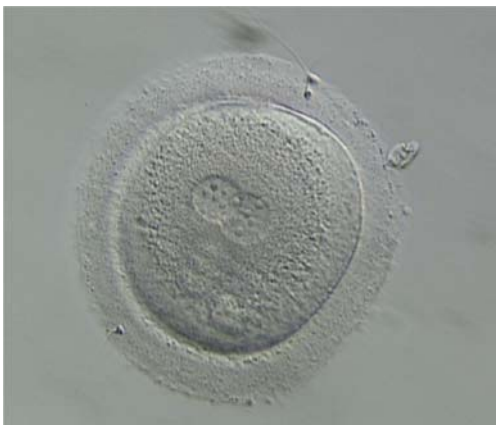


Figure E: Zygote (2PN) derived from oocyte inseminated with Fivet

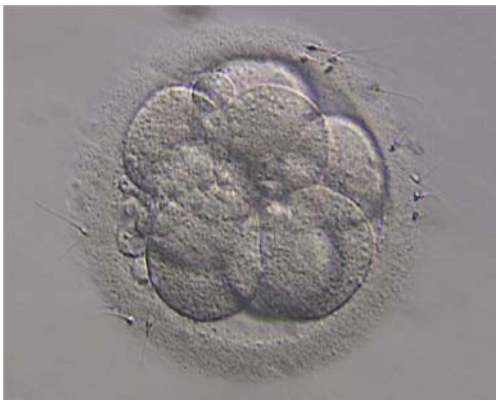


Figure F: Embryo derived from oocyte inseminated with Fivet

Images kept from AIDA recording system video, HD monitor and TFT touch screen monitor by Karl STORZ.

Results: *Pregnancy and implantation rate according to the OCCC morphology:*

	Group 1	Group 2	TOTAL
N. of embryos	**144**	**76**	**220**
N. of transfer	**58**	**36**	**94**
Mean n. embryos transferred	**2,5**	**2,1**	**2,3**
Pregnancy rate	**39,7%**	**19,4%**	**33,0%**
Implantation rate	**20,1%**	**11,8%**	**17,2%**

Implantation and pregnancy rate in group 1 was respectively 20,1% and 39,7%, while in group 2 it was 11,8% and 19,4%. In total we evaluated the result of 94 transfers with a pregnancy rate of 33,0% and an implantation rate of 17,2%.

The pregnancy rates (with the FIVET technique) were significantly different between oocytes deriving respectively from the first and the second group.

The results were obtained from X^2–test. The significance level was set at $P<0,05$.

Conclusions: We statistically note a significant difference in the pregnancy rate, but not in the implantation rate**.** Cycles with transfer of embryos from oocytes belonging to the OCCC morphology first grade resulted in a much higher pregnancy rate than those transfer cycles of embryos from oocytes belonging to the OCCC morphology second and third grade.

These data suggest that the OCCC quality greatly affects the success rate when using FIVET.

P1_37

Mild male factor infertility: IVF and ICSI technique on sibling oocytes

Patrizia Falcone[1], Vincenzo Lofiego[1], Sandra Ricci[1], Cecilia Monacci[1], Paola Piomboni[2], Luca Mencaglia

[1]*Florence Centro di Chirurgia Ambulatoriale - Florence Day Surgery Clinic – Florence, Italy*

[2]*Department of Pediatrics, Obstetrics and Reproductive Medicine, University of Siena, Policlinico S. Maria alle Scotte, Siena, Italy*

[2]*Center for Diagnosis and Treatment of Couple Sterilità, Azienda Ospedaliera Universitaria Senese, Policlinico S. Maria alle Scotte, Siena, Italy*

Objective: In assisted reproductive technology (ART) the application of the most appropriate technique between in vitro fertilization IVF or intracytoplasmic sperm injection (ICSI) is performed with the aim to guarantee embryo transfer and to have the highest probability of pregnancy. The choice would be based on different factors as the patient's clinical history, the male fertility status and the results of previous attempts, in vivo or in vitro. There are no widely accepted criteria, so decisions are often empirical and can lead to failure of fertilization or, on the contrary, to the abuse of ICSI.

In this study, we would like to compare the embryo quality and the pregnancy rate in sibling oocytes treated by conventional IVF or ICSI in couples with male partners affected by moderate oligoasthenoteratozoospermia.

Materials and methods: We selected 80 couples undergoing to the first ART cycles with mild male sterility factor. In each of them 1 or 2 oocytes were inseminated with conventional IVF and the other 2 or 1 are microinjected.

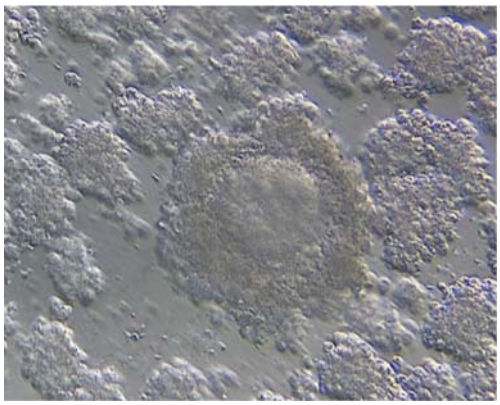


Figure 1: FIVET

Figure 2: ICSI

Results: Couples with oocyte fertilization after both IVF and ICSI had slightly better semen characteristics than those with oocyte fertilization only after ICSI, but this difference was not significant.

A total of 24 couples out of *80* IVF/ICSI attempts had a fertilization after ICSI (30.0%), 49 result in fertilization after both IVF and ICSI (61.3%), 2 attempts showed a fertilization after IVF (2.5%) and 5 couples (6.2%) didn't have any fertilization.

As expected, the fertilization rate was higher in ICSI than in IVF (61.2% vs 88.0%); Any statistically significant difference was observed in embryo morphology and cleavage rates between IVF and ICSI performed in sibling oocytes.

A mean of 2.1±1 embryos were transferred in each patient: a percentage of 0.8±0.6% of embryos derived from IVF technique and 1.4±0.6% came from ICSI. A total of 75 embryo transfers were performed (93.8%) and 28 clinical pregnancies were obtained (37.3%).

Figure 3: Zygote (2PN) derived from oocyte inseminated with FIVET

Figure 4: Zygote (2PN) derived from oocyte inseminated with FIVET

Figure 5: Embryo derived from oocyte inseminated with Fivet

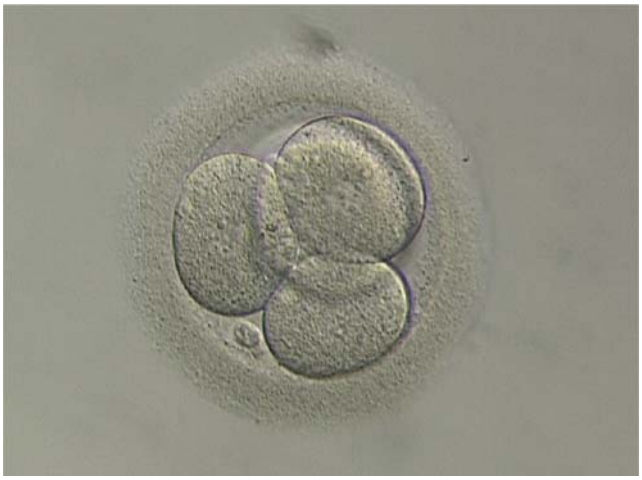


Figure 6: Embryo derived from oocyte inseminated with ICSI

Images kept from AIDA recording system video, HD monitor and TFT touch screen monitor by Karl STORZ.

Conclusions: The application of IVF/ICSI on sibling oocytes in mild male factor infertility is important to guarantee embryo transfer and to have the highest probability of pregnancy.

Besides in the subsequent cycles we can use the technique best suited to couples minimizing white costs maintaining high rates of fertilization in either ICSI or IVF.

P1_38

Predictive value of fertilization rate for a pregnancy rate in IVF

Vincenzo Lofiego, Patrizia Falcone, Ricci Sandra, Cecilia Monacci, Luca Mencaglia

Florence Centro di Chirurgia Ambulatoriale - Florence Day Surgery Free Standing Unit – Florence, Italy

Introduction: ICSI is a recognized technique in assisted reproduction which has opened a new era in the management couples with poor sperm quality and poor fertilization rate. We analyzed results in term of implantation rate versus fertilization rates in patients undergoing their first IVF cycle to evaluate the fertilization rate as predictive value for a subsequent IVF or ICSI cycle.

Materials and methods: In this study were retrospectively included 124 couples undergoing in vitro fertilization cycles from 2002 to 2003, before the new italian IVF law (D. lgs. 40/2004). The results of IVF cycles were evaluated. Only couples with 5 or more oocytes and with ≥ 3 mil/ml motile spermatozoa after preparation were included in this study. We divided the patients in three groups depending their fertilization rates and the pregnancy and implantation rate of each group were evaluated.

Three or four embryos were transferred when available, depending on the patient's age and the morphology of embryos.

Fertilization rate	group 1 (5–30%)	group 2 (31–60%)	group 3 (61–100%)	Total
N. cycles	11	34	79	124
N. transfer	10	34	79	123
Total N. embryos/tr	32	116	308	456
N. embryos/transfer	3.2	3.4	3.8	3.7
Pregnancy rate/transfer	10%	23.5%	38.8%	34.1%
Implantation rate	6.2%	8.6%	14%	12.5%

Results: The main ages of patients, the sperm count and the patient management in the three groups were comparable. In group 1 the fertilization rate was between 5 and 30% and in 11 cycles we obtained a pregnancy and implantation rates of 10% and 6.2% respectively. In group 2 where the fertilization is between 31 and 60%, in 34 cycles the pregnancy rate and implantation rate were 23.5% and 8.6%.

In group 3 the fertilization rate was between 61-100%, in 79 cycles the pregnancy and implantation rate were 38.8% and 14%. The main number of embryos transferred in each group of patients was 3.2 in group 1, 3.4 in group 2 and 3.8 in group 3.

Conclusions: The implantation rate is directly related to the fertilization rate because of the selection of the best embryos for transfer and in some cases the transfer of more than three embryos is a good choice for the positive result. Considering the fertilization rate as predictive value, we can use this result to program successive cycle choosing the best option between IVF or ICSI.

P1_39

Influence of embryo transfer distance from the uterine fundus on the implantation rate after IVF

Valentina Cuccolo (**), Sabina Consigli (*), Emmanuel Lugo (*), Vincenzo Lofiego (*), Sandra Ricci (*), Patrizia Falcone (*), Luca Mencaglia (*)

Infertility Division of Florence Centre of Ambulatory Surgery (*), Italy Gynecological and Obstetrics Clinic of Hospital Maggiore of Novara (**), Italy

Background: The success of IVF–embryo transfer is multifactorial. The influence of the depth of replacement into the uterine cavity has been postulated as being important in association with endometrial thickness. The aim of this study is to investigate if there is some difference between the distance from the high and the low echogenic transfer dot and the fundal endometrium after embryo transfer carried out under transabdominal ultrasound guidance between patients with implantation after IVF and patients with IVF failure.

Methods: the study includes two groups of patients who have undergone treatment for IVF since January 2008 to December 2008. The group I includes 84 patients who had implantation after IVF; the

group II includes 84 patients with similar features of the first group, but with IVF's failure.
Results: There was equal distribution between both groups regarding the baseline characteristics of the patients including age, number and quality of transferred embryos and endometrial thickness at the day of embryo transfer. In the two groups not appear to be any differences of the distance between the high and the low echogenic transfer dot and the fundal endometrium measured under guidance of transabdominal ultrasound: in group I the distance between the high and the low echogenic transfer dot and the fundal endometrium was respectively 15.4 ± 4.1 mm and 6.0 ± 3.1 mm and in group II was 15.71 ± 3.8 mm and 6.23 ± 3.1 mm.
Conclusions: It is therefore evident that this study shows no significant differences in the distance between the high an the low echogenic transfer dot to the fundal endometrium in both groups.

P1_40

ICSI for treatment of human immunodeficiency virus and hepatitis C virus-serodiscordant couples with infected male partner
M. Benigna**, V. Cuccolo**, P. Cirillo*, S. Consigli*, E. Lugo*, V. Lofiego*, P. Falcone*, L. Mencaglia*
**Infertility Division of Florence Centre of Ambulatory Surgery, Italy*
***Gynecological and Obstetrics Clinic of Hospital Maggiore of Novara, Italy*

Background: Assisted reproductive technology with semen washing can offer a signify-cant reduction in risk of sexual and vertical transmission of human immunodeficiency virus (HIV) and hepatitis C virus (HCV) in serodiscordant couples with infected male partner.
Methods: Among couples coming to our centre for reproductive problems from January 2004 to June 2009, we selected 112 couples with seropositive male and seronegative female: 57 couples with HIV-seropositive males, 26 couples with HIV/hepatitis C virus (HCV)-seropositive males and 60 couples with HCV-seropositive males. Sperm samples were washed and used for ICSI.
Results: 113 cycles of ICSI were performed. The mean fertilization rate was 70.34 6 20.14% (mean 6 SD). A mean number of 3.55 6 1.11 (range: 1–5) embryos of good quality was transferred for each patient. We obtained 27 pregnancies (25singletons and two twin), with a pregnancy rate per transfer of 28.2% and an implantation rate per transfer of 15.2%. The cumulative pregnancy rate was 51.2%. At follow-up, no seroconversion was detected in any patient.
Conclusions: Our data suggest that sperm wash and ICSI could be useful for reducing the risk of HIV and/or HCV transmission in serodiscordant couples with infected male wishing to have a child, irrespective of their fertility status.

P1_41

Technique and diagnostic utility of sonohysterography in subfertile patients
E. Lugo*, V. Cuccolo**, S. Consigli*, R. Guidetti*, L. Mencaglia*
**Infertility Division of Florence Centre of Ambulatory Surgery*
***Gynecological and Obstetrics Clinic of Hospital Maggiore of Novara*

Objective: determine the role of the sonohysterography in the diagnostic iter of the subfertilities patients.
Design: Retrospective observational study.
Setting: Florence center of Ambulatory Surgery, Florence (Italy).
Patient(s): One hundred ten patients with a diagnosis of subfertility.
Material and methods: saline solution was instilled in the uterine cavity through a HSG/SHG uterine injector with rigid catheter of 5 Fr (GINRAM) attached to endomat system (designed by Karl Storz) with parameter's elettronic irrigation pump of 200 mmHg per 250ml/min of flow rate. Transvaginal ultrasonography was performed concomitantly.
Result(s): 108 patients were successfully performed and only 2 patients have not performed the sonohysterography because of uterine anatomical anomalies that the access has made difficult to the uterine hollow.
Conclusion(s): saline infusion is a simple and fast technique with major compliance for the patient with a few vagal reflex.

P1_42

Methylene blue is the effective predictor of pelvic adhesions reformation
E.D. Dubiskaya, E.G. Khilkevich, A.S. Gasparov, D.S. Titov
Peoples' Friendship University of Russia, Russian Federation

Objective: To investigate the effects of methylene blue (MB) on pelvic adhesions reformation.
Materials and methods: Fifty women aged 18–37 with peritoneal endometriosis and pelvic adhesions staged 3–4 (AFS) and infertility that underwent laparoscopy. The first group consisted of 25 women with endometriosis and pelvic adhesions which were MB-treated during laparoscopy at concentration 1% in 5–7 litres volume. The rest of the patients were saline solution-treated (the control group). Before the end of laparoscopy, the patient were assigned to intraperitoneal application of 100 ml saline in the control group and 100 ml of 1% MB in the MB-treated group. The efficacy of the therapy was evaluated in 4 months during "second look" laparoscopy.
Results: There were no postoperative complications neither in the first group no in the second. In 68% of patients of MB-treated group there were no pelvic adhesions registered during second-look surgery. In 32% of patients in the first group pelvic adhesion staged 1–2 were documented. In the saline solution treated group 60% of women had pelvic adhesions staged 2.
Conclusions: Methylene blue is the effective predictor of pelvic adhesions reformation after laparoscopy surgery in patients with endometriosis and pelvic adhesions. The efficacy of MB could be explained by its antiangiogenic properties.

P1_43

Our experience in laparoscopic treatment of tubo—peritoneal infertility
V.V. Ponomarev, A.A. Zhuyko, V.V. Artyushkov, E.V. Bashirov, M.E. Vengerenko
2nd Krasnodar Municipal Hospital, Krasnodar Gynaecological Centre, Department of Endoscopic Gynaecology Krasnodar, Russia

Objective: There is no doubt that the tubo-peritoneal form of female infertility is a very difficult for restoration of reproductive function. Frequently, infectious diseases have asymptomatic clinical presentation and recurrences. So the infertility appears to be the only presentation of severe adhesions very often. IVF procedures remain

the only alternative for patients with failed reconstructive surgery. To evaluate the clinical efficacy of the salpingo-ovariolysis and terminal salpingoneostomy.
Materials and methods: A retrospective analysis on 3254 cases of laparoscopic treatment of tubo-peritoneal infertility was carried out, including rate of intrauterine pregnancy, rate of parturition and rate of extrauterine pregnancy. These surgical procedures were performed in The 2nd Municipal Hospital in Krasnodar from 2003 to 2008 inclusive. Age of patients who were subjected to surgical laparoscopy varied from 20 to 39 years. , Salpingo-ovariolysis and adhesiolysis were performed in all patients. Salpingoneostomy was used in cases of hydrosalpinx formation. There were administrated procedures of hydroperitoneum and physical therapy in postoperative period. The "second look" laparoscopy was performed for all patients with II–III degree of adhesion intensity.
Results: The rate of intrauterine pregnancy was 72,8% (2369 cases), while rate of parturition was 66,8% (2173 cases). The rate of extrauterine pregnancy was 2,9% (94 cases). All patients recovered well postoperatively. There were not any severe complications.
Conclusions: Laparoscopy is the method of choice for surgical treatment of tubo-peritoneal infertility which allows to choose the optimal postoperative management of the disease. Exposure of ovaries for improvement their functionality and lightening subsequent ovum retrieval by ultrasound aspiration fore IVF is very important in these cases when surgical reconstruction is failed.

P1_44

Laparoscopic Treatment of Cornual Gestation: How Can We Reduce Intraoperative Bleeding?
Arena S, Canonico S, Brusco GF, Affronti G
S.C. Ostetricia e Ginecologia Azienda Ospedaliera di Perugia, Perugia, Italy

Objective: Cornual gestation counts about 3% of all ectopic pregnancies and presents a hemorrhagic risk strongly higher than a tubal gestation. The mortality rate is 2% to 2.5%. The aim of our study was comparing laparoscopic cornuostomy and cornuectomy.
Materials and methods: Two patients were treated in laparoscopy for a cornual pregnancy. Treatments were compared considering operation time, intra- and post-operative bleeding, hospitalization, follow-up, complications rate. Gestational age was 9 and 8 weeks, respectively. Patients had no vaginal bleeding, no pain and hemodynamic parameters were in the range. Cornuostomy took about 120 minutes. The blood loss was about 1000 ml. The patient was transfused. Post-operative course was normal. She was discharged on the 6th post-operative day but she was readmitted just 7 days after the operation for a hematomas in the cornual area.
Results: She stays now well. Cornuectomy took about 60 minutes. Blood loss was less then 100 ml. Transfusion was not necessary. She stayed well and was discharged on the 3rd post-operative day. At discharge her serum β-HCG was lower than 100 mUI/mL.
Conclusions: Currently, laparoscopic treatment is the gold standard approach and can be safely carried out with good results in an institution with trained laparoscopists and adequate facilities. Cornuostomy is a possible treatment but gives no advantages to the patient. Cornuectomy permitted a quickest recover reducing intra- and post-operative complications. However, published data are not enough to define a correct path of treatment.

P1_45

The Related Outcome and Complication Rate in Trans—Obturator Vaginal Tape for Female Stress Incontinence Surgery Depending on the Surgeon's Experience: Comparative Studies
Laura Lukosiute, Oldas Tamasauskas, Gediminas Mecejus
Vilnius City University Hospital, Vilnius, Lithuania

Objective: To determine the influence of the surgeon's experience on the intraoperative, postoperative complication rate and the effect on quality of life in the trans—obturator vaginal tape (TOT) in the female incontinence surgical treatment.
Materials and methods: Prospective study including patients with urinary incontinence who underwent TOT in November 2006—March 2009. Two groups were defined: A—residents and B—surgeons with more then 10 personally performed TOT operations. Operative time, blood loss, post-operative morbidity, satisfaction rate were compared in groups. Differences were considered significant when $p<0.05$.
Results: A total of 74 TOT operations were performed and analyzed. Group A performed 15 operations and group B—59. No significant differences concerning mean patient age, distribution of type of disease, operating time, blood loss, complications rate were detected between groups. Overall intra-operative complication rate was 4.1%.
Conclusions: Incidence of complications was not associated with the education process. With careful patient selection and supervision of the more experienced surgeon, the results are equal to those obtained when the experienced surgeon is the prime operator.

P1_46

Argon Neutral Plasma Energy for Laparoscopy and open surgery: Recommended Power Settings and Applications
Patricia Haines, Thumuluru Kavitha Madhuri, Simon Butler-Manuel
Department of Gynaecology, Royal Surrey County Hospital, Guildford, United Kingdom

Objective: Harnessing aerospace technology and the unique properties of Argon Plasma, the PlasmaJet® system represents an entirely new approach and offers surgeons a multi-functional tool for clean, precise surgical cutting and coagulation of tissue and bone. The system is simple and safe to use, with minimal set-up or preparation required. The plasma stream from the hand piece is an electrically neutral energy source and so eliminates the risks such as lateral thermal spread, capacitive coupling or alternative site burns with minimal overshoot beyond the target area. Upon contact with the tissue, plasma energy is converted to light, heat and kinetic energy which efficiently blows away surface fluid and debris to reveal a dry surface. Following an initial assessment of the PlasmaJet® system, we have identified variations of tissue effect according to the distance of the hand piece and the power settings. We propose to introduce a simple guide of energy power settings for the optimal tissue effect, using PlasmaJet®, which incorporates the latest modifications following our initial clinical experience.
Materials and methods: Prospective, observational study was undertaken between July 08 and May 2009. Tissue effects such as

- Tissue desiccation and coagulation.
- Shrinkage and vaporisation of tissue.
- Dividing and cutting of tissue with coagulation have been recorded

Results and conclusions: Through our clinical experience of 75 cases using the PlasmaJet® and working closely with the manufacturers, we

have devised a simple, easy to use table of recommended power settings for the different applications that we have encountered.

P1_47

Laparoscopic Management of Adnexal Masses: Comparing the Pre-Operative Triage, the Intra-Operative Findings and the Histological Diagnosis

E. Manzo, S. Bhatti, K. El-Farra, M. McLachlan
Princess Alexandra Hospital, Harlow, Essex, United Kingdom

Objective: To correlate the pre-operative findings with the intra-operative and histological diagnosis in 207 cases of adnexal mass.
Materials and methods: 207 cases of suspected andexal mass were investigated by serum cancer antigen (ca)-125 and pelvic ultrasound. We compared the pre-operative findings with the intra-operative and histological diagnosis.
Results: The serum ca-125 was raised in 56 (27%) cases (cut-off of 30 U/ml). At least one suspicious feature was described on ultrasound, in 76% of cases (septa 29%, solid areas 21%, bilateral mass 26%). All but 24 (11.5%) cases were managed by laparoscopy. The reasons for conversion to open procedures were: suspected cancer in 14 (6.6%) cases and limited access in 10 (4.8%) cases. 8 (3.8%) cases of ovarian malignancy and 6 (2.8%) cases of borderline tumours were confirmed on histology.
Conclusions: Adnexal masses can be safely managed by laparoscopic surgery. The pre-operative work-up is a valuable tool in discriminating between benign and malignant tumours, however a systematic assessment of the pelvic and the abdominal organs is equally important and the features suggestive of ovarian cancer must be born in mind.

P1_48

Retrospective Review of 55 Cases of Laparoscopic Sacrocolpopexy: Anatomical Results and Peri-Operative Outcomes

E. Manzo, K. El-Farra, M. Al-Samarrai
Princess Alexandra Hospital, Harlow, Essex, United Kingdom

Objective: This is a retrospective study of 55 cases of laparoscopic sacrocolpopexy (LSCP) focused on the peri-operative anatomical results and the post-operative presentation of de novo pelvic organ prolapse and/or urinary incontinence.
Materials and method: 55 cases of laparoscopic sacrocolpopexy (LSCP).
Results: Pre-operative findings were: 2 (3.6%) cases of vaginal vault procidentia, 43 (78.2%) cases of third degree and 10 (18.2%) cases of second degree vaginal vault prolapse; 25 (45.4%) cases of second/third degree cystocoele, 32 (58.2%) cases of second/third degree rectocoele were also documented. Anatomical results were evaluated upon completion of LSCP and the vaginal vault was well supported in all cases. 32 (58.2%) cases of pelvic floor repair were performed as well as 8 TVT-O procedures. 6 weeks post-surgery, 1 case of vaginal vault haematoma, 1 (1.8%) case of faecal incontinence and 2 (3.6%) cases of de novo urinary incontinence were reported. These complications proved to be transient and resolved with conservative management. 6 months post-surgery 3 (5.4%) cases of de novo pelvic organ prolapse (1 cystocoele 1 rectocoele and 1 enterocoele) were reported. To date there are no cases of recurrent vault prolapse.
Conclusions: Laparoscopic sacrocolpopexy is a safe and effective procedure for the treatment of vaginal vault prolapse.

P1_49

Safety of Carbon Dioxide Pneumoperitoneum to Mother and Fetus during Laparoscopic Surgery

Jung-Ho Shin, M.D, Jun Young Hur, M.D.[1*], Heezoo Kim, M.D.[2], Man Sik Park, Ph.D.[3], Ae-Ra Kang, M.D.[1], Tak Kim, M.D.[1], and Sun Haeng Kim, M.D.[1]
Department of Obstetrics and Gynecology[1], Department of Anesthesia and Pain Medicine[2], and Department of Biostatistics[3], College of Medicine, Korea University, Seoul, Korea

Objective: While laparoscopy has a number of benefits, there are risks and concerns specific to laparoscopy in pregnancy. One of the most serious concerns is possible adverse effects of prolonged carbon dioxide pneumoperitoneum on maternal hemodynamics that may lead to fetal acidosis during laparoscopy. In this prospective study, we observed the fetal heart beat and maternal hemodynamic changes to evaluate the safety of laparoscopic surgery during pregnancy.
Materials and methods: Eleven consecutive pregnant women (gestational age range, 11–15 weeks) with torsion of ovarian cysts who underwent laparoscopic surgery were enrolled. Maternal blood gas values and end tidal CO_2levels were measured before general anesthesia, before CO_2 insufflations, 15 and 30 minutes after insufflations, and 5 minutes after desufflation. Fetal heart rates were also measured at the interval of 1 minute using transvaginal sonography combined with pulsed Doppler. Intraabdominal pressure was maintained below 12 mmHg during the insufflation.
Results: In spite of the changes in maternal PaCO2, pH and end tidal CO2, there were no respiratory acidosis or hypercarbia in maternal blood gas values and end tidal CO2 level. There was no fetal bradycardia or tachycardia throughout the procedures.
Conclusions: Carbon dioxide pneumoperitoneum made no significant hemodynamic change to induce fetal distress. In early mid-trimester pregnancy, laparoscopic surgery may be performed safely without any danger of fetal distress.

P1_50

Modern Approaches in Treatment of Adenomyosis

A.I. Ishchenko, E.N. Zhumanova, O.Y. Gorbenko, Y.A. Romadanova, K.V. Lyadov
Medical and rehabilitation center, Moscow Medical Academy, Moscow, Russia

Objective: Development optimum surgical correction of adenomyosis.
Materials and methods: In current of last 3 years 39 patients with adenomyosis have been surveyed. At 29 patients there was diffuse adenomyosys, at 4—the central form, at 6—a combination central and diffuse forms. The age of patients has made from 32 till 48 years (middle age 38±2,1 year). The sizes of a uterus made from 5 till 10 weeks of pregnancy (on the average 7,2±1,1 weeks). The diagnosis of adenomyosis was established on the basis of complaints of patients, a clinical picture and has been confirmed by data of transvaginal ultrasonography. The laparoscopy has been made to 21 patient, hysteroscopy—18. During operation by means of Ho-YAG laser it was formed from 10 up to 20 channels on forward, back walls and fundus of uterus and the irradiation by the laser from each channel within 30–60 seconds was spent.

Results: Duration of operation depending on access has made 35±4 and 15 2 minutes at a laparoscopy and hysteroscopy accordingly. There were no complications during operation. Blood loss during operation did not exceed 20 ml. No postoperative complications were noted. In the postoperative period of 10 patients received within 3–4 months analogues GnRH, 15 patients accepted progestogen in a cyclic mode in II phase cycle, and 14 patients have not any hormonal therapy in the postoperative period.

The period of supervision over patients has made from 6 till 12 months. At all operated patients, irrespective of presence or absence hormonal therapy, the painful syndrome, a profuseness and duration of menses has essentially decreased. At dynamic supervision according to ultrasonic research reduction of the general sizes of a uterus and the sizes of units of adenomyosis, reduction a degree of expressiveness of changes in uterus walls was marked. During the period of supervision of any patient radical surgical treatment was not required.

Conclusion: Obtained data testify to efficiency of drilling uterus by Ho-YAG laser during laparoscopy and hysteroscopy. Thus, the offered way of treatment of adenomyosis can serve as alternative to long hormonal therapy, especially at presence of contra-indications, and to radical surgical treatment, it is minimally damaging, easily transferable and allows keeping to the woman reproductive and menses functions.

P1_51

The Use of Electromechanical Morcellator in Laparoscopic Myomectomies as IVF (In Vitro Fertilization) Programme Definition Phase

V.A. Pitko, O.I. Tkachov, V.V. Grabar, O.A. Loginova
Ukrainian theoretical and practical medical centre of obstetrics, gynecology and study of reproduction, KNMU, Ukraine

Objective: Under indication for IVF in the affected women, the first stage of treatment is laparoscopic myomectomy.

Materials and methods: For that purpose, we have used a tissue grinder—the electromechanical morcellator with an endoscopic tubular knife, the removable malignant tissue being trapped with the device, following which the body of the electromechanical morcellator (tubular knife) is set in rotation to retract the cut portion of malignant tissue.

During the operation, the column-like excision of both subserous and intramural leiomyoma tissue is implemented. In the postoperative course—semiannual contraception.

Results: Of operated 23 women (candidates for IVF) affected with leiomyoma uterus, the 13 (56,5%) showed multiple tumors (3 to 7 tumor nodes); the 10 (43,5%)—solitary tumor. In 6 months, the women were undergone IVF programme. The 8 women (35%) became pregnant at the first attempt.

Of 15 (65%) women with failed IVF first attempt, the 10 agreed to a second attempt that proved successful in 4 of them (17,4%). Of 12 (52%) women that became pregnant due to IVF programme, the 6 (26%) parturiated, the 5 (21,7%) have their pregnancy in progress.

In 1 woman, pregnancy spontaneously interrupted in gestational process of 10–11 weeks.

Conclusions: Thus, we have succeeded in fecundation of 47,8% women at a rate of 2 attempts of IVF programme preceded with laparoscopic myomectomy.

Pitko V.A., M.D., Professor, Chief of Department of Obstetrics and Gynecology Kharkov National Medical University, Director of Ukrainian theoretical and practical medical centre of obstetrics, gynecology and study of reproduction, KNMU.
Tkachov A.I., M.D., docent of Department of Obstetrics and Gynecology Kharkov National Medical University, Chief of assisted reproduction technology department, Ukrainian theoretical and practical medical centre of obstetrics, gynecology and study of reproduction, KNMU.
Grabar V.V., M.D., docent of Department of Obstetrics and Gynecology Kharkov National Medical University.
Loginova O.A., assistant of Department of Obstetrics and Gynecology Kharkov National Medical University.

P1_52

Minimal invasive surgery techniques for treatment of ovarian cysts with benign indications. Laparoscopic or/and mini-laparotomy surgery. Our Department experience during the last 5 years

C.h. Grigoriadis, D. Zygouri, Gr. Derdelis, G. Bougas, E. Terzakis
Hellenic Anticancer Institute. Ag. Savvas, Greece

Objective: During the last five years we have treated 172 cases of ovarian cysts with minimal invasive surgery methods.

Materials and methods: 79 underwent laparoscopy, mean age 33.6 (18-68 y.o.) and 93 mini-laparotomy (4-6 cm Pfannenstiel or vertical incision using Alexis® Retractor), mean age 44.1 (20-75 y.o.). In order to remove the cyst especially when it is large, we use a system of a tube (d=8 mm, l=35 cm, COOK® instrument) and a build-in 16G needle over the surface of the cyst. At first, we glue the Tissue Patch^{3TM} (50mm x 50mm, Tissuemed) over the surface of the cyst. Applying negative pressure to the distant end of the tube we aspirate the liquid component of the cyst through the needle. In cases we do not use Tissue Patch we inject haemostatic glue when we pull the needle off. In mini-laparotomy, after the rotation of the Alexis retractor in the diameter of the laparoscopy we can examine the rest of the abdomen.

3 cases were converted from laparoscopy to vertical mini-laparotomy due to firm adhesions. 8 cases were diagnosed with malignancy during minimal invasive surgery methods and resulted in exploratory laparotomy. In the rest of the cases the histological examination showed 2 borderline ovarian tumors and 162 benign cysts. The average duration of hospitalization was 1.7 days after laparoscopy and 2.8 days after mini-laparotomy.

Results and conclusions: Both techniques seem to be safe even in large cysts but mini-laparotomy is safer for cysts riveted with adhesions over the rectum or the ureter. Additionally, mini-laparotomy is preferred in cases with residual functional ovarian tissue < 1 cm^3.

P1_53

Controlled Laparoscopic Drainage of Large Ovarian Cysts without Liquid Spillage

D. Zygouris, Ch. Grigoriadis, Gr. Derdelis, G. Bougas, E. Terzakis
Hellenic Anticancer Institute. Ag. Savvas

Objective: To assess the feasibility and surgical outcome of laparoscopic drainage under continuous aspiration among women with large ovarian cysts with benign indications.

Materials and methods: We conducted prospective study using a system consisting of a tube (d=8 mm, l=35 cm, COOK® instrument) with a build-in 16G needle and a Tissue Patch^{3TM} (25 mm×50 mm, Tissuemed) during laparoscopic surgery for large ovarian cysts (>10 cm) with benign indications. At first, we pass the Tissue Patch through a trocar and glue it over the surface of the cyst. Applying negative pressure to the distant end of the tube for a few seconds we perforate with the build-in needle and aspirate the cystic component. At the end of the aspiration we pull off the needle injecting haemostatic glue in cases we do not use the Tissue Patch.
18 patients (mean age 44.2 y.o. and mass index 32) underwent this type of technique and we found no liquid leakage in the abdomen during laparoscopic surgery. The average operative time was 93 min (49–140 min) and the average volume of the aspirated liquid was 160 ml (120–290 ml).
Results: The cysts were easily placed into a laparoscopic basket for extraction. In case of firm adhesions, we had a better view and maneuverability of the cyst after using this technique.
Conclusions: This technique seems to be feasible and safe for minimizing the volume of large ovarian cysts.

P1_54

Adhesiogenesis is associated with differential mRNA expression of metabolic genes

Markus Wallwienera[a], Taufiek K. Rajab[a], Bernhard Krämer[a], Andreas Hartkopf[a], Christian W. Wallwiener[b]
[a]*Department of Obstetrics and Gynaecology, Tübingen University Hospital, Tübingen, Germany;* [b]*Department of Obstetrics and Gynaecology, University Hospital rechts der Isar, Technical University of Munich, Munich, Germany*

Introduction: Two mechanisms are conceivable for adhesion formation in the context of tissue ischaemia. Either, adhesions may form secondary to a passive process where ischemic cells can no longer accomplish sufficient fibrinolysis. Alternatively, ischemia may trigger genetic changes within the ischaemic cells to actively recruit adhesions, which may provide a vascular graft to the ischemic tissue. We reasoned that such an active process would be associated increased cellular metabolism. To investigate this issue we analysed the gene expression of two pivotal metabolic genes, pyruvate dehydrogenase beta (PDHb) and succinate dehydrogenase complex subunit A (SDHa) in a validated ischaemia model of adhesion formation.
Methods: Peritoneal adhesions were created in using an ischaemic button model in female Wistar rats. Expression levels of PDHb and SDHa were analysed using quantitative PCR in native peritoneum and adhesiogenic peritoneum on the third post-operative day. Furthermore the formed adhesions were examined for macroscopic evidence of neovascularisation.
Results: Adhesions formed specifically to the ischaemic tissue by post-operative day 3. There was clear macroscopic evidence for neovascularisation of the ischaemic tissue originating from the adhesions. Gene expression for PDHb was up-regulated by 23% in the adhesiogenic peritoneum compared to native peritoneum ($p<0.01$). Expression of SDHa was up-regulated by 24% in adhesiogenic peritoneum ($p<0.01$).
Conclusion: The current study provides evidence that adhesion formation might be an active process associated with increased cellular metabolism. This novel mechanism has implications for rational prophylaxis. Future studies should validate these findings at the level of protein transcription.

P1_55

Two years follow-up of 15 patients treated with a rationally designed copolymer for adhesion prophylaxis

B. Kraemer[1*], M. Wallwiener[2*], C. Wallwiener[3], H. Hierlemann[4], A. Hartkopf[2], T. K. Rajab[1]
[1] *University of Tuebingen, Germany*
[2] *University of Heidelberg, Germany*
[3] *Technical University of Munich, Germany*
[4] *ITV, Germany*
* *The Authors above contributed equally to this work*

Objective: Currently, physical adhesion barriers are the only licensed interventions for adhesion prophylaxis in USA and Europe. These agents are applied to the traumatised areas and separate them from the surrounding tissues. One major disadvantage of the solid barriers is the fact that they cannot easily be applied laparoscopically. Therefore D,L-polylactide-ε-caprolactone-trimethylenecarbonate (PCT) copolymer was rationally designed with properties that are advantageous for laparoscopic application.
The current study aims to investigate the safety of PCT copolymer by follow-up of the patient population.
Materials and methods: PCT copolymer (D,L-polylactide-ε-caprolactone-trimethylenecarbonate) was laparoscopically applied in 15 patients admitted for laparoscopic myomectomy. Safety parameters were defined according to DIN EN ISO 14 1555. To obtain information about adverse events (AE) and severe adverse events (SAE), standardised questions were asked in telephone interviews conducted 24 months after the original operation.
Results: Of the original 15 operated patients, 20% (n=3) were lost to follow-up. The remaining 12 patients were able to reply to all our questions. No undesirable effects or severe undesirable effects were observed.
Conclusions: The PCT copolymer is fully degradable by hydrolysis into its monomers. In the current clinical trial, follow-up of the patients for complications for 3 months revealed no adverse effects. In conclusion, PCT copolymer is a potential new solid adhesion barrier. As shown in our trial the membrane is safe.

P1_56

Quantifying electrosurgery-induced thermal effects and damage to human tissue: an exploratory study using the fallopian tube as a novel in-vivo in-situ model

Christian W. Wallwiener[a], Taufiek K. Rajab[b], Bernhard Krämer[b], Keith B. Isaacson[c], Markus Wallwiener[b]
[a]*Department of Obstetrics and Gynaecology, University Hospital rechts der Isar, Technical University of Munich, Munich, Germany*
[b]*Department of Obstetrics and Gynaecology, Tübingen University Hospital, Tübingen, Germany*
[c]*Center for Minimally Invasive Gynecologic Surgery, Newton-Wellesley Hospital, Newton, Massachusetts, and Harvard Medical School, Boston, Massachusetts, USA, d Department of Obstetrics and Gynaecology, University Hospital Tuebingen, Germany*

Objective: To develop a human in-vivo in-situ model for analyzing the extent and the basic mechanisms of thermal spread and thermal tissue damage. Prospective, open, uncontrolled, non-randomized, single-center exploratory study.
Materials and methods: Eighteen adult patients undergoing open abdominal hysterectomy for benign disease. Intervention(s): Unilateral fallopian tube tissue desiccation (10 seconds) using a laparoscopic bipolar clamp at routine settings. Main Outcome Measure(s): Deep tissue temperature (thermal probe), tissue surface temperature (thermal camera), and gross and histological assessments of lesions using a newly developed composite scoring system.
Results: Lateral thermal damage (LTD; determined by lactate dehydrogenase staining), was strongly correlated with maximum desiccation temperature. Deep tissue LTD and surface LTD were linearly related. Histological and macroscopic criteria for thermal effects and damage and the corresponding scores proved functional and strongly correlated with LTD. Measurement of deep tissue and tissue surface temperatures consistently yielded complete temporal and spatial temperature distributions that were describable by the heat equation.
Conclusions: Our novel in-vivo in-situ model allows standardized, reproducible, quantitative assessment of electrosurgery-induced thermal effects and damage in human tissue. It will likely provide further insight into the underlying biothermomechanics and may prove useful in the development of safety guidelines for laparoscopic electrosurgery.

P1_57

Clinical and reproductive outcomes after laparoscopic myomectomy
I. Morcillo López, J.J. Hidalgo Mora, J. Monleón Sancho, P. Polo Sánchez, J. Gilabert Estellés
Department of Gynecology. University Hospital La Fe, Valencia, Spain

Objective: Laparoscopic myomectomy constitutes an alternative surgical technique to hysterectomy and laparotomic myomectomy in patients of reproductive age with symptoms secondary to uterine fibroids. This practice is increasingly accepted due to better results in regards to postoperative complications and post-surgical recovery but laparoscopic suturing learning curve is a limiting factor for many surgeons. Furthermore, many studies have shown evidence of better reproductive and clinical results in the quality of life of the patients that have undergone laparoscopic myomectomy.
Materials and methods: The aim of this study was to analyse the clinical and reproductive outcomes and quality of life scores in 30 women treated by laparoscopic myomectomy. We analysed retrospectively indications for surgery and characteristics of the myomas (location, type, size, and number) in order to study the correlation with variables indicating the postoperative situation of the patients, such as postoperative symptoms (pelvic pain, abnormal bleeding), quality of life (determined by the SF-36 questionnaire), reproductive results (number of gestations, abortions, preterm deliveries, cesarean, and vaginal deliveries), postoperative complications (hemorrhage, infection, hospital readmission) and recurrence rates.
Results and conclusion: This study illustrate that women undergoing laparoscopic myomectomy were significantly improved in terms of quality of life and have a lower incidence of postsurgical complications and recurrence rate.

P1_58

Laparoscopic Ovarian Drilling in Infertile Patients with Polycystic Ovarian Syndrome (PCOS): Endocrine Changes and Clinical Outcome
J. Almeida, C. Carnide, R. Ribeiro, M. Branquinho, A. Marques, H. Leite, S. Matias
Maternidade Bissaya Barreto, Centro Hospitalar de Coimbra, Coimbra, Portugal

Objective: Polycystic ovarian syndrome (PCOS) is the commonest endocrine disorder in women of a reproductive age. The aim of the present study was to evaluate the efficacy of laparoscopic ovarian drilling (LOD) on the endocrinologic, clinical parameters and reproductive outcome of infertile patients with Polycystic Ovarian Syndrome (PCOS) and to identify factors that may help to predict the outcome of LOD.
Material and methods: During the years 2000–2008, 61 anovulatory infertile women with PCOS were treated with laparoscopic electrocautery of the ovarian surface after medical treatment with inductors of ovulation failed. Serum testosterone (T), follicle stimulating hormone (FSH) and luteinizing hormone (LH), LH: FSH ratio, androgenic symptoms such as hirsutism and acne of the subjects are recorded before and after the procedure. Endocrinologic and clinical profile and reproductive outcome of the patients were analysed.
Results: Ovarian drilling was successfully employed without any surgical complications In the follow-up period, 63.3% of the subjects were recorded to have regular cycles and 41,7% pregnancy rate was achieved (10 patients became pregnant in the next 6 months after LOD). The androgenic profile (serum levels) were significantly reduced after LOD. Marked obesity, marked hyperandrogenism and/or long duration of infertility in women with PCOS seem to predict resistance to LOD. There was no evidence of a clear improvement in hirsutism or acne in women undergoing surgery.
Conclusions: The fertility prognosis and economic aspect of the procedure seem to be an attractive management for patients with PCOS associated with infertility.

P1_59

Detection of RNA HCV in human semen
P. Falcone[1], C. Lapucci[2], D. Pomarè Montin[2], V. Lofiego[1], S. Ricci[1], C. Monacci[1], L. Mencaglia[1]
Florence Centro Chirurgia Ambulatoriale (1), Via di Careggi 38, 50139 Florence, Italy
Geneticlab Diagnostic e Research (2) Via Corte Ferrighi, 16 Noventa Vic.na, Italy

Objective: Evaluate the effectiveness of sperm washes by double capacitation in patients with human hepatitis C virus (HCV) with a quantitative real time PCR method to determine viral presence after the procedure. PATIENT: 58 HCV-positive men attending our centre for assisted reproduction with their partners and 28 coinfected HIV/HCV.
Materials & methods: The semen samples from HCV males were obtained and washed through density gradients and swim-up. The

RNA HCV quantification in 0.5 ml of semen is made by a reverse transcription combined with real time fluorescent detection through the amplification of a conserved region of the HCV genome (RealTime PCR). The amount of HCV target sequence is measured through the use of fluorescent-labeled oligonucleotide probes on a Abbott m2000rt^{TM} . The limit of viral detection (LOD) of this assay is 12 IU/ml. The target specificity of the assay is greater than or equal to 99.5% after resolution.

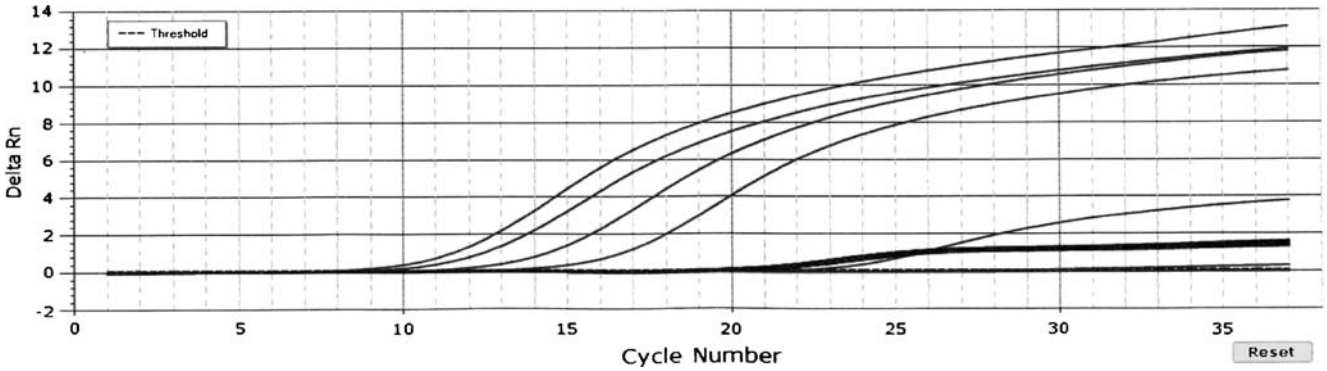


Image 1: Real time picture of many positive and negative samples

Result: Of all the semen samples that were analyzed after washing, one resulted positive; the viral load, although under the LOD, was anyway present. A non-washing semen sample, belonging the same patient, was analysed and the assay detected a viral load of 54 IU/ml. The currently used commercial methods of Real Time PCR confirmed the negativity of the other samples.

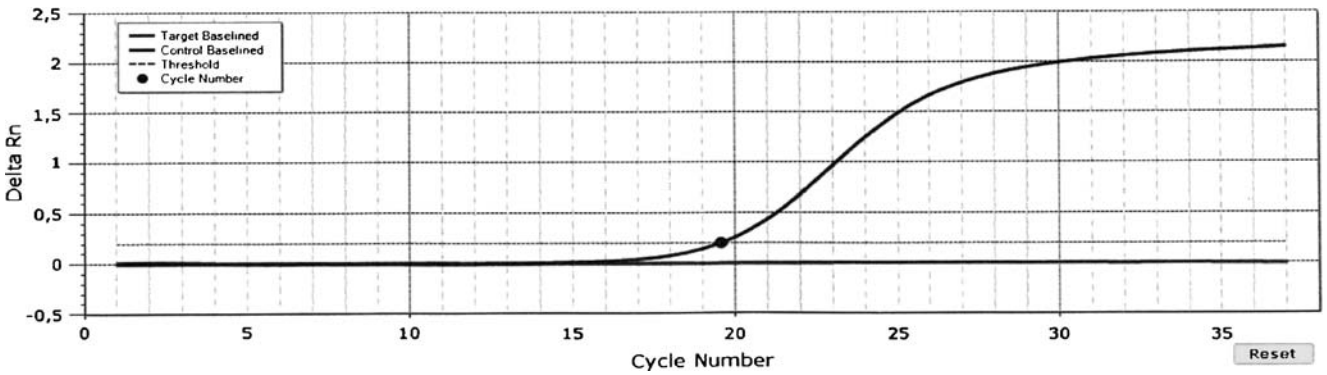


Image 2 Real time picture of a negative sample. Internal Control line (IC) assure the correct procedure during extraction end analyse of the sample. Target line of HCV is negative.

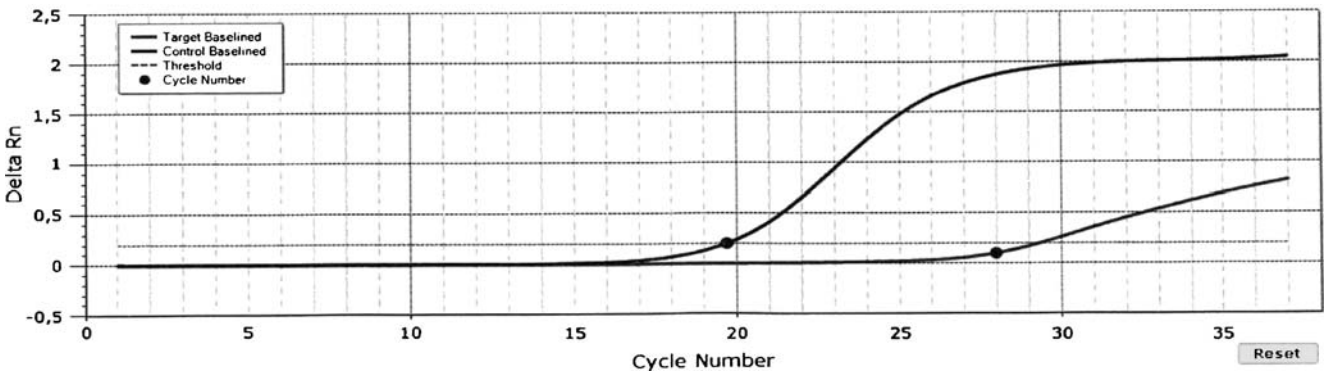


Image 3: Real time picture of the positive samples. IC is correct. Target line of HCV is low positive

Conclusion: Sperm wash combined with quantitative real time PCR is the appropriate method to use in the assisted reproduction techniques that are offered to serodiscordant couples. The detection limits exhibited by RealTime PCR doesn't offer a sufficient guarantee that transmission of all viral particles will be avoided since both viruses can be present in amounts lower than the detection threshold of this technique. Anyway it appear necessary to use method at sensibility much higher than possible.

P1_60

Laparoscopic tubal sterilization: long-term failure states

M. Branquinho, C. Carnide, I. Marques, J. Almeida, A. Leitão Marques, I. Santos Silva, F. Geraldes
Maternidade Bissaya Barreto, Centro Hospitalar de Coimbra, EPE, Portugal

Objective: To evaluate the failure of laparoscopic tubal sterilization (TS) and the rate of tubal ligation syndrome.
Methods: A retrospective transversal analysis of medical files of 392 women who underwent laparoscopic tubal sterization in our Institution between 2000 and 2006. This clinical study included patients who had a minimum of 30 months of postoperative follow-up. The variables studied were: age, weight, parity, indication, comorbidities, previous surgeries, contraceptive methods before surgery, type of laparoscopic sterilization, complications, days of hospitalization and the rates of post tubal ligation syndrome and pregnancy.
Results: Ninety women had more than 2 children. TS was performed for medical indication in 48 cases (12,1%) being hypertension the most common (23,4%). Bipolar coagulation was used in 43 cases (10,9%) and silastic bands in 314 cases (80,1%). The laparoconvertion rate was 1%. Pos-tubal ligation syndrome occoured in 15 cases (out of 206 women we could contact by telephone) and 3 failures of laparoscopic tubal sterilization were identified (0,7%). Most women present regular cycles after surgery.
Conclusions: The long-term sterilization failure rate for laparoscopic tubal sterilization is comparable to the results of others studies. These findings can be used to properly counsel women about the risks of sterilization failure and post tubal ligation menstrual disorders with this procedure.

P1_61

Laparoscopic treatment of polycystic ovaries: our experience

Hélder Ferreira, Rosa Zulmira, Rita Sousa, Rosália Cubal, Joana Guimarães
Hospital Santo António—Porto, Portugal

Objective: To evaluate the reproductive outcome after a standardized laparoscopic treatment of polycystic ovary syndrome (PCOS) in clomiphene-resistant infertile women.
Design: Retrospective study.
Setting: University teaching hospital.
Patient(s): Fifty two clomiphene-resistant anovulatory women with PCOS who had inappropriate response to gonadotropin administration (no response or hyperstimulation syndrome).
Intervention(s): Laparoscopic ovarian drilling using an insulated needle cautery. The procedure was performed using the needle electrode through a midline suprapubic port, trying to direct most of the punctures from the end of the ovary nearest the uterus and from the side of the ovary that normally lies next to the pelvic sidewall. We performed six to eight punctures of each ovary.
Main outcome measure(s): Ovulatory rate, pregnancy rate, and miscarriage rate.
Result(s): After surgery, ovulation occurred spontaneously in 85% of patients. The cumulative successful pregnancy rate at 12, 18, and 24 months was 66, 72, and 80 percent, respectively. The miscarriage rate was about 4 percent.
Conclusion(s): Laparoscopic ovarian drilling is an effective alternative treatment in clomiphene-resistant anovulatory women with PCOS.

P1_62

Laparoscopic sacral colpo-hysteropexy: one year follow-up

G. Guidetti, C. Saccardi, A. Cocco, L. Conte, A. Serena, P. Litta
Department of Gyanecological Sciences and Human Reproduction, Padua University, Italy

Object: To evaluate the efficacy of laparoscopic sacral colpo-hysteropexy in conservative correction of genital prolapse.
Materials and methods: 18 women with grade II and III genital prolapse, evaluated in the Department of Gynecological Science and Human Reproduction (Padua University), desirous of conservative surgery, undergone laparoscopic sacral colpohysteropexy with placement of mesh. Vaginal exam, urodinamic study as well as surgical variables were recorded. Patients were reassessed at 1, 6 and 12 months by vaginal exam and written questionnaire.
Results: Median blood loss was 10 cc (range 10–200 cc), median operative time was 156 min (range 113–300 min), in 4 (22.2%) patients trans obturatory tape was placed for stress urinary incontinence. In only one case post operative urinary dysfunction was detected, resolved spontaneously after 11 days of hospitalisation. One month after surgery, 5 (27.8%) women complained of intestinal disorders and in 1 of these also dyschezia. Six and twelve months after surgery we found good satisfaction of procedure, without bladder, bowel or sexual disorders.
Conclusions: Laparoscopic sacral colpo-hysteropexy resulted a good option for the correction of genital prolapse in women desiring conservative surgery, restoring pelvic anatomy and functionality, with good patients' satisfaction.

P1_63

Predicting individuals with an aptitude in laparoscopy: Is it possible?

E. Dimitriou, A. Nightingale, S. Khazali, A. Hatzigeorgiades, W. Prendiville
Institution: University of Surrey, Guildford, U.K., The Royal College of Surgeons in Ireland, Dublin, Ireland

Aim: To identify the effect if any of non-clinical characteristics on the performance and improvement on a moderately difficult laparoscopic exercise.
Background: Laparoscopic surgery is probably the most exciting and challenging form of surgery, which attracts numerous trainees. Unfortunately not everybody has the same ability to uptake and improve laparoscopic skills. With this study we are trying to see if it is possible to create a model to predict individuals with an aptitude in laparoscopic surgery.

Methods: 57 medical students were recruited in this study. They completed a pre-evaluation questionnaire on non-clinical characteristics such as gender, handedness, video-gaming, musical instrument playing, racket sports, driving, touch-typing and other skills that potentially improve hand-eye co-ordination. They were also scored on a spatial ability test and on 4 "magic eye" images. One-way ANOVA tests were calculated to test for their effects on initial performance and the performance difference between the initial and the final performance after an hour of training on a challenging for novices laparoscopic exercise.
Results: For the initial performance, video gamers and individuals that scored higher in the spatial ability tests did significantly better than the others. Suprisingly, individuals with familiarity with new tecnologies and higher scores in spaitial ability test improved less after training than their counterparts. "Magic eye" images didn't show to have any effect on either initial performance or improvement. Other parameters showed trends but didn't reach statistical significance.
Conclusion: It may be possible to create a model to be used as a predictor for doctors with an aptitude in laparoscopy. Larger studies are needed.

P1_64

Study on safety and efficiency of laparoscopic treatment for benign ovarian tumor

Takashi Kusakari, Michio Ueta, Hiromi Suzuki, Nobuya Tatsumi
Palmore Hospital, Japan

Objective: Laparoscopic surgery is becoming the standard procedure for benign ovarian tumors. Our purpose of this study is to evaluate safety and efficiency of laparoscopic treatment for patient with benign ovarian tumors.
Design & methods: Retrospective study was performed 67 patients who underwent operative laparoscopy or laparotomy for benign ovarian tumors between December 2001 and March 2008 at our institution. Data from preoperative evaluation, surgical intervention and follow-up were analyzed. Statistical analysis of clinical outcomes between the laparoscopy group and the laparotomy group was performed using unpaired t-test. Results: Thirty-one patients were managed by laparoscopy and thirty-six patients underwent laparotomy. In the laparoscopy group, 23 patients were performed unilateral or bilateral ovarian cystectomy and 8 patients were performed unilateral or bilateral adnexectomy. In the laparotomy group, 29 patients were performed unilateral or bilateral ovarian cystectomy and 7 patients were performed unilateral or bilateral adnexectomy. The mean age of patients was significantly high in the laparoscopy group compared with the laparotomy group (40±11.6 versus 33± 10.2 years, p

P1_65

Long term results of laparoscopically created neovaginas applying Vecchietti´s principles

M. Fernandez Chereguini, M.T. Muñoz Fernandez, A. Gonzalez Bermejo, G. Folgueira Valle, M.A. Huertas Fernandez
Hospital Universitario de Getafe, Madrid, Spain

Introduction: Retrospective descriptive study to demonstrate that laparoscopic created neovaginas applying Vecchietti´s principles are comparable in sexual function, length and even in pap smears to women without Muller anomalies.
Design: Setting is a university tertiary hospital.
Method: 18 patients were controlled after creation of a neovagina (follow-up ranges from one year to11 years). We measured vagina length at hospital delivery and at controls; a vaginoscopy and a pap smear were taken, and all women answered the FSFI (female Sexual Function Index).
Results: Results are considered successful in all items in 17 women: Pap smears were strictly normal, except for absence of endocervical cells. Even more, a Hsil displasia with high risk HPV was diagnosed. The FSFI exam showed normal results at all items: sexual desire, excitation, lubrication, orgasm, pain and satisfaction.
Vaginas measured around 11 cm at hospital delivery, with 1 cm length reduction at long term follow-up. The only short vagina (7 cm) was detected in a woman that did not follow postoperative recommendations.
Conclusions: Long term follow up shows that laparoscopic neovaginas using Vecchietti´s principles is a safe, minimally invasive treatment, with excellent long-term results.

Endometriosis: Diagnosis and Surgery

P2_01

Endometrioma excision and ovarian tissue loss: might we do it better?

Horace Roman, Ioana Opris, Oana Tarta, Lucian Puscasiu, Jean Christophe Sabourin, Loïc Marpeau
University Hospital, Gynecology and Obstetrics, Rouen, France

Objective: To estimate the loss of ovarian tissue inadvertently excised along with the endometrioma cyst.
Materials and methods: Design: Retrospective study. Setting: University hospital gynaecological surgery department. Patients: Women undergoing excision of ovarian endometriomas, using an ovarian-sparing tissue technique, carried out by an experienced laparoscopist surgeon. Interventions: For each endometrioma and on the section of the cyst at its largest diameter, 4 different sites were randomly chosen to measure both the thickness of the glandular epithelium, stroma and subjacent fibrosis depending on the cyst, and that of the ovarian parenchyma removed along with the cyst. Measurements & Main Results: Estimation of the volume of ovarian tissue excised. Thirty four cystectomies were performed, 68% on the left ovary and 32% on the right ovary. Adjacent ovarian tissue was found on the cyst wall in 31 cases (91%). Cyst diameter was 42± 15 mm. The thickness of ovarian tissue removed and that of the endometrial epithelium, stroma and fibrosis were respectively 724± 547 μm and 816±544 μm.
Results: The volume of ovarian tissue inadvertently removed was 4.6±4.8 mL (95%CI 0–18.5). Since a normal ovarian volume averages 7.8 mL the mean rate of ovarian tissue loss observed during cystectomy was 59% (95%CI 0–249). Excision of an endometrioma of diameter superior to 56 mm, might lead to the removal of a volume of ovarian tissue superior to that of the mean volume of a normal ovary.

Conclusions: Despite an accurate surgical technique, endometrioma cystectomy is usually responsible for ovarian tissue removal, the volume of which might approach that of the mean volume of a normal ovary. Our results suggest that several surgical procedures, such as recurrent endometrioma cystectomy or excision of large endometriomas, might have major harmful consequences on a woman"s fertility.

P2_02

94 months follow up after laparoscopic assistance vaginal resection of septum rectovaginale and rectosigmoid in women with deep infiltrating endometriosis

Andreas Kavallaris, Daniel A. Beyer, Amadeus Hornemann, Conny Banz, Katharina Kelling, Feriel Amari, Klaus Diedrich
Department of Obstetrics and Gynaecology, University of Schleswig-Holstein, Campus Luebeck, Luebeck, Germany

Background: Endometriosis with bowel involvement is a most invasive forms and can cause infertility, chronic pelvic pain and bowel symptoms. Effective surgical treatment of endometriosis requires complete excision of endometriosis and in same case may require segmental rectosigmoid resection.
Methods: Between 12/1997 and 10/2003 55 patients with rectovaginal endometriosis underwent a combined laparoscopic vaginal technique. 30 patients were found at a follow up and underwent a telephone interview. The questionnaire covered questions about symptoms related to a recurences of intestinal endometriosis, dyspareunia, dysmenorrhea and pregnancy.
Results: 27 of 30 (90%) women have no clinical symptoms of recurrence of endometriosis. Two patients (6.6%) reported recurrence of bowelendometriosis. Dysmenorrhoea disappeared in 28 (93.3%), dyspareunia in 26 (86.7%) and pelvic pain in 27 (90%) patients. 17 patients (31%) tried to become pregnant and 11 of these patients (65%) became pregnant: 9 patients delivered healthy newborns, 18 pregnancies were reported and 19 healthy children were born.
Conclusions: Despite the small number of follow up patients, our 94 months follow up data demonstrated that endometriosis with bowel involvement and radical resection was associated with significant reductions in painful and dysfunctional symptoms a low recurrence rate (6.6%) and high pregnancy rate (36.6%).

P2_03

Hystopathological features of endometriotic rectal nodules and implications on management by rectal nodule excision

Horace Roman, Ioana Opris, Oana Tarta, Benoit Resch, Jean Christophe Sabourin, Jean Jacuqes Tuech, Loic Marpeau
Gynecology and Obstetrics, Rouen, France

Objective: Our investigation focused on whether inside the endometriotic rectal nodules, glandular lesions remain surrounded by fibro-conjunctive tissue and smooth fibres.
Design: Retrospective study. Setting: University hospital.
Patients: Women who had presented with rectal endometriosis and benefited from rectal segmental resection in our department from February 2005 to July 2008. Interventions: In each case, the distance between the deepest point of active glandular and stromal infiltration and the deepest fibrotic lesion was then measured in μm.
Measurements & main results: Twenty seven women were included in the study. In only 14 cases out of 27, both active endometriotic tissue (glandular epithelium surrounded by scanty stroma) and fibrosis (fibro-conjunctive tissue and smooth fibres) had infiltrated the same rectal layer: muscularis propria (12 cases) and submucosa (2 cases). The depth of rectal infiltration by glandular epithelium and stroma was superior to that of the fibrosis in 24 cases out of 27 (89%), while fibrosis was responsible for the deepest infiltration in only 3 women (11%). In 24 women with deep infiltration of the active glandular epithelium and stroma, the distance from the deepest gland to the deepest point of the fibrosis ranged from 388 μm to 9,777 μm, with a mean value 5,313 μm and a SD 2,436 μm. In three cases where fibrosis infiltration was deeper than that of glandular and stromal invasion, the distance between the deepest point of the fibrosis and that of the endometriotic glands and stroma was respectively 626 μm, 705 μm and 2,323 μm.
Conclusion: For the majority of rectal endometriosis nodules, the fibrosis does not surround but follows behind glandular epithelium and stroma foci. The distance between the deepest glandular and the deepest fibrosis foci can be as large as 5 mm, and therefore surgical excision of all macroscopic fibrosis may result in leaving active endometriotic lesions outside the deepest limit of the excision.

P2_04

Midterm functional outcomes associated with surgical management of rectal endometriosis: giving our patients an informed choice

Horace Roman, Cecile Loisel, Benoit Resch, Jean Jacques Tuech, Hend Belhiba, Patrick Hochain, Anne Marie Leroi, Loïc Marpeau
Clinique Gynécologique et Obstétricale, CHU «Charles Nicolle», Rouen, France

Objective: To evaluate functional digestive outcomes following surgical management for rectal endometriosis.
Methods: Women undergoing surgical management of rectal endometriosis with at least 9 months of postoperative follow-up were included in a retrospective study**.** Postoperative symptoms were evaluated using specific questionnaires focusing on pelvic pain and digestive functional outcomes.
Results: Forty one women underwent surgical treatment of symptomatic rectal endometriosis, 40 of whom answered a questionnaire. The mean age was 33.6±6.7 years. The follow-up was 23±13 months (range 9–50). Colorectal segmental resection was performed in 25 women (61%) and nodule excision in 16 (39%; full thickness in 2 cases). An increase in the number of daily stools>=3 was observed in 11 (46%) vs. 2 (13%) patients managed respectively by segmental resection and excision (P=0.04). Severe constipation (<1 stool/5 days) was recorded in 3 women having undergone segmental resection. The likelihood of dysmenorrhoea, dyspareunia and non cyclic pelvic pain at 24 months was respectively 31% (95% CI 17–52%), 28% (95% CI 17–45%) and 47% (95% CI 33–64%). However, the recurrent pain score was significantly inferior to that of preoperative pain. There was no significant difference in pain score between women managed by the two procedures. Surgical treatment would be recommended to a

friend by 100% vs. 88% of women managed respectively by excision and segmental resection (P=0.33).
Conclusion: Colorectal resection in rectal endometriosis is associated with several unfavourable postoperative outcomes, such as bladder and rectal dysfunction, which are less likely to occur when rectal nodules are managed by excision. This presentation is neither a plea for rectal nodule excision nor an attack on colorectal segmental resection, because a definitive recommendation must take into account the long term risk of recurrence associated with each surgical procedure, which is accurately still unknown. Information about the complications relating to each surgical procedure is highly useful when deciding on the most appropriate course of treatment in each individual case of rectal endometriosis.

P2_05

A new narrow band imaging endoscopic system for the detection of surface pathology including endometriosis: a series of 95 patients
Stefanos Chandakas
Iaso Hospital, Athens, Greece

Study objective: The purpose of introducing optical electronics into video endoscopes is to improve the accuracy of diagnosis through image processing and digital technology. Narrow-band imaging (NBI), one of the most recent techniques, involves the use of interference filters to illuminate the target in narrowed red, green and blue (R/G/B) bands of the spectrum. This results in different images at distinct levels of the mucosa and increases the contrast between the epithelial surface and the subjacent vascular network. NBI can be combined with magnifying endoscopy with an optical zoom. The aim of this new technique is to characterize the surface of the distinct types of gastrointestinal epithelia.
Design: A retrospective study, in a University Hospital and a major gynaecological Hospital in Athens, Greece. The patients were95 women, mean age 33,9 with possible diagnosis of endometriosis, 58% underwent surgery for fertility reasons.
Results: NBI was used with magnifying endoscopy to image and biopsy randomly selected areas in all 95 patients. A systematic image and a biopsy specimen evaluation process was followed, including unblinded assessment of an exploratory set of images and biopsy specimens, and blinded evaluation of learning and validation sets. 82,7% of the lesions were labelled as endometriosis, whereas only 55.9% of the patients were initially diagnosed with endometriotic lesions.
Conclusions: NBI and other similar technologies provides an electronic, easier alternative to chromoendoscopy to aid the endoscopist in differentiation among benign, premalignant, and malignant mucosal patterns, as well as early stage endometriosis.

P2_06

Natural Orifice Transluminal Surgery (NOTES). Novel use of transvaginal route for segmental resection of rectum in a case of extensive endometriosis
Juhi Siddiqui[1], Abhiram Sharma[2], Kevin Phillips[1], Graeme Duthie[2]
Castlehill Hospital, Obstetrics and Gynaecology[1] / Academic Surgery[2], Castle Road, Cottingham, East Yorkshire, UK

Objective: To detail the first described, segmental resection of rectum for endometriosis, using the trans-vaginal route (NOTS).
Design: Case Report
Setting: Operating theatre in a teaching hospital in the United Kingdom.
Patient: A 31 year old woman presented with left sided pelvic pain and dyspareunia. She was known to have had Grade IV endometriosis. Vaginal and endo-luminal anal ultrasound revealed endometriosis involving the rectal muscularis and mucosa, extending 10 to 15 cm from the anal margin and protruding into the vagina. She had completed her family and was selected for a laparoscopic hysterectomy and resection of the area of bowel and vagina containing the endometriosis.
Interventions: A 10 mm trochar was inserted subumbilically and 3 further 5 mm ports were inserted under direct vision. Diagnostic laparoscopy revealed a large 5 by 3 cm endometrial nodule involving the rectovaginal septum and involving full thickness of the rectal wall. The ovaries appeared normal. Rectal, sigmoid mobilization and endometriotic nodule was performed laparoscopically. A Laparoscopic Hysterectomy was then performed, without closing the vault, to allow access to the nodule. Full thickness involvement of rectum was confirmed per-vaginum and segmental resection of rectum was completed through this route with specimen retrieved through the vagina. The two ends of a circular stapler (covidien circular stapler CEEA)™) were positioned in the rectum and colon via the vagina. The vault was closed and pneumoperitoneum re-established. Laparoscopically, the anastomosis completed and a covering loop ileostomy was created.
Measurements & main results: The patient made a good recovery and had resolution of her dyspareunia and pelvic pain. The ileostomy was reversed after a check gastrograffin enema.
Conclusion: NOTS is a novel and effective way of treating endometriosis involving the muscularis and mucosa of the rectum. This approach should minimise problems associated with the abdominal incisions in classical surgery.

P2_07

Does the presence of endometrioma predict more difficult surgery for posterior deeply infiltrating endometriotic lesions
M. Setälä, P. Härkki, P. Suvitie, J. Fraser, J. Jalkanen, J. Kössi, A. Perheentupa, K. Huhtinen, J. Matomäki, J. Mäkinen
Turku University Hospital, Finland

Introduction: Surgical excision of posterior DIE lesions (deeply infiltrating endometriosis in the uterosacral ligaments and/or rectovaginal space) is technically demanding surgery. Obstruction of the pouch of Douglas, and infiltration of endometriosis to the ureters is often detected in connection of these lesions, which complicates surgery even further. The aim of this study was to evaluate if the presence of endometrioma (≥ 3 cm) was associated with the obstruction of the pouch of Douglas, or with the infiltration of DIE to the ureter, in patients with posterior DIE lesions.
Patients and methods: 98 premenopausal patients with no previous pelvic surgery undergoing surgery for posterior DIE were prospectively enrolled into the study. DIE was defined as a lesion macroscopically infiltrating at least 5 mm under the peritoneum. Only

patients with complete excision, and histologic confirmation of endometriosis were included.
Results: Endometrioma (≥3 cm) was detected in 34 patients (35%). Obstruction of pouch of Douglas was detected in 22 patients (65%) with an endometrioma, and in 43 patients (67%) without an endometrioma (p=0.80). Attachment of posterior DIE lesion with ureter was detected in 18 patients (53%) with an endometrioma, and in 29 patients (45%) without an endometrioma (p=0.53).
Conclusions: It seems that in patients with posterior DIE, and no previous pelvic surgery, endometrioma can not be used as a marker for the difficulty of surgery for posterior deeply infiltrating endometriotic lesions.

P2_08

Laparoscopic excision of rectovaginal endometriotic nodule: The J English Approach
David Morgan, Jim English
Worthing Hospital, UK

This video demonstrates a totally laparoscopic approach to a case of nodular endometriosis involving the rectum and vagina.
In cases where a nodule of endometriosis is continuous between the rectum and vagina entry into the rectovaginal septum may be very difficult. This paper describes a technique which may be used to circumvent the difficulty. Using a harmonic scalpel the pelvic sidewalls are opened bilaterally and ureterolysis performed. The dissection continues to the level of the ureteric tunnels laterally, the mesorectum (which is conserved) posteriorly and pelvic floor inferiorly. Anteriorly, the nodule of endometriosis is left in situ on the rectum where it has infiltrated the entire thickness of the vaginal epithelium. The posterior vaginal fornix is opened as high as possible with harmonic scalpel leaving an oval shaped defect through which the surgeon may visualise the limit of disease in the posterior vaginal wall. The latter may then be opened inferiorly to the disease and readily dissected from the underlying normal rectum, the rectovaginal septum then being readily dissected inferiorly. This allows for the distal rectum to be transected with an endoscopic stapler and reanastomosis to be performed in the usual manner.

P2_09

Enzian Scoring System (ESS) for the Assessment of Pelvic Pain in Women With Deep Comparison Between the American Fertility Society (AFS) Scoring System Versus the Infiltrating Endometriosis
N. Bardis, G. A. Pistofidis, V. Chatzirafail, P. Balinakos, M. Filippidis
Athens, Greece

Objective: To demonstrate which of the two systems assesses more closely the relation between pelvic pain and severity of the disease.
Materials and methods: Retrospective study involving 67 women aged 23 to 44 years (median 32.5) who underwent laparoscopic surgery for deep infiltrating endometriosis. All cases were operated in one center and by the same surgical team. During surgery both systems were indpendently used to score their condition. In order to be able to assess each system's efficacy in measuring pelvic pain, we developed a new comprehensive numeric score based on the Enzian scoring system. Statistical analysis of the data was performed using the SigmaStat 2.03 statistical software.
Results: AFS score was from 2–118 (median 26, IQR 6.5–45.25) whilst the ESS was 1–12 (median 3, IQR: 2–6). AFS failed to demonstrate a relation between severity of disease and pelvic pain in either numeric score or grade classification (P=0.064 and P=0.448 respectively). The Enzian score was more accurately related to pelvic pain (P≤0.001).
Conclusions: In our study ESS represents a more accurate assessment tool between the stage of disease and pelvic pain.

P2_10

Vaginal excision of posterior vaginal fornix in the treatment of vaginal endometriotic nodules: surgical treatment and long term follow up
R. Amadori, N. Surico, E. Paulli, A. Vigone, L. Leo, D. Surico
University of Eastern Piedmont, Novara, Italy

Objective: The purpose of endometriosis surgical treatment actually is complete eradication of the disease, in order to solve the symptoms associated, but with a rate of postoperative complications inevitably increased. Avoiding overtreatment, tailoring the treatment for each woman, in selected patients with vaginal endometriotic nodules alone and no evidence at preoperative assessment of concomitant endometriosis in other sites, we suggest sole resection of endometriotic nodules by vaginal approach.
Materials and methods: We conducted a prospective study (Canadian Task Force Classification II-1) from 2000 to 2006 (follow up range 3–9 years) including 30 patients with stage II–III (Adamyan classification) vaginal endometriosis. All patients underwent to exeresis of endometriotic lesions by vaginal approach in spinal anesthesia. There were no immediate postoperative complications and all patients were fully recuperated by postoperative day 3.
Results: Postoperative questionnaires (VAS score) showed a significant improvement about pain sensation. 5 patients had spontaneous pregnancies after 1 year follow up. We did not observe any recurrence during the follow up. The vaginal approach for Adamyan stage II–III vaginal lesions with nodules excision is feasible in selected cases.
Conclusions: It seems that vaginal excision can treat dyspareunia, increasing their fertility assessment. The procedure is associated with low complication rates, rapid recovery to normal life and long-term well-being in many patients during the follow-up.

P2_11

Single port access endometriosis excision
D. Surico, L. Galli, A. Vigone, L. Leo, N. Surico
Advanced Gynaecological Oncology Centre, Departement of Obstetrics and Gynaecology, University of Eastern Piedmont, Novara, Italy

Objective: Since the first laparoscopic appendectomy was performed by K. Semm in 1983, laparoscopic surgery has been developed almost to perfection. Attempts to minimize access-related injuries and complications resulted in the development of natural orifice transluminal endoscopic surgery (NOTES) and of single port access laparoscopy (SPA). SPA that decrease the number of ports utilized may be the next generation of minimally invasive surgery.
Materials and methods: The TriPort allows up to three instruments to be inserted simultaneously through a single incision, by using a virtually scarless transumbilical access. SPA has been reported for appendicectomy, cholecystectomy, nephrectomy, pyeloplasty, radical prostatectomy, sigmoidectomy and salpingectomy.

Results: This technique increases the benefits of traditional mininvasive surgery as the reduction of post-operative pain and blood loss, faster recovery time, fewer complications, and better cosmetic results without increasing costs.
Conclusions: SPA can be performed with standard laparoscopic instruments in order to keep costs competitive, even if recently developed flexible surgical instrument will make it easier and faster.

P2_12

Endometriosis of umbilical cicatrix: five years experience
Marco Cencini, Cristina Ferretti, Carlo Buffi, Viviana Palermo, Giuseppe Morgante, Vincenzo De Leo
Unità Operativa di Ginecologia e Ostetricia, Ospedale Val D'Elsa, Azienda USL 7, Regione Toscana, Dipartimento di Pediatria Ostetricia e Medicina della Riproduzione, Università degli Studi di Siena, Siena, Italy

Objective: Endometriosis is a common disease affecting 6 to 10% of women in reproductive age. It occurs commonly in the pelvic cavity, but 12% of the women with endometriosis have the lesions in extrapelvic sites (intestinal tract, urinary tract, peritoneum, omentum, lung, abdominal wall). Endometriosis involving the abdominal wall is termed cutaneous endometriosis and it's associated with surgical scars. About 30% of cutaneous endometriosis involves umbilicus. The pathogenesis of the disease is not clear, possible theories include retrograde menstrual flow, coelomic metaplasia, iatrogenic dissemination, lymphatic or hematogenous spread. Also, recently, endometriosis has been attributed to environmental factors, related to contamination of food by the dioxin, derived from the incineration of waste.
Materials and methods: We report five cases of primary umbilical endometriosis, founded during the period between January 2004 to December 2008 in women between 31 and 43 years.
The patients presented a dark brown nodule on the umbilicus, associated with cyclical pain and bleeding. The concomitance of pelvic endometriosis was not confirmed only for one patient by laparoscopy. The etiopathogenesis of endometriosis outside the pelvic cavity and in the absence of previosus surgery is not clear, the possible explanations include immunological changes, lymphatic and hematogenous transport. Usual complement to the physical examination was ultrasound evaluation of the abdominal wall and an ultrasound transvaginal examination in order to verify the existence of foci of endometriosis in the pelvis. We proceeding to surgical excision of lesions suggestive of umbilical endometriosis.
Results and conclusions: The anatomopathological evaluation confirm the diagnosis, established from the presence of two of the three aspects: endometrial glands, endometrial stroma (spindle cells) and of pigment hemossiderina.

P2_13

The outcome of laparoscopic treatment of endometriosis-associated infertility
Vesna Šalamun, Martina Ribič-Pucelj, Tomaž Tomaževič, Andrej Vogler, Eda Vrtačnik Bokal
Department of Obstetrics and Gynecology, University Medical Centre Ljubljana, Ljubljana, Slovenia

Objective: Many studies have shown significant reduction of fertility in endometriosis. Mechanisms of infertility are still not completely clear. The aim of our study is to obtain the effectiveness of laparoscopic treatment of infertility for different stages of endometriosis.
Materials and methods: The effectiveness of laparoscopic treatment of infertility in endometriosis was observed through a questionnaire that was sent to 281 patients (pts), who had laparoscopic treatment in Department of Obstetrics and Gynecology Ljubljana during the period from 1999 to 2006 due to endometriosis as the only cause of infertility. 53.4% (150/281) pts, who answered the questionnaire, were divided into group I (minimal and mild endometriosis) and group II (moderate and severe endometriosis). We established the rate of pregnancy (in total, spontaneous and ART) and compared the results between two groups. Relatively small percentage of answered questionnaires was most likely due to the fact that the questionnaires were sent to pts who were operated several years ago and did not respond or have changed their address. Because the study is still ongoing, we present partial results.
Results: For 132 pts wanting to get pregnant the overall pregnancy rate was 76.5% (101/132). The rate of pregnant pts depended on the stage of endometriosis. In group I 86.8% (79/91) pts became pregnant—58, 2% (46/79) spontaneously, 41,8% (33/79) with ART. In group II 53,6% (22/41) pts became pregnant- 68,2%(15/22) spontaneously, 31,8% (7/22) with ART. The difference between groups was statistically significant ($p<0.05$).
Discussions: Our results are comparable to the results found in the literature. Laparoscopic treatment of infertility is effective in all four stages of endometriosis. According to our results laparoscopic treatment has the primary role in the treatment of endometriosis-associated infertility.

P2_14

Laparoscopic Resection of Extensive Endometriosis in a Combined Gynaecological and Colorectal Operating Setting
I. Koutoukos, J. Khan, S. Khazali, A. Miles, K. Louden
Royal Hampshire County Hospital, UK

Objective: The purpose of this retrospective study is to demonstrate the efficacy of joint gynaecological and colorectal operating lists for the laparoscopic treatment of endometriosis when the suspicion of bowel involvement has been raised.
Materials and methods: We look at monthly occurring lists over a 4 year period between 2005 and 2009 and document the preoperative investigations, operating findings, mode of treatment, operating times, rates of complications and conversions to laparotomy, as well as postoperative complications, readmissions and clinical improvement.
Results and conclusions: We are especially interested in the methods of bowel endometriosis resection and their outcomes. Demographic data are also depicted in the study.

P2_15

Implementation of a web-based pain diary for endometriosis patients, "Herdiary": an exploratory study
Khazali S., Louden K.A., Koutoukos I., Moors A.Z., Moayyerzadeh A., Ballard K.
Royal Hampshire County Hospital and Southampton University Hospital, United Kingdom

Objective: Accurate measures of patients' experiences of pain are difficult to capture, with most instruments tending to rely on a 'snap-shot' view. Better measures of pain are needed to help women communicate their symptoms, and to increase the validity of research outcome measures.
Materials and methods: We share our experience in implementing a new online pain diary, entitled 'Herdiary', and we explore the potential benefits of this instrument in patients with chronic pelvic pain; both in clinical practice and in research. Within 'Herdiary', patients score their pain from 0–10 on a daily basis, along with other information about their menstruation, time off from work or social activities. They also have the option to add comments for each pain score they provide.
Results: The software then creates a chart, which can be viewed by the patient and the clinician, indicating the severity and cyclicity of the pain. It also produces some descriptive statistics, including average pain score before and after any intervention.
Conclusions: Given the variable nature of pain, daily pain measurement should provide a more representative reading of the pain pattern and severity. This not only provides a potentially better research tool but also, by actively involving patients in their care may be beneficial in achieving better pain control and improving patient satisfaction.

P2_16

Laparoscopic Management of Deep Infiltrating Endometriosis. Our Experience

Laura Marqueta, Leticia Muñoz, Jose Luis Muñoz, Gregorio Lopez, Estela Lorenzo, Alvaro Tejerizo, Jesús S Jiménez
Hospital 12 de Octubre, Madrid, Spain

Objective: To evaluate our results in the laparoscopic management of deep infiltrating endometriosis.
Materials and methods: Descriptive study including 39 patients diagnosed of deep infiltrating endometriosis between January 2007 and May 2009. Diagnosis was made by clinical exam, transvaginal sonography, MRI, rectosigmoidoscopy and cystoscopy. Disease severity was evaluated using Adamyan classification.
Results: Mean age was 32.7 years. 35% had a previous surgery for endometriosis. The most frequent symptom was dysmenorrhea (95%) and dyspareunia (67.5%). A patient suffered intestinal occlusion and another hydronephrosis. Laparoscopic approach was performed in 37 patients. Laparoconversion occurred in 3 cases (10%). Mean operating time was 237 minutes (range 90–420). Deep infiltrating endometriosis of posterior compartment was excised in 34 patients. In 3 patients a bladder nodule was excised, and in two cases a partial ureteral resection and re-implantation was done. We performed hysterectomy with adnexectomy in 5 patients. In 6 patients (15%) was performed segmental bowel resection followed by end-to-end anastomosis. No intraoperative complications were noted. A patient required re-intervention because of anastomosis leakage. Average hospital stay was 5.4 days (range 1–15). During the long term follow up, 87.5% referred significant reductions in preoperative symptoms.
Conclusions: Surgical treatment is the first option for deep infiltrating endometriosis to remove completely all the lesions and to make histological diagnosis. Laparoscopic approach is feasible in most of the cases, and has proved good results in long term follow up.

P2_17

Ureteral endometriosis: surgical results and follow-up at a tertiary referral centre

M. Gracia, M.A. Martínez-Zamora, A. Ciudin, P. Luque, A. Franco, F. Carmona, J. Balasch
Neonatology. Institut Clínic de Nefrologia i Urologia. Hospital Clínic of Barcelona. University of Barcelona, Barcelona, Spain

Objective: To report our experience in the management of deep infiltrating endometriosis (DIE) affecting the ureter and the reasons for the choice of laparoscopic (LPS) or laparotomic (LPT) surgery.
Methods: 85 patients with DIE, from May 2001 to July 2008.
Results: 14 patients had severe ureteral endometriosis (UE) histologically confirmed (7 left, 4 right 3 bilateral). 8 patients had been previously operated from DIE without UE. Symptoms were: chronic pelvic pain in 75% and obstructive uropathy pain in 25%. Diagnosis was established by magnetic resonance imaging, renovesical sonography and endovenous urography. All patients had DIE in other sites of the pelvis. A JJ stent was always placed in one or both ureters before surgery. At diagnosis there was a severe hydronephrosis in 2 patients. Treatment consisted of ureteroneocystostomy (n=3), ureteral resection and end-to-end anastomosis (n=2) and ureterolysis (n=9). In 9 patients a LPS was initially performed. In 4 cases a LPS was completed, and a LPT was performed in the others due to severe adhesions and/or intestinal resection in patients with previous surgeries. There were no major complications. Mean follow-up of 40 months: 3 recurrences without UE.
Conclusions: The LPS removal of UE is difficult, especially when severe intestinal endometriosis or previous surgeries are associated, and in those cases LPT is often required.

P2_18

Quality of life after laparoscopic excision of rectovaginal endometriosis in patients with severe dyspareunia and severe chronic pelvic pain

M.A. Martínez-Zamora, J.L. Coloma, F. Carmona, C. Castelo-Branco, J. Balasch
Institut Clínic of Gynecology, Obstetrics and Neonatology. Hospital Clínic of Barcelona. University of Barcelona, Barcelona, Spain

Objectives: To quantify the impairment in the quality of life (QoL) in patients with rectovaginal endometriosis (RVE) and severe deep dyspareunia (SDD) and chronic pelvic pain (CPP), and the effect of the laparoscopic excision of RVE on the QoL 4–6 months after surgery.
Methods: 20 premenopausal women with RVE suffering SDD and CPP, and 20 controls. Patients underwent laparoscopic excision of RVE. Patients before surgery and 4–6 months afterwards, and controls, answered the SF-36 questionnaire evaluating health transition, general health, physical functioning, role physical, role emotional, social functioning, bodily pain, vitality and mental health.
Results: There were no recurrences during the study period. The comparison of patients before surgery and controls showed a statistically significant impairment in all the scores of QoL in patients before surgery. The comparison of the SF-36 questionnaires between

patients before and after surgery, showed a significant statistical improvement in all the scores except the Role emotional, which was improved but showed no statistical differences. There were no statistical differences between controls and patients after surgery, showing a normalization of the QoL after surgery.
Conclusions: Patients with RVE have a statistical significant impairment in QoL which improves and normalises at 4–6 months after the surgery.

Hysteroscopy: from Office to Resectoscope

P3_01

Feasibility and patient acceptance of outpatient hysteroscopy: review of one stop PMB clinic
G.Z. Ahson[1], M. Iftikhar[2], L. Newton[3]
[1]Specialist Registrar, [2]Consultant, [3]Gynaeoncology nurse specialist Department of Obstetrics & Gynaecology, Dorset County Hospital, Dorchester, UK

Objective: To evaluate the feasibility and patient acceptance of outpatient hysteroscopy using Versa point for investigating Post-menopausal bleeding (PMB).
Background: PMB represents one of the most common reasons for referral to gynaecological services, largely due to suspicion of an underlying endometrial malignancy. Hysteroscopy combined with endometrial biopsy has almost replaced D&C for the investigation of this symptom. Most hysteroscopies are performed under general anaesthetic despite evidence suggesting it is well tolerated and acceptable outpatient procedure. We therefore evaluate the acceptability and feasibility of this as an outpatient procedure in our study.
Setting: Outpatient hysteroscopy clinic for women with postmenopausal bleeding at a District General Hospital. Methods: A retrospective case analysis of the patients seen at the PMB clinic was conducted. The study period was one year, from May 2007 to May 2008. Identification of eligible patients occurred through the PMB clinic diary. All the patients seen at PMB clinic during this period were included. Questionnaires were sent to all the patients who had successful outpatient hysteroscopy.
Results: Total 334 patients were seen at the clinic, 205 needed further evaluation with hysteroscopy. Of these 49(23.9%) had this performed under general anaesthetic, the remaining 156(76%) patients underwent outpatient hysteroscopy. Out of the total 156 patients who underwent outpatient hysteroscopy 37(23.7%) were abandoned either due to inability to go past the cervix or due to discomfort experienced by the patient.119 (76.2%) had successful hysteroscopy, out of which 74 (62.1%) were discharged the same day. According to the results of the questionnaire 70% of patients tolerated the procedure well, 86% reported no discomfort after 24 hrs and 70% preferred outpatient hysteroscopy over general anaesthetic. Overall the introductions of this clinic lead to a decrease in elective Gynae- admissions by 3 less cases per week.
Conclusion: Outpatient hysteroscopy is feasible for the assessment of uterine cavity in an outpatient setting, without any sedation or anaesthesia. It is well accepted and tolerated by the patients. One stop PMB clinic is cost effective, avoids unnecessary delay in diagnosis while waiting for theatre slot, cost of theatre and bed occupancy.

P3_02

Using rollerball endometrial ablation as the treatment for a patient with menorragic cycles and probable partial intrauterine septus
M.P.A. Mieli, C.B. Testa, M.F. Maeda, P.F.R. Margarido, E.C. Baracat
Hospital Universitário da Universidade de São Paulo, Brasil

Introduction: The diagnostic hysteroscopy allows the visualization of the uterine cavity and diagnoses abnormalities. When precursory or neoplasm lesions are excluded, endometrial ablation is the best treatment for cases of uterine bleeding resistant to clinical treatment. The ablation technique can be done by histeroscopy (diatermic loop, rollerball ablation, Nd:YAG laser) or not (thermal balloon, laser, photodynamic therapy, microwaves, radiofrequecy, criotherapy).
Clinical report: MLC, age 49, has been presenting for two years menorragic cycles resistant to clinical treatment with non-steroidal anti-inflammatory drugs or progestogens. The patient didn't present any general and gynecological abnormalities. The oncotic colpocytology accused inflammatory cells. The endovaginal ultrasound revealed an uterus measuring 108 cm3 in volume, a small nodule in the uterine fund measuring 1,8 cm. The patient was submitted to a diagnostic hysteroscopy process, which revealed probable partial intrauterine septus and glandular thickness in previous and posterior of the uterine cavity walls. The anatomopathological study revealed deciduoid stromal cells. The surgery team chose the endometrial rollerball ablation to treat the case. Within three months after surgery, the patient reported a decrease of the pain and the menstrual flow in 1/3, if compared to the flow before the procedure.
Comments: The histeroscopy is minimally invasive surgery that allows the diagnosis and treatment of intrauterine lesions, with low morbimortality rates and quick return to the daily activities. Choosing for rollerball ablation allows reaching a depth of up to 2 to 3 mm in the miometrium, which is enough to achieve a good prognostic in the decrease or total interruption of the menstrual flow. The team has reached, in this particular case, favorable results, reducing for 1/3 the patient's menstrual flow with this therapy choice.

P3_03

The miniresectoscope for outpatient hysteroscopy
M. Granata, P. Papalampros, P. Gambadauro, N. Papadopoulos, D. Polyzos, A. Magos
Royal Free Hospital, London, UK

Background: Outpatient hysteroscopy has become well-established for the investigation abnormal uterine bleeding. Although “See and Treat” clinics have been widely introduced, the types of procedures offered are limited, and many patients with intrauterine pathology continue to be admitted as in-patients for hysteroscopic surgery. We wanted to investigate the feasibility and acceptability of surgery for small intrauterine lesions without the need for general anesthesia by using a miniature resectoscope.
Methods: This was a prospective observational study on 30 women with abnormal uterine bleeding associated with endometrial polyps or small (<3 cm) type 0 or 1 submucous fibroids. Hysteroscopic polypectomy (n=26) or myomectomy (n=4) was carried out using a 16 Fr gauge mini-resectoscope.
Results: Ten procedures were carried out in the outpatient clinic and 20 in the operating theatre. Sixteen procedures were done without any

anaesthesia and 14 after intra-cervical local anesthetic injections. The polyps and fibroids ranged in size from 1 to 5 cm, and all procedures took less than 15 minutes from the time the vagina was instrumented to the end of surgery. All procedures were completed successfully and were well tolerated with little discomfort. There were no complications.
Conclusions: The mini-resectoscope appears to be an efficient and acceptable instrument for hysteroscopic surgery and can be used without general anesthesia for minor procedure such as polypectomy and the resection of small submucous fibroids.

P3_04

Comparative analisys between hysteroscopy and hysterosalpingography
W. Pinheiro, J.M. Soares Jr, A.K. Cavalcante Pereira, N. Bozzini
University of São Paulo, Brazil

The purpose of this study is to compare the results of hysterosalpingography (h.s.g) and those of hysteroscopy (h.c.p) in order to evaluate intrauterine morphology in a sample of 94 infertile patients. in the h. s. g sample having no intrauterine pathology. h. c. p showed : up a pathological conditions in 30% of the cases similarly. in the cases in the which h.s.g showed pathologies, h.c.p gave normal results in the 55,5%.
Conclusion: 1) considering h.c.p to be a simple diagnostic method, which causes little trauma, to the patients and is more precise than h.s.g. 2) recommend the hysteroscopic routine approach, especially in cases of sterility of unknown origin.

P3_05

Critical analisys between hysteroscopie And ultrasonography
W. Pinheiro, A.K. Cavalcante Pereira, J.M. Soares Jr, G.A. Maciel
University of São Paulo, Brazil

The authors studied 1400 patients, who had endometrial tickness, from january 1997 to december 2008. the endometrial tickness above 4 mm, in post- menopausal patients, is a indirect sign of endometrial proliferation, when appearing at a time no compatible with estrogenic activity and thus suspect of being a risk for câncer. a evalutation was made of 1400 patients presenting any sintomatologic signs, and presenting endometrial tickness above 4 mm.the endometrium measures was performed for transvaginal sonography,and evaluatation by hysteroscope rigid karl storz (2,9 mm) and endometrial biopsy . the hysteroscopy showed the following : normal endometrium, polyps, myomas, disfunctional endometrium, hyperplasic endometrium, and cases of adenocarcinoma. hysteroscopy revealed a great variety of endometrial and uterine cavity alterations for endometrium tickness. the authors conclude that this method is a fundamental examination for acuracity evaluation of the endometrial tickness, and the ultrasonography is the method for screening of population in post menopause, for the patients in the hormonal therapeutic.

P3_06

Endometrial hyperplasia—Hysteroscopic therapy
W. Pinheiro, A.K. Cavalcante Pereira, G.A. Maciel, N. Bozzini, J.M. Soares Jr, E.C. Baracat
University of São Paulo, Brazil

Objective: To evaluate the hysteroscopy-guided endometrial biopsy of patients with breast cancer under adjuvant treatment with tamoxifem.
Study methods: This study was prospective and included 168 patients aged 39 to 82 years old with breast cancer and submitted to tamoxifen treatment. The hysteroscopy was performed before and after five years of treatment. The statistical analysis was made through the chi-square and fisher texts.
Results: The 37,5% of patients presented abnormal uterine bleeding (n =63) and the others did not related any health problem (n=105). the hysteroscopy with biopsy before the tamoxifen treated showed: secretor endometrium (n=28), endometrial atrophy (n=138), leiomyoma submucous (n=4). after five years of treatment, the results of hysteroscopy with biopsy were: endometrial polyps (28.57%); simple hyperplasia (16.07%); proliferative endometrium (8.33%); adenocarcinoma (3.57%); leiomyoma (2.38%) and atrophy endometrium (41.08%).
Conclusion: Our data suggested tha tamoxifem may affect on the endometrium as proliferative agent.

P3_07

Endometrial changes in patients treated with serms
W. Pinheiro, A.K. Cavalcante Pereira, G.A. Maciel, N. Bozzini, J.M. Soares Jr, E.C. Baracat
University of São Paulo, Brazil

Objective: To evaluate the hysteroscopy-guided endometrial biopsy of patients with breast cancer under adjuvant treatment with tamoxifem.
Study methods: This study was prospective and included 168 patients aged 39 to 82 years old with breast cancer and submitted to tamoxifen treatment. The hysteroscopy was performed before and after five years of treatment. The statistical analysis was made through the chi-square and fisher texts.
Results: The 37,5% of patients presented abnormal uterine bleeding (n= 63) and the others did not related any health problem (n=105). the hysteroscopy with biopsy before the tamoxifen treated showed: secretor endometrium (n=28), endometrial atrophy (n=138), leiomyoma submucous (n=4). after five years of treatment, the results of hysteroscopy with biopsy were: endometrial polyps (28.57%); simple hyperplasia (16.07%); proliferative endometrium (8.33%); adenocarcinoma (3.57%); leiomyoma (2.38%) and atrophy endometrium (41.08%).
Conclusion: Our data suggested tha tamoxifem may affect on the endometrium as proliferative agent.

P3_08

A therapy for preventing the hyperplasia recurrence after Tamoxifen treatment—Endometrium ablation
W. Pinheiro, A.K. Cavalcante Pereira, N. Bozzini
University of São Paulo, Brazil

Objective: To evaluate the endometrial ablation on survival of breast cancer under tamoxifen treatment during premenopause.
Study methods: 30 breast cancer survival patients during the reproductive period and user of tamoxifen (20 mg/day) were included in this study. All patients had simple endometrial hyperplasia in the first year of hormonal treatment. The procedure was performed through hysteroscopic electric ablation of endometrial cavity. We followed the patients during the five years of tamoxifen treatment.

Results: Around 73% of patients presented amenorrhea after surgical treatment and 27% had hypomenorrhea. No recurrence was found after five years of tamoxifen treatment through hysteroscopy.
Conclusion: The ablation may be a good and safe approach for endometrial hyperplasia treatment in breast cancer survival patients that may need to use tamoxifen.

P3_09

Investigation of C-hepatitis in patients of ambulatorial hysteroscopy
W. Pinheiro, A.K. Cavalcante Pereira, J.M. Soares Jr, G.A. Maciel
University of São Paulo, Brazil

Introduction: From july 1992 till may 2009, ambulatorial diagnostic hysteroscopy was indicated, to 8967 patients, 80% of them because of abnormal uterine bleeding.
Study methods: As a routine procedure all patients went through a.i. d.s, b and c-hepatitis, sorologic tests, in our hysteroscopy ambulatory, because there is a potential risk of contamination. r e s u l t s among those patients, 1347(16%) presented positive test for c-hepatitis. during the investigation only 121 (1,34%) of them, referred previous contact.
Comments: Those data on our view are high. we learned that, c—hepatitis has been expanding in the world. this justifies extending these exams to all ambulatorial patients of this university. this is important to avoid, the risk of accidentalcontamination by endoscopic instruments.so, it is necessary to choose the adequate solutions,to obtain effective viral sterelization with formal-aldehyde or ethilene oxid.

P3_10

Feasability and acceptability of hysteroscopic sterilisation (Essure® System) without anesthesia
A. Agostini, M. Petrakian, J.P. Estrade, L. Cravello, M. Gamerre
La Conception Hospital—France

Objective: To evaluate feasibility and acceptability of hysteroscopic sterilisation without anaesthesia (HSWA).
Materials and methods: From 1/1/2005 to 1/1/2007, 68 patients underwent HSWA performed by one operator. All patients were contacted at least three month later by phone or mail.
Results: In 9 patients (13%) HSWA was not performed for pain or oestium problem (visibility or introduction). For these patients, hysteroscopic sterilisation was performed in 5 cases successfully under general anaesthesia. So hysteroscopic sterilisation was success full in 64/68 patients (94%). For 59/68 patients (87%) HSWA was performed without problem in one time. All patients were contacted by phone or mail .Seven patients (11%) regretted to underwent this procedure without general or local anaesthesia, but acceptability of this procedure without anaesthesia was high in 57/59 patients (96%) and 53/59 patients (90%) recommended this procedure without anaesthesia to a friend.
Discussion: Success rate of Hysteroscopic sterilisation is high. Hysteroscopic sterilisation was feasible without anaesthesia and well tolerated by patients.

P3_11

Hysteroscopy as treatment for reimplantation of trophoblastic tissue in uterine scar dehiscence: a case report
F. Capanna[1,2], I. Dellacasa[1], I. Kaelin[1], M. Abou[1], G.C. Di Renzo[2], J.B. Dubuisson[1], A.T. Vlastos[1]
[1]*Clinic of Gynecology, Department of Gynecology and Obstetrics, Geneva University Hospital, Geneva, Switzerland*
[2]*Departement of Obstetrics and Gynecology, University of Perugia, Perugia, Italy*
Clinic of Gynecology, Department of Gynecology and Obstetrics, Geneva University Hospital, Geneva, Switzerland

Introduction: Surgical evacuation is gold standard for miscarriage management, but recent studies demonstrated the use of misoprostol per os is a method as effective as surgery, to achieve uterine evacuation in the management of incomplete abortion. In the present report, we however describe a rare complication of this medical treatment in uterine cesarean section scar dehiscence, after treatment with misoprostol for incomplete abortion.
Case report: A 24-year-old woman, attended our out patient clinic for vaginal spotting with positive pregnancy test. Her medical history included previous a cesarean section followed by endometritis eleven weeks after the surgery. The patient choose to have an expectative management for her miscarriage. Surgical evacuation was refused by the woman, medical treatment with 400 µg of oral misoprostol (Cytotec®) given 3 times per day for 2 days was started. Finally after the second misoprostol regiment the vaginal ultrasound evidenced a 11×17 mm trophoblastic mass, with functional circulation on Doppler scan inside the cesarean section scar dehiscent. Dehiscence and trophoblatic tissue reimplantation was made. Two days later the US showed an increase in the size reimplanted trophoblast (30×25.6 mm) and we finally performed an operative hysteroscopy in order to remove under visual central the remaining gestational tissue. Histopathologic analysis of the resected tissues confirmed chorionic villi and trophoblast.
Discussion: Medical management of miscarriages is associated with less surgical complication and possibly less infection, but the optimal treatment regimen is yet to be determined. [1]Transvaginal sonography, Doppler flow imaging, and hysteroscope was our basic instrument in verifying the diagnosis, in follow-up and to remove gestational tissue. We advocate the use of hysteroscopy among the diagnostic modalities for cesarean scar pregnancy. After visualizing the uterine cavity with hysteroscopy, transcervical resectoscopy is appropriate for remove the trophoblatic tissue.

P3_12

Can the comfort in office hysteroscopy be improved?
S. Masoni, C. Tantini
ASL 6 Livorno, Dept. Obstetrics and Gynecology, Cecina Hospital, Italy

Office hysteroscopy is described as acceptable to most patients, with a completion success rate over 90%. Vaginoscopic approach and technologically evoluted instruments aid to make the procedure easier, safer and more confortable.
Drugs as non-steroid inflammatory drugs, intracervical block, paracervical block, transcervical block, topical analgesia are used for the same purpose.

The Authors deem that the most important factor of discomfort is vagal reflex and report their experience with sublingual Atropine (Hyoscyamine).
Such simple solution, associated to vaginoscopic approach and good information to the patients about procedures, results in an higher completion success rate.

P3_13

Endometrial ablation. Results of Institut Universitari Dexeus since 1991 to 2007

A. Castellà, O. Salas, A. Ubeda, M. Simón, R. Labastida
Institut Universitari Dexeus, Spain

Objective: Menorrhagia is cyclic bleeding more than 80 ml. There are several options for treatment: oral medications (NSAIDs, OCPs, tranexamic acid, progestins), local (LNG-IUS) or surgery: conservative (endometrial ablation) or radical (hysterectomy).The only absolute contraindication to ablation is the desire future pregnancy. Relative contraindications are more than 13 cm uterus, adenomyosis, and nonspecific pelvic pain. Multiple myoma and age can be considered disadvantages.
Material and methods: Descriptive study of retrospective review of patients undergoing endometrial ablation in the period 1991 to 2007.
Results: Total ablations performed: 611 (average age: 44.31 years, range: 30 to 50). Complications recorded: 21 (3.43%): 5 uterine perforation (0.8%), 5 circulatory overload (0.8%), 7 cases of bleeding (1.2%), 4 others (0.4%).Hysterectomy was performed in 30 cases (4.9%): Abdominal 5 (0.8%), Vaginal Hysterectomy with Laparoscopic Assistance 12 (1.9%), Vaginal 13 (2.1%). Three cases were reoperated with Hysteroscopy (0.5%). Causes of Hysterectomy: dysmenorrhea-hydrosalpinx 12/30 (40%), uterine prolapse 6 (20%), hypertrophic uterus myomatosic 4 (13.3%), altered pathology 3 (10%) hyperplasia with atypia and 2 stromal sarcoma endometrial 1, clinical persistence 3 (10%), and suspected adnexal mass 1 (3.33%). No need of hysterectomy at 12 months: 99%, and 5 years: 93%. Probability of oligoamenorrea a year after treatment: 80.9%, and 5 years 96.5%.
Conclusion: Endometrial ablation is a good alternative to control excessive uterine bleeding. Shorter hospital stay, recovery time, cost and complication rate. It can be a good alternative to hysterectomy, with good long-term results.

P3_14

The efficacy of hysteroscopy in diagnosis and treatment of endometrial pathology: -See and Treat-

Andreia Antunes
Hospital Santo André, Leiria, Portugal

Objective: To take the maximum advantage of each hysteroscopy we proposed to couple the diagnostic and treatment procedures, reaching the true vocation of the technique particularly when pathological lesions are detected during the diagnostic examination. Diagnostic accuracy and therapeutical effectiveness were evaluated.
Methods: Retrospective study that included all the patients admitted in the ambulatory surgery unit of our Hospital, Sto. André—Leiria (Portugal), from February 2005 to February 2008, whose diagnostic and surgical objective was concluded in a unique session. The diagnosis of the hysteroscopy findings were compared with the results of the pathological study.
Results: The average age was of 54 years (min: 24 and max: 87). The majority of the patients (96,2%) presented with a transvaginal ultrasonography lesion (endometrial thickness, irregularity, heterogeneity, hematometra, polyps, myomas, remaining placenta, abortive debris, IUD or strange body) and only 3,8% of patients had a normal ultrasonography having been the reasons for referral: one case of infertility, one case of endometrial cells in the cervix cytology, two cases of cervical polyps, 5 cases of postmenopausal uterine bleeding and six of others causes of abnormal uterine bleeding.
Considering the diagnostic accuracy of hysteroscopy in the evaluation of intra-cavity lesions, the sensitivity, specificity, positive and negative predictive values were respectively 98,8%, 99,3%, 97,7%, 98,9% and 98,5%. The values of the same parameters regarding the characterization of endometrium were as follows: 88,2%, 79,8%, 91,9%, 81,8% e 90,9%.
Conclusion: We concluded that the ambulatory performance of direct visualization of uterine cavity by hysteroscopy guarantees a high diagnostic accuracy, allowing the simultaneous accomplishment of biopsies and surgical treatment of the visualized lesions.

P3_15

Hysteroscopic management of ectopic pregnancy; cases of cornual and cesarean scar pregnancies

Kyung-Do Ki, Seon-Kyung Lee
Department of Obstetrics and Gynecology, East-West Neo Medical Center, Kyung-Hee University, Seoul, Korea

Objective: The aim of this study was to present our clinical experience with cases of unusual ectopic implantation in the uterine scar from previous cesarean section and uterine cornus to provide information for the management of uncommon ectopic pregnancies.
Design: Two cases report.
Results: This report describes two cases of a viable ectopic pregnancy successfully treated with hysteroscopic management. Case 1. A 38-year-old woman who had experienced two of cesarean section was admitted at our hospital due to vaginal hemorrhage 7 weeks after her last menstrual period. Clinical examination and ultrasound findings were consistent with ectopic cervical pregnancy. Transarterial embolization of bilateral uterine arteries was performed to prevent intraoperative hemorrhage and then the gestation was removed by operative hysteroscopy and suction curettage without complications.
Case 2. A 36-year-old woman presented with a history of amenorrhea for 6 weeks and a positive pregnancy test. A transvaginal ultrasound revealed a right cornual pregnancy. The patient was treated with systemic methotrexate therapy, but the gestational sac persisted. Through the operative hysteroscopy, the sac was ruptured, and the conceptional tissue was removed from the right cornus. Two weeks later, she was normal in pelvic examination and had negative pregnancy test and normal ultrasound findings.
Conclusion: Surgical treatment with hysteroscopic approach, if validated, could be considered a conservative option for the treatment of unusual ectopic pregnancy in some patients. This technique preserves the uterus and greatly reduces morbidity.

P3_16

Prospective trial of hysteroscopic sentinel mapping in stage I endometrial cancer

S. Becker, T. Fehm, R. Rothmund, K. Gardanis, R. Hornung, W. Zubke, D. Wallwiener, E. Solomayer
Tübingen University Women's Hospital, Germany

Introduction: Minimally invasive and minimally traumatizing surgical techniques are being adopted in many areas of gynaecologic oncology. The laparoscopic approach to pelvic and paraaortic lymphadenectomy can easily be combined with sentinel node detection, to allow for faster and less extensive surgery. Clinical feasibility and reliability, particularly in a routine clinical setting remain to be proven.
Methods: We prospectively looked at 142 patients who underwent standard laparoscopic surgery for histologically proven endometrial cancer. Surgery included total laparoscopic hysterectomy as well as pelvic lymphadenectomy and paraaortic lymphadenectomy when indicated. 71 patients underwent hysteroscopically guided peritumoral injection of technetium, followed by lymphszintigraphy prior to surgery. 72 patients served as controls. Sentinel nodes were detected and removed when possible. All patients received classic lymphadenectomy as clinically indicated.
Results: 142 patients underwent total laparoscopic hysterectomy and laparoscopic lymphadenectomy. Average duration of surgery was 219 minutes in the non-sentinel and 210 minutes in the sentinel group. On average, 16,7 and 16,3 lymphnodes were detected. The rate of metastasis was 3/72 in the control group and 1/71 in the sentinel group. The sentinel lymphnode was detected in 53/71 cases (75%).
Conclusions: As part of a research process that took several yeary, sentinel lymphnode techniques have become routine practise in the treatment of breast cancer and melanoma. In view of the high rate of negative lymphnodes in early stage endometrial cancer—as underlined by our study—efforts to improve existing techniques are needed. Sentinal lymphnode sampling will most likely be the only way to maintain adequate TNM-staging for endometrial cancer in the face of increasingly critical assessments of the benefits of complete lymphonodektomy.

P3_17

The clinical relevance of hysteroscopic polypectomy in premenopausal women with abnormal uterine bleeding

H. van Dongen, C.A.H. Janssen, M.J.G.H. Smeets, M.H. Emanuel, F.W. Jansen
Leiden University Medical Center, Leiden, The Netherlands

This study assessed the efficacy of hysteroscopic polyp removal in the management of abnormal uterine bleeding of premenopausal patients. The monthly menstrual blood loss, measured semi-objectively by the pictorial blood loss assessment chart and patients satisfaction were recorded prospectively pre-and post-operatively. Twenty-one patients were included. Median monthly pictorial chart score before treatment was 288 (range 142–670), and 6 months after polyp removal 155 (range 39–560). It was concluded that hysteroscopic polyp removal in premenopausal women with abnormal uterine bleeding reduces the monthly blood loss significantly and has a high satisfaction rate on the short term.

P3_18

P3_19

Hysteroscopic tubal sterilization in IUD users

E. Velasco Sánchez, J.E. Arjona Berral, J. Rios Castillo, I. Illic, E. Espejo Rodriguez, B. Pelegrín Sánchez
Hospital Universitario Reina Sofía, Spain

Objective: To evaluate the results of hysteroscopic placement of Essure® device in IUD users in comparison with IUD-non users.
Material and methods: Retrospective cohort study conducted in the Hysteroscopic Outpatient Unit of a Universitary Hospital.
3200 women were enrolled in this study between January 2003 through January 2009. 2842 women were non IUD-users for 358 women IUD-users. In the IUD-users group we obtained 207 patients with IUD removed one month before procedure.
Results: We didn´t found differences in tolerance or satisfaction in all groups. Statistically significant difference was found in the success rate: 0.6% failure rate in non IUD-users for 3.9% failure rate in IUD-users;4.3% failure rate in IUD-user when it was removed one month before procedure and 3.3% failure rate in IUD-users when IUD was not removed.
Conclusion: Although Essure product guidelines advise against use of IUD as 3-month waiting period contraception after microinsert placement, we have demonstrated not only that insertion is possible in more than 90% of cases, but it also allows use of the same contraceptive method in IUD users for the following three months until tubal occlusion is confirmed.

P3_20

Role of office hysteroscopy in evaluation of uterine pathologies

G. Morgante, V. Scolaro, M.C. Musacchio, V. De Leo, F. Petraglia
Dept Pediatrics, Obstetrics and Reproductive Medicine, University of Siena, Italy

Objective: Failure of embryo implantation may be due to various causes: unrecognized uterine pathology is one of the possible explanation. Acquired diseases of the uterus may negatively impact on the complex processes of embryo implantation. The effect of endometrial polyps on fertility is uncertain, but their removal, once identified, is justifiable. Routinary hysteroscopy has not been accepted as a common part of the infertility investigation, and it is generally performed only to confirm suspected uterine abnormalities and as appropriate therapy. The most consistent factor for predicting pregnancy and implantation rates is embryos quality. However, there are others significant factors like endometrial receptivity and uterine integrity. Endometrial abnormalities, such as endometritis, polyps and intrauterine adhesions may negatively affect endometrial receptivity and implantation. Our study evaluated the impact of hysteroscopy in women with a prior failed attempt of IVF/ICSI.
Material and methods: 40 women underwent to the Centre for Diagnosis and therapy of Infertility of University of Siena were selected. Transvaginal ultrasound examination before first ART cycle don't highlighted any uterine pathology. The women executed an office hysteroscopy two months before IVF/ICSI cycle.
Results: Among patients of the study group, there were no significant differences in age, type or length of infertility, or follow-up period

after the first procedure. Main outcome measures were hysteroscopic findings and pregnancy rate. In 31% of patients was found an uterine pathology at hysteroscopy like small polyps or endometritis.
Endometrial polyps were found during diagnostic hysteroscopy in 18% of the patients, diagnosis was confirmed at histological examination after hysteroscopic polypectomy.
The subsequent attempt of IVF/ICSI had a pregnancy rate of 31% with a small percent of abortion during first trimester of pregnancy.
Endometritis was found in 13% of patients. Hysteroscopically were found areas of red endometrium with a white central point and were localized or scattered out the cavity. Antibiotic therapy was administered when endometritis was visualized and confirmed by pathologic examination. In all cases the endometritis was clinically unsuspected. Pregnancy rate in patients with treated endometritis were of 34%, but there was an high percent of abortion (75%) that demonstrate the role of endometrial chronic inflammation in embryo implantation rate.
Conclusions: Acquired diseases of the uterus affect fertility and pregnancy outcome, and surgical treatment may benefit selected patients. Our results suggest that the incidence of pathologic findings on hysteroscopy is relatively high in patients who have IVF/ICSI failure. Surgical or medical therapy before the second attempt of IVF/ICSI significantly improved implantation rates and pregnancy in patients with an uterine pathology. Evaluation of uterine and endometrial integrity by hysteroscopy is valuable and should be performed in all patients who have repeated IVF-ET failure after transfer of good—quality embryos.

P3_21

Office hysteroscopy implementation in a General Hospital: Report of the first 92 Cases

M. Marín Palazón, E. Cazorla, R.M. Díaz, K. Anniuk, W. Juszkiewicz
Department of Obstetrics and Gynecology, Hospital de Torrevieja, Alicante (Spain)

Objective: Hysteroscopy is the technique with the most accuracy for the diagnosis of endometrial pathology. Outpatient hysteroscopy has several clinical advantages: not only is a good diagnostic tool but also a therapeutic one to remove polyps of small size or to perform other procedures. On the other hand, office hysteroscopy reduces costs of surgical interventions at the operating room.
Material and method: We analyzed all the office hysteroscopies performed at the Torrevieja Hospital in the first three months of implementation of this technique from 01-03-09 to 31-05-09. Age, menopause, symptoms, ultrasound findings, main indication for hysteroscopy, technique findings and histological results are analyzed.
Results: Torrevieja Hospital is a general hospital of 260 beds, 39 of them are attached to the Department of Obstetrics and Gynecology. Office hysteroscopy implementation began this year on March, after two years of the hospital opening. 92 procedures were indicated and 85 (92.4%) were carried out successfully. The main indication for the procedure was polyp or submucous fibroid (60.9%), followed by hysteroscopic sterilization (18.5%), abnormal vaginal bleeding (15.2%), removal of intrauterine device (3.3%) and infertility (2.2%). The most frequent finding was endometrial polyp (40%). There were no lesions in the 33% of cases.
Conclusion: Performance of outpatient hysteroscopy in an adequate selected group of patients is successful in a high percentage of cases, and it allows to make biopsies or polyps removal as well as hysteroscopic sterilization

P3_22

Hysteroscopic septotomy in infertility

Tânia Sardinha, Isabel Amaral, M.Lurdes Pinho, Ana Paula Lopes
Nossa Senhora do Rosário´s Hospital Portugal

Objective: Anatomical abnormalities of the uterus are found in 10–15%of woman with infertility and spontaneous abortion. Uterus septum is one of them. Traditional abdominal correction require incision of abdominal and uterine walls, with relative long hospitalization and recovery. After this procedure, cesarean section is mandatory to prevent rupture of the uterus. Hysteroscopic septotomy treat the malformation without injury of the abdominal walls. Vaginal delivery is possible and the uterine rupture is rare.
Materials and method: We report two cases of Caucasoid women with uterus septum: a 27 years-old woman with a late miscarriage and a 31 years-old woman with 2- year primary infertility. Hysteroscopic septotomy with laparoscopic control was performed. The overage operation time was 45 minutes. No uterine perforation, electric injury or excessive blood loss was recorded. One patient was discharged from hospital in the same day of operation, and the other the day after.
Results: They undergone routine follow-up. Pelvic ultrasound showed uterine cavity morphologicall normal. Actually, one year after operation, they start try to become pregnant.
Conclusions: Uterine septotomy by operative hysteroscopy provides an effective therapeutic option in women with uterus septum causing infertility, with less injury and few complications.

P3_23

Hysteroscopic tubal sterilization with the Essure® device

B. Varo, A. Marzal, J.J. Hidalgo, J.M. Rubio, D. Oltra, A. Monzó, A. Romeu
Hospital universitario La Fe. Servicio de Ginecología, Spain

Objective: Tubal sterilization with the Essure® is a permanent contraceptive procedure not requiring general anesthesia or skin incisions.
Materials and methods: This procedure consists of the placement of a device in the tubal ostia by hysteroscopy. In this work we present the case of women that, after a tubal sterilization using the Essure® method, became pregnant and the progression of her pregnancy. The patient is a 38-year-old multiparous woman who desired a tubal sterilization. After the devices were placed, the presence of the right device could not be confirmed neither by pelvic x-ray nor by hysterosalpingography (HSG).
Results: While waiting for new image tests, the patient became pregnant because alternative contraceptive methods were abandoned.
Conclusion: The course of pregnancy occurred without complications and ended with a vaginal delivery of a healthy full-term male.

P3_24

Analgesia in office hysteroscopy: A randomized double-blind placebo-controlled trial

Osório Marta*, Fornelos Gisela*, Monteiro Carla*, Susana Pinho*, Leitão Susana*, Lanhoso António*, Bernardes João**
*Department of Obstetrics and Gynecology, Centro Hospitalar Entre o Douro e Vouga
**Hospital S. João and Faculty of Medicine, University of Porto, Portugal

Objective: Office hysteroscopy is a procedure that can be done with minimum discomfort and inconvenience for the patient without any analgesia or anaesthesia.
Materials and methods: Meanwhile, some patients without anesthesia experience moderate to severe pain. Therefore, many hysteroscopy procedures are performed with resource to some medications and techniques including analgesics, local anesthetics, and ansiolytics. The aim of this study was to assess whether clonixine before office hysteroscopy could reduce procedure-related pain. A randomized double-blind placebo controlled trial is ongoing in our department. Visual analogue scale of pain was measured during the procedure and 15 minutes after it.
Results: Participants were submitted to histeroscopy mostly with vaginoscopic access, using normal saline as distension medium, no speculum or cervical grasping, and a 4 mm hysteroscope.
Conclusion: The authors present study´s interim results and conclusions.

P3_25

The role of hysteroscopy in IVF-ET patients

P. Cirillo (*), E. Lugo (*), V. Cuccolo (**), M. Benigna (**), L. Mencaglia (*)
Infertility Division of Florence Centre of Ambulatory Surgery (*) Gynecological and Obstetrics Clinic of Hospital Maggiore of Novara (**)

Introduction: The incidence of pathologic findings on hysteroscopy is high in patients with infertility and with repeated failures of IVF-ET. Diagnostic hysteroscopy is the gold standard in the detection of intrauterine pathology and is well tolerated in the office setting.
Methods: From 2005 to 2008, 1098 infertile patients have been submitted to diagnostic hysteroscopy to evaluate the cervix and uterine cavity in the Infertility Division of Florence Centre of Ambulatory Surgery. Data on hysteroscopic and pathological findings were retrospectively collected.
Results: In this study the rate of intrauterine pathologies was 30,97% in according with the previous trials in literature. Mullerian malformations are the most recurrent alterations of uterine cavity.
Conclusions: Office hysteroscopy should be performed as a routine infertility examination on all patients before IVF-ET.

P3_26

Intrauterine retention of fetal bone: a rare case of abnormal uterine bleeding

S. Arena, S. Canonico, G.F. Brusco, G. Affronti
Ostetricia e Ginecologia Azienda Ospedaliera di Perugia, Perugia, Italy

Objective: Intrauterine fetal bones retention is rare and generally occurs after a spontaneous or induced abortion. Foetal bone may cause different clinical symptoms like increased menstrual loss and intermenstrual bleeding. Few cases in the literature reported the association among foetal bone retention and metrorrhagia.
Materials and methods: We reported a case of a 55 year- woman complaining of vaginal bleeding and mild pelvic pain. She had two spontaneous deliveries and a surgical abortion at 23th week of gestation 13 years before. Ultrasound revealed a bright-hyperechogenic image in the uterine cavity, similar to an intrauterine device, suspicious for a retained fetal bone. Endometrium was normal. Diagnostic hysteroscopy showed the presence into the uterus of a strange solid and flat structure, that could be referred to a long fetal bone. The ossified fragment occupied about 1/3 of the uterine cavity and it was strongly embedded into the myometrium. Patient was submitted to an operative hysteroscopy and the tissue removed.
Results: She had no intra and post-operative problems. In cases of suspected foetal bone retention, pelvic ultrasound should be the first diagnostic tool.
Conclusions: Diagnostic hysteroscopy is mandatory in such patients because it has both diagnostic and therapeutic value. Operative hysteroscopy should be the gold standard treatment of fetal bone retention. We recommend to suppose this condition in patients with an anamnesis positive for abortion.

P3_27

Influence of hysteroscopy in prognosis of endometrial cancer

Roser Nonell Monegat, Christian Sisó Raber, Inma Alonso Vargas, Jaume Pahisa Fabregat
ICGON Hospital Clinic Provincial Barcelona, Barcelona, Spain

Objectives: There is controversy about the impact on prognosis of hysteroscopy in diagnosis of endometrial cancer as it is supposed to spread endometrial cancer cells into the peritoneal cavity. This study aims to compare hysteroscopy as a diagnostic tool of endometrial cancer with other diagnostic methods in terms of prognosis.
Material and methods: A total of 230 patients diagnosed of having endometrioid FIGO stage I endometrial cancer between 1996 and 2004 were included. All patients were surgically treated. The items studied were: positive peritoneal citology, disease-free survival and overall survival.
Results: Hysteroscopy was performed in 78 cases (34%). There was a positive peritoneal citology in 7 cases: 2 after hysteroscopy, 4 with other diagnostic methods and unknown in 1 case. The mean follow-up was 69.23 (1.13–153) months. There were 11 recurrences and 6 deaths. In terms of survival, significant differences were found depending on peritoneal cytology results ($p<0.005$). However, no differences were found between hysteroscopy and other diagnostic methods ($p=0.3$). In terms of disease-free survival no differences were found depending on peritoneal cytology ($p=0.2$) and the diagnostic method ($p=0.4$).
Conclusions: No association was found between the diagnostic method and peritoneal spread, although large series should confirm our results.

P3_28

Should we change our behaviour with endometrial polyps?

A. Gorostiaga, I. Villegas*, D. Andía, J.C. Quílez, J.I. Arambarri, T. Dehesa, I. Brouard*, M. López-Valverde
*Departments of Obstetrics and Gynaecology. *Hospital San Francisco Javier and Hospital of Basurto, Bilbao, University of the Basque Country, Spain*

Objective: To evaluate the findings and results in surgical hysteroscopies performed to resect endometrial polyps not suitable to be managed by office hysteroscopy. Our aim was to analyze if endometrial polyps should still be systematically resected.
Materials and methods: Retrospective evaluation of 411 polipectomies performed between January 1998 and December 2008 in the Day-Surgery Units of our departments, using a resectoscope STORZ and glicine as distension medium. We registered histopathology, complications, duration of surgery and loss of glicine. The hysteroscopies were all performed by the same three gynaecologists, with regional anesthesia.
Results: Complications were rare: five cases of uterine perforation (4 solved spontaneously and one required laparoscopy) and other 4 cases in which a placement of a Foley catheter to ensure haemostasia was needed. Histopathology showed endometrial adenocarcinoma in 11 cases (2,6%) and hyperplasia with atipias in 10 cases (2,4%). The 11 cases of adenocarcinoma had a hysterectomy made.
Conclusions: In 1999, we reported our first 141 cases of polipectomies performed, enhancing other Units to resect all endometrial polyps. Though routine endometrial polyps resection is sometimes under discussion and ultrasonography is becoming of a great help to rule out malignancy, our data continue to suggest that office hysteroscopy is insufficient to be sure no malignancy is present. Therefore, we newly recommend extraction of large and widely spread polyps for an anatomopathological study as the surgery can be accomplished with regional anesthesia, does not require admission and complications are exceptional.
Bibliography:

- Gorostiaga A, et al. Abstract ESGE
- Goldstein SR et al: "Evaluation of endometrial polyps" AJOG 2002,186:669–674
- Gorostiaga A, et al Hysteroscopy: an alternative to dilatation and curettage in the management of endometrial polyps

P3_29

The effect of anxiety on the tolerability of office hysteroscopy: A randomized double-blind placebo-controlled trial

Gisela Fornelos*, Marta Osório*, Carla Monteiro*, Susana Pinho*, Susana Leitão*, António Lanhoso*, João Bernardes**
* *Obstetrics and Gynecology Department—Centro Hospitalar Entre o Douro e Vouga*
***Hospital S. João and Faculty of Medicine, University of Porto, Portugal*

Objective: Office hysteroscopy is becoming a first line tool for the investigation of abnormal uterine bleeding and other uterine cavity disorders. It is generally a painless procedure that can be done with minimum discomfort, without requiring analgesia or anaesthesia. The patient's anxiety, however, may be a factor that increases stress and the perception of pain associated with this procedure. The aim of the study was to assess whether the administration of a sedative drug like diazepam before office hysteroscopy could reduce procedure-related anxiety and pain.
Materials and methods: A randomized double-blind placebo controlled trial is ongoing at our department. The participants were submitted to hysteroscopy using a rigid hysteroscope with a maximum outer diameter of 4 mm, and normal saline as the distending medium. Patients were asked to score pain perception on a visual analog scale of pain during the procedure and 15 minutes after it, and to state if they would repeat the procedure in the future, if needed.
Results and Conclusions: The authors present the interim results and discussion of the study.

P3_30

Complete hysteroscopic resection of a uterine leiomyosarcoma—a case report

Cristina Nogueira-Silva, Afonso Rocha
Department of Gynecology, S. Marcos Hospital, Braga, Portugal

Objective: Leiomyosarcomas are the second most common type of uterine sarcomas, a group of rare and aggressive tumors. The aim of this work is to present a case report of hysteroscopic resection of an unsuspected uterine leiomyosarcoma.
Materials and methods: A 27 year-old woman presented recurrent abnormal uterine bleeding, since 1 year ago. Physical and gynecological examinations revealed normal findings. Transvaginal ultrasound demonstrated uterus with an intracavitary formation, suggesting an endometrial polyp or a submucous myoma. A blind endometrial biopsy was executed and the histological result normal. A hysteroscopy was performed and a normal-appearing (Type I) submucous myoma of nearly 20 mm was detected on uterine posterior wall. A hysteroscopic myomectomy (using Versapoint® system) was performed and the microscopic exam revealed a leiomyosarcoma. A total abdominal hysterectomy, bilateral salpingo-oophorectomy, ileo-pelvic lymphadenectomy and peritoneal washings were performed.
Results: Histological examination revealed that uterus was already disease free, lymphatic and vascular invasion were not found and peritoneal cytology was negative. The patient was submitted to pelvic radiation therapy and to 6 courses of adjuvant chemotherapy with doxorubicin, dacarbazine and ifosfamide. At 5 years of follow-up the patient has no sign of recurrence.
Conclusions: This case report describes the hysteroscopic diagnosis and complete resection of a uterine leiomyosarcoma in an uncommon young woman.

P3_31

Hysteroscopy evaluation of the uterine cavity in the infertile couple management

C. Tabanelli, AP Ferraretti, E Feliciani, ML Tartaglia, MC Magli, L Gianaroli
S.I.S:Me.R. Reproductive Unit, Bologna, Italy

Objective: Hysteroscopy is the definitive method to asses uterine abnormalities, but being the most costly and invasive procedure, it is not recommended in the initial investigation. Since 2003, our strategy is to perform HSC in all patients before entering IVF/ICSI cycles to evaluate uterine cavity before ET. The present study reports the incidence and distribution of the abnormalities correlated with the previous reproductive history.
Materials and method: Among the 2307 patients who underwent HSC, 548 had previous spontaneous miscarriages (group B) with uterine curettage, 169 underwent previous TOP (group C), 215 had a delivery by spontaneous or ART pregnancy (group D). 1375 women (59.6%) (group A) had a completely negative history.

Results: A completely normal cavity was more frequent in group D, compared to groups B and C ($p<0.005$). The difference between group D an A was not significant ($X2=3.76$). Patients with previous spontaneous abortions had a significant higher incidence of sub-septa compared to women with previous term pregnancies ($p<0.005$). All groups of women with positive history registered significant higher incidence of intrauterine adhesions compared to negative history group.
Conclusions: These data suggest that HSC evaluation of the uterine cavity has to be performed in all patients before entering IVF/ICSI cycles in order to maximize the efficacy and the efficiency of the treatments removing all potential adverse factors. Only previous term pregnancy seems to be a good index of a competent uterine cavity.

P3_32

Efficacy of Essure device five years after placement: long term follow up in 824 women
B. Povedano Cañizares, J.E. Arjona Berral, E. Velasco Sánchez, J.A. Monserrat Jordán, J.E. Ríos Castillo, I. Ilic
Hospital Universitario Reina Sofía, Spain

Objective: Evaluate the efficacy of hysteroscopic sterilization with Essure® device in a cohort of 824 women with five years, follow up.
Matherials and methods: From October 2002 till September 2004 there were performed 824 outpatient hysteroscopic sterilizations in our hospital. All women were provided with a contact telephone number for reporting a possible pregnancy, or side effect.
Results: The placement success rate was 98,55%. During this follow up period there has been only one pregnancy reported.
The woman became pregnant in the same menstrual cycle in which the devices were placed. Essure® effectiveness in preventing pregnancy during this time period was 99,88%.
Complications were banal and unusual: six expulsions and one intramiometrial placement.
Conclusions: The hysteroscopic sterilization with Essure® device is the most effective and safety method for female sterilization.

P3_33

Pregnancy with Essure® micro-inserts. Report of a case
J.J. Serrano Dávalos, J.E. Arjona Berral, E. Velasco Sánchez, B. Povedano Cañizares, I. Romero Nieto, J.E. Ríos Castillo
Hospital Universitario Reina Sofía, Spain

Objective: To report a case of pregnancy in a patient with Essure® micro-inserts.
Materials and methods: Case report. Setting: Hospital Universitario Reina Sofía,Córdoba-Spain.
Case: A 36 year old patient became pregnant 3 years after Essure® placement procedure. In October 2005 an Essure® was correctly inserted through ambulatory hysteroscopy in the right Fallopian Tube. The other Essure® device could not be inserted due that ostium of the left Fallopian Tube was not visible during the procedure. An hysterosalpingrography was performed, demonstrating permeability of the left Fallopian Tube, therefore, left Essure® was correctly inserted through hysteroscopy under anesthesia in the OR. On January 2006, a new hysterosalpingography was done, which confirmed that both Essures were correctly placed and that both fallopian tubes were occluded. Almost 3 years later, the patient had a positive pregnancy test (LMP 21-June-2008). She had an uncomplicated pregnancy to term (39 weeks) and a vaginal delivery of a healthy, 3040 g, male.
Results: Three months postpartum a vaginal sonography was performed, verifying that both micro-inserts are placed correctly.
Conclusions: Laparoscopic bilateral tubal ligation is offered.

P3_34

Assessing the impact of ultrasound on a postmenopausal bleed (PMB) hysteroscopy clinic
J. Siddiqui, de Bono, K. Phillips
Calderdale Royal Infirmary, UK

Objective: There has been recently been the introduction of an ultrasound scan, to facilitate the triage of postmenopausal women prior to their hysteroscopy. All women who were referred to the direct access PMB hysteroscopy clinic were offered transvaginal ultrasound scans (TVS), initially prior to their hysteroscopy. The majority of women with PMB do not have endometrial cancer, TVS is often the screening tool of choice to identify those with the highest malignancy.[1]
Ultrasound has been shown to be perceived as less invasive, better tolerated and preferred by women when compared to outpatient hysteroscopy and endometrial biopsy.[2]
It was important in the initial implementation of the service, to assess local factors and limitations in trying to ascertain the sonographic endometrial thickness, which is useful in discriminating between benign and malignant endometrium.
The standard of an endometrium of 4 mm was used initially as a cut off, in line with published data[1] These women would avoid having a hysteroscopy and have a pelvic examination, mainly to exclude to vulval, vaginal and cervical causes of PMB.
This was a prospective audit to evaluate the implementation of transvaginal ultrasound as a first line test in the assessment of PMB. Additional information that may have been obtained from a transvaginal scan as opposed to just clinical examination and hysteroscopy were also noted.
Those findings of thickened endometrium on ultrasound were to be correlated with hysteroscopy findings and histology results.
Materials and methods: The notes of all women who were referred to the fast track PMB hysteroscopy clinic, and were offered scans prior to this, were reviewed. This review was performed prospectively on a weekly basis, from July 2007 for a 7 month period. Ultrasound findings of endometrial thickness, polyps, fibroids, ovarian cysts and ascites were noted. The findings were correlated with the hysteroscopy findings, any pipelle results available and any other outcomes noted.It was also noted if a hysteroscopy was avoided as there was a reassuringly thin endometrium.
Results:

- 52 women referred with PMB to the outpatient hysteroscopy clinic were offered a transvaginal ultrasound.
- The age range of the women was between 45 years and 93 years old.
- 19 women (36%) had an endometrial thickness of less than 4 mm and thus avoided hysteroscopy.
- 5 women ((9%) had between Grade 1–3 endometriod adenocarcinoma diagnosed. They all had endometrial thickness on ultrasound of between 16–30 mm.

- 4 women (7%) had ovarian masses. One was a borderline mucinous cystadenoma, and two were maliganant tumours. The other was a benign complex cystic mass.
- 6 women (11%) with endometrial thicknesses between 10 mm–24 mm had benign polyps diagnosed on hysteroscopy and histology.
- Sonographic endometrial thickness was unable to be measured in 4 women (7%), therefore requiring hysteroscopy.
- 6 (11%) women had a normal hysteroscopy and histology, despite having a thickened endometrium on ultrasound.

Conclusions: Most women find transvaginal ultrasound more comfortable and acceptable than hysteroscopy$_1$ Both investigations vie for first position in the investigation of PMB and often both are performed. 36% of women avoided the more invasive procedure of the hysteroscopy. A cut off of 4 mm is in line with published data $_2$ and ultrasound has one of the lowest rates of false negative diagnosis. In the presence of other ultrasonographic abnormalities or persistent bleeding, then an endometrial biopsy and hysteroscopy should be performed eg intracavitary fluid or lesion. $_3$ Studies have shown that using ultrasound using a 4-mm cut off for triage is more cost effective than hysteroscopy alone. The strategies involving initial evaluation with ultrasound and endometrial biopsy or hysteroscopy alone were not cost-effective. Although this cost analysis did not account for potential litigation from women who had missed cancers, the low false negative rates of ultrasound makes this unlikely.$_4$The introduction of the transvaginal ultrasound for postmenopausal bleeding women has been of benefit. It has reduced the hysteroscopy rate and diagnosed otherwise unknown ovarian tumours.

P3_35

The use of hysteroscopy in the management of abnormal uterine bleeding

MT Bekhit
James Paget University Hospitals NHS Foundation Trust, United Kingdom

Objective: Hysteroscopy is the gold standard in uterine cavity evaluation (structural & histological assessment). The procedure is relatively simple and safe, however it is costly and invasive, and its use needs monitoring. To ensure the procedure is used appropriately (for the right reason), and efficiently (information obtained influenced the management).

Criteria: NICE clinical guideline 44 2007, RCOG guideline 1999

Materials and methods: Retrospective study, 01/01/2006–30/06/2006, 94 procedures

Results: USS prior to hysteroscopy was performed in the majority of cases (90%). EB prior to hysteroscopy was performed in less than 50% of cases. In the absence of structural and histological abnormalities, medical treatment was not offered prior to hysteroscopy in 18% of cases. Hysteroscopy influenced the management in 88% of cases.

Conclusions: EB should be attempted in OPD even in the presence of gross pathology. Difficult EB should be attempted under LA prior to hysteroscopy. SIS may obviate the need for hysteroscopy when USS is inconclusive. Procedures in high risk patients should be undertaken by a senior person. Hysteroscopy should be considered in all cases of PMB when ET is increased even in the presence of a negative EB result. Resection of a submucous myoma should be considered in selected patients to avoid the need for repeat hysteroscopy/hysterectomy.

P3_36

A postraumatic transverse vaginal septum with hematocolpos: a case report

M.C. Castillo, M.A. Sanroma, O. Vega, R. Romaguera, J. Monleón, J. Gilabert-Estellés
Department of Gynecology. Universitary Hospital La Fe, Valencia, Spain

A 12-year-old girl consulted in our center due to colic pelvic pain and cryptomenorrhea. She was accidentally wounded in the lower abdomen 3 years before due to a traumatism requiring vesical reconstruction by laparotomy.

Abdominal ultrasound detected an hematocolpos of the upper third of the vagina and a second hypoechogenic space extending to the upper rectovaginal septum and pouch of douglas. Exam under general anesthesia showed a transverse septum at the lower third of vagina that drained abundant menstrual blood after its opening. A second septum with vaginal estenosis was identified at the upper third of vagina and was opened using blunt dissection. The retrouterine hypoechogenic image disappeared after perforating the upper septum. Patient was discharged but required a second intervention 2 weeks later due to recurrence of the hematocolpos and acute pelvic pain. During a second intervention, a vaginoscopy was performed using a 5 mm hysteroscope with a bipolar electrode (Versapoint, Gynecare). A vaginal stenosis was detected at the lower vagina and the recurrent transverse septum at the higher third of the vagina was opened using bipolar electrocoagulation. This maneuver allowed the visualization of the cervix and vaginal fornix and the identification of an anfractuous canal sited at the right vaginal fornix that led to a virtual cavity without epithelium. This cavity extended into the rectovaginal septum and was probably created due to a dissection of the hematocolpos through a posttraumatic vaginal scar. The upper transverse septum and the lower stenosis was partially excised using bipolar cut and methylene blue test assessed bladder and rectal integrity at the end of the procedure. Patient was trained in the use of vaginal cones after the surgery in order to prevent stenosis and maintain vaginal patency. Meanwhile, impossibility of introduction of the cones at the upper vagina led to reintervention and a permanent tube-like prosthesis was placed under sedation at the upper vagina with suturing. Patient was placed under two cycles of GnRH analogs in order to avoid reformation of the hematocolpos and prosthese was retired 3 weeks after assessing a good healing of the vaginal mucosa. In conclusion, this complex vaginal malformation is probably secondary to a traumatism in prepuberal age. Hysteroscopic access permits an accurate diagnosis in addition to the restoration of the vaginal anatomy and assures a permanent drainage of menstruation in a young girl without vaginal intercourses.

P3_37

The Reproductive Outcome of 45 Cases of Complete Septate Uterus with Duplicated Cervix and Longitudunal Vaginal Septum

Esra Tonguc[1], Turgut Var[1], Yasemin Atayer[1], Sertac Batioglu[1]
Zekai Tahir Burak Women's Health Research and Education Hospital, Department of Reproductive Endocrinology, Turkey

Objective: The aim of this study was to evaluate the reproductive outcome of patients with complete septate uterus, duplicated cervix and longitudunal vaginal septum after hysteroscopic metroplasty.

Materials and methods: Forty-five patients who presented to the Infertility Unit at our hospital between 1996–2006 were included in

the study. All patients underwent hysteroscopic metroplasty and vaginal septum incision at the same session. Patients were assigned to two groups according to their presenting complaints. The first group had 29 patients who presented with infertility, while the second groups consisted of 16 patients who suffered pregnancy loss. Fifteen of the 29 patients in the first group got pregnant after operation. Six of these pregnancies went to term, while 2 ended in preterm deliveries. There were 8 surviving infants. The preoperative pregnancy loss rate of the 16 patients in group two was 96% of a total of 29 pregnancies.

Results: Post-operatively patients in this group had 20 pregnancies, 15 of which went to term, with only 1 preterm delivery. With a total of 16 surviving infants, the postoperative live birth rate was 80%.A marked decrease in postoperative pregnancy loss rates is paralleled by an increase in live term birth rates.

Conclusions: The treatment of septa is still a center of controversy in the infertile population. In light of the increased pregnacy rates observed in our study on an exclusive group of patients, we advocate the use of hysteroscopic metroplasty in the treAtment of septa.

P3_38

Use of the vaginoscopic technique for reducing the pain of outpatient hyseroscopy: a systematic review

N. A. M. Cooper, P. Smith, K.S. Khan, T.J. Clark
University of Birmingham, United Kingdom

Object: Standards of care state that diagnostic and operative outpatient hysteroscopy services should be available in the community and hospital setting. For this to be possible the procedure needs to be acceptable to patients. The aim of this systematic review is to look at how the use of the vaginoscopic ('no-touch') technique affects the patient's pain experience during out-patient hysteroscopy.

Materials and methods: A systematic review and meta-analysis of all published randomised controlled trials that look at the use of the vaginoscopic approach during out-patient hysteroscopy. EMBASE, Medline, CINAHL and the Cochrane library were all searched for relevant studies. The abstracts of all the resultant studies were read by two doctors independently and studies that met the inclusion criteria selected. The full articles were then obtained and further studies were excluded. The references of all selected studies were searched to ensure that any relevant studies had been not been overlooked. Where possible meta-analysis was performed using RevMan.

Results: Results suggest that using a vaginoscopic technique is significantly less painful than using a traditional approach using a speculum (Standardised Mean difference (SMD) −0.35, 95% CI −0.59 to −0.10). The results also suggest that the number of failed examinations is not significantly increased when the technique is used (SMD 0.78, 95% CI 0.45 to 1.36).

Conclusions: Vaginoscopy should be the standard technique for outpatient hysteroscopy, especially when successful insertion of a vaginal speculum is anticipated to be difficult. Larger studies are indicated to better assess the feasibility of vaginoscopy in relation to patient characteristics (BMI, menopausal status, parity, caesarean section) and type of hysteroscope (size, angle, rigid / flexible endoscopes) as well as risks of ascending pelvic infection. Vaginoscopy allows increased external movement of the hysteroscope. Future studies should assess whether this manoeuvrability improves the feasibility and effectiveness of operative hysteroscopy.

P3_39

Sonohysterography with constant infusion pressure vs traditional evaluation methods of submucous myomas in their classification (ESH, STEP-W) and qualification to hysteroscopic myomectomy

A. Ludwin, I. Ludwin, P. Basta, A. Knafel, T. Banaś, A. Basta
Department of Gynecology and Oncology of Jagiellonian University, Krakow, Poland

Objective: To present and compare the sonohysterography with constant infusion pressure (SGH-CP) as preoperative evaluation method of submucous myomas in their classification and qualification to hysteroscopic myomectomy to traditional diagnostic methods i.e. USG-TV, hysteroscopy (DH), and conventional sonohysterography. (SHG).

Materials and methods: 58 women underwent preoperative evaluation of myomas according to ESH and STEP-W classification by USG TV, SHG, SHG-CP, DH and were compared with intraoperative assessment by transrectal intraoperative ultrasonography during hysteroscopy. Electronically controlled constant infusion pressure of saline solution during SGH-CP (120 mmHg) was used. Statistical analysis: Chi2 Pearsons and tau-b Kendall tests.

Results: Group affinity of myomas by ESH classification and assessment by STEP-W system was completely accordant with intraoperative results of assessment if to diagnostics SHG was used (tau-b=1). High conformity was obtained by using traditional SHG (tau-b=0.96 and 0.94) and DH (tau-b=0.84 i 0.85). USG TV showed the lowest conformity (tau-b=0.71 i 0.7).

Conclusions: SHG-CP should be the method of choice in preoperative assessment of myomas qualified to hysteroscopic myomectomy. This especially concerns the myomas with deep penetration of myometrium.

P3_40

The diagnostic value of SHG, HSG and outpatient hysteroscopy in differential diagnosis of Mullerian duct anomalies: uterine septum, bicornuate and arcuate uterus

A. Ludwin, I. Ludwin, T. Banaś, A. Knafel, M. Międzybłocka, A. Basta
Department of Gynecology and Oncology of Jagiellonian University, Krakow, Poland

Obective: To compare the diagnostic accuracy of SHG, HSG and hysteroscopy in differential diagnosis of Mullerian duct anomalies: uterine septum, bicornuate, arcuate and normal uterus.

Materials and methods: 51 women with a history of RSA or infertility with the initial ultrasound –based diagnosis of uterine septum were referred to the University Hospital. Diagnostic work-up comprised sonohysterography, hysterosalpingography and outpatient diagnostic hysteroscopy. In order to assess the accuracy of these methods all the patients underwent hysterolaparoscopy. The diagnostic accuracy of the each method were compared to each other with the use of test of fraction.

Results: Sonohysterography is the best of all methods examined in differentiation of the uterine septum with accuracy, PPV, NPV, sensitivity and specificity of 100%. The diagnostic accuracy of HSG and diagnostic hysteroscopy reached 86.3% and 76.5% respectively,

and were significantly lower ($p<0.05$) to that of SHG. The accuracy of HSG (100%) in diagnosing of the arcuate uterus was found to be the most reliable method of all that were studied.
Conclusions: The sonohysterographic diagnosis of the uterine septum eliminates the need of routine laparoscopy before hysteroscopic metroplasty and the use of other imaging techniques in order to differentiate from other uterine malformations, bicornuate uterus in particular. HSG is an adequate method to establish diagnosis of the arcuate uterus.

P3_41

Tumor size by hysteroscopy
Mikel Gorostidi, Borja Rivero, Leire Goyeneche, Olatz Lizartza, Larraitz Ibañez
Obstetrics and Gynecology department, Hospital Donostia, San Sebastián, Spain

Objective: To evaluate hysteroscopic assesment of tumor size in adenocarcinomas.
Materials and methods: We present an study performed at Donostia Hospital in San Sebastián (Spain) with 53 adenocarciomas from 1st January 2008 to 31th july 2009. We evaluated the size of the tumor, as less or more than 2 cms by hysteroscopy, and correlate it with the size histologically after surgery.
Results: The sensibility and specifiity of hysteroscopy is 90,7% (CI 95% 76,95–96,98 and 29,88–98,95). The Positive Predictive Value (PPV) is very high, 97,5% (CI 95% 85,27–99,87). The positive likelihood ratio LH(+) of hysteroscopy to evaluate tumors of more than 2 cms is 4,53 (CI 95% 0,78–26,25)
Conclusions: There are some factors that can affect the decision wether to perform or not a paraaortyic lymphadenectomy in endometrium adenocarcinomas. Hysteroscopy can help preoperatively to decide to do it and give the possibility for the surgeon to make an extraperitoneal paraaortic lymphadenectomy at the start of the oncologic procedure.

P3_42

Adenomyosis: hysteroscopic findings
Mikel Gorostidi, Jone Paredes, Borja Rivero, Miren Arrue, Larraitz Ibañez
Obstetrics and Gynecology department, Hospital Donostia, San Sebastián, Spain

Objective: To show hysteroscopic findings that could match to adenomyosis.
Material and Methods: Our experience since 1 sr january 2000 to 31th december 2008 with 2800 histeroscopies done at Donostia Hospital in San Sebastián (Spain).
Results: We find hysteroscopic views of irregular defects (cavities) in endometrium, hipervascularization and hemorrhagic cystic lesions.
Conclusions: The diagnosis of adenomyosis is very difficoult based on symptons or ultrasound or RM exams. There is one more tool, based on hysteroscopic findings, that can be helpful to diagnosis adenomyosis in some patients.

P3_43

Scanning electron microscopy of endometria from patients with septate uteri
Ban Frangez Helena[1], Nikas Yorgos[2], Nika Eleni[3], Tomazevic Tomaz[1]
[1]*University Women Hospital Ljubljana, Ljubljana, Slovenia*
[2]*Athens Innovative Microscopy, Athens, Greece*
[3]*Department of Pathology, Metropolitan Hospital, Athens, Greece*

Objectives: To investigate whether women with septate uterus have microscopic abnormalities on the septal or lateral wall endometrium.
Materials and methods: Prospective, observational study in University Women's Hospital, Ljubljana. Endometrial biopsies were taken on days LH +5 to +11 from 40 regularly menstruating women with uterine septum classified as Class V according to the American Fertility Society. Samples were obtained through hysteroscopy from both the septum and the lateral wall and were processed and examined in light and scanning electron microscopy. Main outcome measures: Morphology of secretory epithelial cells, microvilli and pinopodes. Histology.
Results: 78% of samples from septum (28 out of 36) and 77% from lateral wall (24 out of 31) showed ultrastructural abnormalities on the surface epithelium i.e. few or absent pinopodes, dense microvilli forming tufts and presence of degenerate cells. There were no significant differences in morphology between the septum and the lateral wall. From 32 samples examined in histology 14 (44%) were found retarded more than 3 days.
Conclusions: Septate uterus is frequently associated with microscopic endometrial abnormalities which may affect uterine receptivity and be implicated in infertility associating this malformation.

P3_44

Reducing 'failure of completion' in outpatient hysteroscopy
S. Majumdar, T. Dada
Department of Obstetrics & Gynaecology, Stoke Mandeville Hospital Aylesbury, UK

Introduction: Outpatient hysteroscopy (OPH) has emerged as an important diagnostic and therapeutic tool in the management of women with abnormal uterine bleeding. The benefits include reducing unnecessary exposure to general anaesthesia and freeing up capacity on inpatient lists
Methodology: All hysteroscopies are performed with the Versascope System. Initially we employed use of a speculum with or without a tenaculum—the traditional group. Since 2006 we have used vaginoscopy widely—the vaginoscopy group. Data was available for analysis over 5 years from 2004–2008.
Results: A total of over 2200 OPH were performed at SMH over the study period. The mean age of patients was 54.3 yrs (range 19–96 years), 38.5% were postmenopausal, 11% nulliparous and 5.8% had previous vaginal and cervical surgery . OPH was successful in 92.4% of patients. Failure to complete OPH occurred in 173 patients (7.62%). The main causes were postmenopausal, (50.2%), severe pain (32.3%), nulliparity (21.3%), previous surgery (7.5%), inability to tolerate a speculum (2.9%), vasovagal reaction(1.73%). 84.4% had failure of completion within the traditional hysteroscopy compared to 15.5% within the vaginoscopy group.

Conclusion: Our results show that hysteroscopy is successful in the outpatient setting. We have been able to identify risk factors for failure of which postmenopausal status is the most prevalent cause. There are many strategies that assist completion of OPH and it would seem that vaginoscopy is extremely beneficial in successfully performing outpatient hysteroscopy.

P3_45

Hysteroscopy—three years of experience at S. Marcos Hospital—Portugal

Teresa Ramos, Cristina Nogueira-Silva, Afonso Rocha
Gynecology Department, S. Marcos Hospital, Braga, Portugal

Introduction: Hysteroscopy was first described by Pantaleoni in 1969, but it was in the last decades that became a standard diagnostic and therapeutic tool for gynecologists.
Methods: Retrospective study of hysteroscopies performed at S. Marcos Hospital between 2006 and 2008. Clinical reports were analyzed concerning: personal history, findings, procedures, histology and complications. It was studied the correlation hysteroscopy / histopathology (using coefficient of concordance Kappa) as the sensitivity and specificity of the method.
Results: 449 hysteroscopies were performed. The mean age was 56,9± 13,95 years.
The most frequent indications were endometrial thickening (50%), endometrial polyp (26%) and postmenopausal bleeding (8%). The hysteroscopic appearance was polyp in 60%; 26% endometrial atrophy/cystic atrophy, 10% myoma, 7% normal, 5% lesions suggestive of malignancy and 5% endometrial hyperplasia. Surgical hysteroscopy was performed in 71% of patients, mainly polypectomy (71%); 19% have done endometrial biopsies, and 6% Essure® placement. The coefficient of concordance Kappa between hysteroscopy and histology was 0,78 with $p<0.05$ (excellent agreement). For endometrial polyps, hysteroscopy had the highest sensitivity and specificity (96% and 86%) with an accuracy of 92%. For malign pathology sensitivity was 76%, specificity 98%, and accuracy 97%. Complication rate was 0.7%.
Conclusions: Hysteroscopy is a safe diagnostic/ therapeutic procedure with a wide range of applications. It has high sensitivity and specificity, especially for polyps, but also, and more important, for malignant lesions. Otherwise, it can be performed in an outpatient setting with better costs and a very low complication rate.

P3_46

Heavy menstrual bleeding: progesterone intrauterine system versus endometrial ablation. A retrospective study

A. Marzal, B. Varo, M. Molina, P. Polo, A. Taverner, J. Gilabert-Estellés
Department of Gynecology. Universitary Hospital La Fe. Valencia, Spain

Introduction: Heavy menstrual bleeding is a very important public health problem in women. One in twenty women, between 30 and 49 years old, consults to the specialist for menstrual disorders that interfere with her quality of life.
Objective: To compare retrospectively the Levonorgestrel intrauterine system (LNG IUS) and hysteroscopic endometrial ablation (EA) for the treatment of heavy menstrual bleeding.
Materials and methods: A retrospective study was performed between the patients who had undergone hysteroscopic endometrial resection as a treatment versus LNG IUS for heavy menstrual bleeding without intracavitary pathology, in the period 2000–2009 at our department. The menstrual blood loss was measured according to the days of bled and the subjective evaluation of patient using a standard visual scale for vaginal bleeding. Bleeding pattern and late adverse events were assessed at one and six months postoperatively and 3 and 6 months postinsertion of the LNG IUS.
Results: A total of 54 patients met the inclusion criteria: 34 patients of endometrial ablation and 20 of LNG IUS. Both groups were effective at reducing heavy menstrual bleeding. Six months after the treatment 96,8% of patients with EA and the 83,3% of patients with LNG IUS improved significantly their quality of life. There were not statistically significant difference in the bleeding pattern and the requirement of additional treatment. One patient of the EA group presented postoperative persistent pain and no major intraoperative complications occurred in this group. There was a failure in the IUS insertion in one case, two patients had an spontaneous expulsion of the device and three patients presented postinsertion pain.
Conclusion: The efficacy of the LNG IUS and of the hysteroscopic EA in the treatment of heavy menstrual bleeding are similar. EA achieves a higher and permanent improve in quality of life meanwhile LNG IUS is a non invasive therapy with good postinsertion results.

P3_47

Endometrial polyps in postmenopausal women: malignancy after hysteroscopic resection

Raquel Dibi, Carla Vanin, Kelly Rocha, Alice Ayub, Suzane Almeida, Suzana Pessini
Universidade Federal de Ciencias da Saude de Porto Alegre and Complexo Hospitalar Santa Casa, Brazil

Introduction: Endometrial polyp (EP) is a benign lesion, with low potential for malignancy. Highest incidence occurs between 51 and 70 years.
Objective: To determine the frequency of malignancy in intra-uterine polypoid lesions without suspicion, resected by hysteroscopy in postmenopausal women.
Methods: A cross-sectional study with review of hysteroscopic sheets and pathology reports. 238 post-menopausal patients submitted to hysteroscopic resection of endometrial polyps, from January 1999 to October 2006 in our Department.
Results: Malignant and pre malignant histopathology occurred in 3 patients (1,2%): adenocarcinoma in 2/238 (0,8%) and atypia in 1/238 (0,4%).
Conclusion: Because of the absence of a reliable non-invasive method to make the difference between benign from malignant cases, the complete resection of EP is the only safe way to obtain a definitive diagnosis despite of the low incidence of malignance in these lesions.

P3_48

Galloping Sepsis and Death after Hysteroscopy Due to Pyometra and Adenocarcinoma of Endometrium

M. Andrés, L. Viguri, I. Brouard, S. Díez, M. Goitia, T. Martínez
Cruces Hospital, Barakaldo (Vizcaya), Spain

One presents the case of a 85-year-old patient who comes for diagnostic hysteroscopy due to pyo-haematometra suspected by ultrasound scan. The previous biopsies were compatible with atrophic endometrium. During the hysteroscopy with constant flow we drained off the pus and it was targeted one ulcered suspicious zone (Pathological anatomy: ulcered adenocarcinoma of endometrium/ degree II). Immediately the patient begins with disorientation, hypotension and saturation difficulty that needs immediate transfer into an intensive care unit.

The diagnosis in the I.C.U. is of sepsis Respiratory Difficulty Syndrome with multisystemic affectation (alteration of the coagulation, renal failure,…) that finally they ended up by causing the death of the patient. The Axial Computerized Tomography reports of uterine mass of 4 cms that concerns the totality of thickness of the myometrium up to serous, without evidence of adenopathies (FIGO stadium: IIIA); it is rejected uterine perforation. The family members did not request autopsy for what we don't know a "surgical" stadium. In these case we highlight the aggressiveness of the adenocarcinoma of endometrium, IIIA stadium and we raise the different possibilities of managing of a pyometra, considering that the ideal method of treatment and diagnosis of the underlying reason is the hysteroscopy with constant flow, in spite of the conclusion of this case.

P3_49

Persistent pain after hysteroscopic sterilization with Essure® microinserts. A case report

J.E. Arjona Berral, E. Velasco Sánchez, B. Povedano Cañizares, I. Pizarro Caballero, J.J. Serrano Dávalos
Hospital Universitario Reina Sofía, Cordoba, Spain

Background: Postprocedure pain after microinserts placement is typically minimal and brief. This report describes a case of intractable pelvic pain after placement, requiring removal of them.

Case: a 26 year old gravida 1 para 1 women underwent an uncomplicated office hysteroscopic tubal occlusion. Three months after procedure started with chronic pelvic pain. Physical examination was unremarkable, and pain was the only symptom. The radiograph revealed correct placement of microinserts. Ultrasound and MRI revealed no pathology. She underwent treatment with analgesics without relief. The patient was treated with antibiotics for presumed salpingitis without relief.

Nine months after procedure the patient underwent laparoscopy for evaluation of pain. Accordingly, the devices were removed and salpingectomies performed without difficulty. The pathologist result of the fallopian tubes was given as normal. One month after laparoscopy, the patient referred no improvement in pain and referred to general surgeon. She is steel under study by General Surgery. A new laparoscopy has been performed for exploration and for appendicectomy, without results.

Conclusion: Pain after microinserts placement can appeared and there is not always a casual relationship between them. Nevertheless, it must be in the differential diagnosed.

P3_50

Hysteroscopy in the assessment of post-menopausal uterine bleeding

Cristina Nogueira-Silva, Teresa Ramos, Alfonso Rocha
Department of Gynecology, S. Marcos Hospital, Braga, Portugal

Introduction: Post-menopausal uterine bleeding (PMUB) is a common symptom with major clinical relevance, since it is the most frequent endometrial cancer presentation.

Methods: A retrospective study of patients who underwent hysteroscopy for assessment of PMUB between January 2006 and December 2008, at S. Marcos Hospital in Portugal. It was studied hysteroscopic findings, histological diagnosis, their level of agreement (coefficient of concordance kappa) and sensitivity, specificity and accuracy of hysteroscopy.

Results: A total of 139 women were studied, with mean age of 63.5± 10.5 years. Hysteroscopic evaluation demonstrated that 54% of women had endometrial polyps, 17% endometrial atrophy/cystic atrophy, 9% intra-cavity mass suggestive of malign pathology, 7% submucous myoma, 7% focal/diffuse endometrial hyperplasia and 6% had normal findings. The coefficient of concordance kappa between hysteroscopic and histological diagnosis was 0.712 ($p<0.05$). Hysteroscopy had a sensitivity of 94% and specificity of 87%, with an accuracy of 91% for endometrial polyps, a sensitivity and specificity of 67% and 98%, respectively, with an accuracy of 96% for submucous myomas, and a sensitivity and specificity of 71% and 100%, respectively, with an accuracy of 96% for malign pathology.

Conclusions: This study demonstrates that benign endometrial abnormalities are the most frequent cause of PMUB. Moreover, the elevated coefficient of concordance confirms hysteroscopy as accurate in the assessment of PMUB.

P3_51

Use of hysteroscopic narrow-band imaging in endometrial diagnosis

Tansu Küçük
Gata Obstetric and Gynecology Department, Ankara, Turkey

Objectives: The narrow-band imaging (NBI) system is a novel technology that enhances the visualization of microvasculature and mucosal patterns. A pilot study was designed to evaluate whether a narrowband imaging (NBI) endoscopic light source could detect endometrial pathology that were not identifiable with a visible light spectrum hysteroscope.

Methods: A total of 12 patients with endometrial pathology (n. 5 endometrial polip ,n:3 Endometrial eko thickness, n. 2 habitual abortus, n. 1 IVF failure, n. 1 Abnormal uterin bleeding) were examined by NBI endoscopy, and visible endoscopy between April 2009 and June 2009 at the GATA Hospital, Ankara TURKEY. Endoscopic evaluation was performed using an endoscope that was fitted with a NBI light source using 415- and 540-nm filters. 12 biopsy specimens were taken using NBI; 12 biopsy specimens were taken using visible light.

Results: The median age of the patients was 40 years (range: 20–60 years).Endometrial lesions were diagnosed histologically endometrial polyp-proliferative endometrium, endometrial polyp-proliferative endometrium, endometrial polyp-proliferative endometrium, endometrial polyp-chronic nonspecific endometrit, endometrial polyp-non

neoplastic endometrium, Endometrial eko thickness—proliferative endometrium, Endometrial eko thickness—non neoplastic endometrium, Endometrial eko thickness—non neoplastic endometrium, Habitual abortus- proliferative endometrium , Habitual abortus- proliferative endometrium, IVF failure—early secretory endometrium, Abnormal uterin bleeding-(visible light) non neoplastic endometrium-(NBI) Atipic hyperplasia.

Conclusion: Capillary patterns observed by NBI with magnification will be used to assess the degree of atypia in endometrial pathology.

P3_52

Hysteroscopic sterilisation (Essure® Microinserts): evaluation of 300 cases

Laura Almarza, Teresa Muñoz, Teresa Castellanos, Jose Rojo, M. Angel Huertas
Hospital Universitario de Getafe, Madrid, Spain

Background: We present our experience in the introduction of Essure microinserts. Setting is a university tertiary hospital

Material and methods: 300 healthy female patients underwent Essure insertion, between 4/2004 and 12/08. Premedication with ibuprofen or buscapine one hour previous to the surgery was prescribed. A direct vaginoscopy approach for histeroscope introduction was used (without speculum, tenacles nor local anesthesia).

Results: Successful bilateral placement of Essure microinserts in 94% procedures: in 270 patients (90%) both inserts introduced the same day, and another 15 patients (4.52%) required two attempts. In four women, insertion of only one device was possible (1.2%). Two procedures failed because of cervical stenosis (0.62%); and another 2 failures because of spontaneous tube obstruction (0.62%).

Insertion took 7 minutes and 1.5% required intravenous analgesia because of vasovagal reactions. No mayor complications occurred. Median time for delivery from hospital was 20 minutes. A three month HSG confirmed in most bilateral blockage, but a few need a 6 month period re-evaluation. At the follow-up: one incorrect positioning (intramiometrial) was discovered, in a septum uteri; one expulsion has been registered. A pregnancy was reported one month after the procedure took place.

Conclusion: Essure system in a safe, cheap, and quick hysteroscopic procedure for transcervical sterilization, in an office outpatient basis.

Case Report

P4_01

Intermediate-term outcome after modified laparoscopic sacropexy: A cohort study

Carolin Banerjee[1], Marc Banerjee[2], C. Fanselau[1], Günter Karl Noé[1]
[1] *Hospital Dormagen, Teaching Hospital Univ. Cologne,* [2] *Cologne Merheim, Univ. Witten-Herdecke, Germany*

Introduction/aims of study: In general, patients suffering from genital prolapse report about vaginal pressure, pain or even an extern bulge. Subjective success rate after surgical repair depends rather on an improvement of these symptoms than on anatomical correct reconstitution of descended parts. Various operative approaches for the repair of a genital prolapse have been reported yet, but for the reconstitution of a physiological axis of the vagina regarding size, depth and slant a sacropexy seems to be the most adequate approach. The gentle laparoscopic sacropexy is a modification of the classical laparoscopic sacropexy. A bluntly and strict superficial preparation between spine and right pelvis, the extra abdominal preparation of the mesh and a perioperative treatment comparable to the "fast track surgery" are some characteristics of this method. The aim of this study was to evaluate the intermediate- term outcome after gentle laparoscopic sacropexy (German method) concerning improvement of vaginal symptoms and subjective success rate.

Study design, materials and methods: 132 patients suffering from genital prolapse higher than grade one POPQ (pelvic organ prolapse quantification) underwent laparoscopic sacropexy in the modification of the German method. In case of an extant uterus we preferred a simultaneous laparoscopic supracervical hysterectomy (n=62). Anterior and posterior colporrhaphia, lateral repair and anti-incontinence operations were performed simultaneously if necessary. All patients were asked retrospectively in a validated questionnaire about vaginal symptoms before and at least one year after operative repair using the ICIQ- VS (German). Additionally subjective success rate was estimated using a self administered rating scale (0=worst result, not content, 10=best result, maximum content). Statistical analysis was performed using SPSS (t-test and Wilcoxon test).

Results: We had a response rate of 84% (n=111). The mean follow-up interval was 22. 2 month (range 13–35 month). Mean age at operation was 59.8 years (31–83 years).

After laparoscopic repair we found an improvement of vaginal symptom score from 20.6 preoperatively to 5.3 postoperatively. Sexual matter score improved from 26.4 to 9.0 after operation. 56.8% of our patients were sexual active. Single item analysis revealed a statistical relevant improvement of all items and scores except vaginal tightness (table1). Improvement of quality of life scores (part b questions) correlated to these findings. After operation interference of vaginal symptoms to daily life (question 14) improved from 6.4 to 1.4. Mean subjective success rate after operation was 8.3 points.

Concluding message: Vaginal pain and lump represent the predominant symptoms in patients suffering from genital prolapse and are reduced adequate after modified laparoscopic sacropexy. Sexual active patients benefit from sacropexy concerning the impairment during intercourse. The modified laparoscopic sacropexy (German method) shows good intermediate- term results respectively improvement of vaginal symptoms and subjective success rate.

Table 1 Statistical parameters of single items (part a) and sum scores

	Mean pre-operative	*Mean post-operative*	*Confidence interval*	*P –value*	*Mean difference*
Vaginal symptoms n=111					
Dragging pain (1)	1.6	0.6	0.8/1.2	<0.001	1.0
Soreness (2)	1.0	0.3	0.5/0.9	<0.001	0.7
Reduced sensation (3)	0.8	0.3	0.2/0.6	<0.001	0.4
Loose vagina (4)	1.7	0.4	1.1/1.5	<0.001	1.3
Lump inside (5)	2.7	0.3	2.1/2.6	<0.001	2.4
Lump outside (6)	1.5	0.05	1.1/1.7	<0.001	1.4
Dry vagina (7)	1.2	0.9	0.1/0.5	<0.01	0.3
Faecal evacuation (8)	0.4	0.1	0.1/0.4	<0.01	0.2
Sum score VS	20.6	5.3	13.3/17.3	<0.001	15.3
Sexual symptoms n=64					
Tight vagina (9)	0.2	0.2	−0.1/0.2	0.66	0.02
Worries (11)	1.6	0.5	0.8/1.3	<0.001	1.1
Relationship aff (12)	1.1	0.4	0.5/0.9	<0.001	0.7
Sex life spoilt (13)	4.8	1.0	2.5/4.1	<0.001	3.3
Sum score sexual	26.3	8.9	13.4/21.6	<0.001	17.4
Interference of life (14)	6.4	1.4	4.5/5.6	<0.001	5.0

P4_02

Endoscopic paravaginal repair: combined suture and polypropylene mesh technique

Carolin Banerjee, Günter Karl Noé
Hospital Dormagen, Teaching Hospital Univ. Cologne, Germany

Synopsis of Video: The method of the lateral repair with mesh inlay is demonstrated in this video sequence. We affirm evidence for the application of that technique.

Hypothesis/aims of study: Paravaginal defects result from a rupture of the arcus tendineus and the adjacent fascia. This type of a cystocele is associated with sustained rugae and elapsed sulci. Lateral repair is an established operative approach for the treatment of paravaginal defects. Only a few clinics perform the laparoscopic approach although some advantages have been described compared to open or vaginal surgery. The use of meshes has not been yet reported for the lateral repair. We here present a video sequence of our modified laparoscopic approach with interposition of a polypropylene-mesh. This approach has been applied successfully in 55 patients during the last three years. With our modifications the lateral repair can be performed within 50 minutes.

Study design, materials and methods: The patient is placed in a dorsal lithotomy position with both arms tucked to her side. A 16 F catheter with a 5 ml balloon tip is inserted into the bladder and attached to a continuous drainage. Operation is done under general anaesthesia.

After routinely position of four access ports (10 mm at the umbilicus, 12 mm superior to the symphysis, two 5 mm ports medial and inferior of the right and left *sup*. *ant*. iliac *spine*) the 12 mm port is retracted outside of the peritoneum. The remaining peritoneal orifice is enlarged to 15 mm and used later as trans-peritoneal entrance for the laparoscope. The 12 mm port is used to detect the pubic ramus. Insufflation with CO2 via the 12 mm port and blunt dissection with the port itself helps to prepare the retropubic space. Both lateral ports are placed under visual control into the space of Retzius. The pubic symphysis and bladder neck are identified in the midline. The Cooper's ligament is prepared to its complete length up to the oblique muscle. Lateral defects are visualized along the pelvic sidewall using a blunt instrument. The surgeon's left hand is inserted into the vagina and elevates the anterior vaginal wall with the adjacent pubocervical fascia to the physiological position. The assistant supports the visualization of the pubocervical fascia laparoscopically from the space of Retzius. A polypropylene mesh of 6 to 4 cm is inserted and placed to cover the defect. A continuous suture is performed using a 2-0 non-resorabable suture of 50 cm length with attached needle starting at the right Cooper's ligament as lateral as possible and ending towards the urethrovesical junction. In order to avoid a displacement of the mesh a fixation with one to two stitches is useful. In general four to six stitches at the ligament and fascia respectively are used for a stable tissue approximation. Suture is completed by the use of an intracorporal knot-tying technique. For the left side the suture procedure is repeated basically, but in general we start medial at the urethrovesical junction and end lateral.

Results: The success rate of our laparoscopic approach is correlating to open or vaginal surgery (98% success rate). We had two intra-operative bladder lesions and no postoperative complication (bleeding, ileus, re-prolapse, mesh erosion). Additionally to the magnification advantages of laparoscopy, a high acceptance of the patients is found.

Interpretation of results: The laparoscopic preparation of the Retzius space is associated with an elevated risk of bladder injury. Lesions healed without problems after intraoperative suture. Meshes support the long time stability of lateral repair by providing a matrix for fibrocytes.

Concluding message: Laparoscopic lateral repair is a good alternative to the open or vaginal approach. The use of a polypropylene mesh elevates the long term stability of the repair. Operation time and costs are not influenced negatively. This video intends to simplify the

laparoscopic approach in order to make it available to a broader range.

P4_03

Giant hydrosalpinx of adolescence

Chang Jae Lee
Daegu Fatima Hospital, South Corea

Giant Hydrosalpinx of adolescence Hydrosalpinx is a common disease in gynecologic practice. But, ginat hydrosalpinx is uncommon disease. Especially giant hydrosalpinx of adolescence is very rare. Because most of hydrosalpinx is the result of chronic pathological condition of the fallopian tube when the fimbrial end of the tube is occluded and distal part distended with fluid and the occlusion usually occurs secondary to pelvic imflammatory disease or endometriosis or adjacent organ inflammation, therefore giant Hydrosalpinx of sexually inactive adolenscents is very rare. Sporadic cases of unilateral noninflammatory hydrosalpinx are reported as isolated postsurgical complications, or as complicaltions of peritoneal drains. However we can't find any condition which occurs hydrosalpinx in this case. We present an unusual case of giant hydrosalpinx of adolensce, which was misdiagnosed as huge ovarian cyst and operated by endoscopy.

Keywords: giant Hydrosalpinx, adolescence.

P4_04

Successful of pregnancy after laparoscopic treatment of ovary androblastoma: a case report

W. Pinheiro, A.K. Cavalcante Pereira, J.M. Soares-Jr, N. Bozzini, G.A. Maciel, E.C. Baracat
University of São Paulo, Brazil

Case description: A 25-year-old woman that presented abnormal uterine bleeding and an increase in hair on legs and face for six months was evaluate at the gynecology division. Also she complained about infertility. The laboratory exams indicated that the hyperandrogenic cause was from ovary (high levels of total testosterone and low of sulphate dehydroepiandrosterone). In addition, the pelvic sonographic exam showed a nodule of 2 cm in the right ovary.

Surgical procedures: After laparoscopic resection of nodule, the tissue was submitted to frost pathologic exam that revealed ovarian well-differentiated tubular androblastoma (sertoli).

Follow-up: Testosterone level returned to normal after one month of treatment. The patients got a pregnancy after three months of treatment. The delivery was through the vaginal route. No recurrence of this tumor was detected after five years of follow-up.

Comments: This is a rare case because the world literature counted only 95 cases. Also, this laparoscopic procedure permitted the patient to have a pregnancy without any other complications.

P4_05

Laparoscopic approach to acute abdomen in gynecology

Gomes-da-Silveira GG, Pontremoli Salcedo M, Cruz Nervo C, El Beitune P
Santa Casa Hospital, Porto Alegre, Brazil

Objective: Evaluate the diagnostic and therapeutic potential of laparoscopic surgery in the acute abdomen condition.

Design: It was a prospective study of therapeutic intervention type (clinical trial). The study was performed on female patients aged 14 to 51, who came to the gynecological emergency department and were diagnosed clinically with acute abdomen. Patients with a more likely diagnostic hypothesis of ectopic pregnancy and acute appendicitis were excluded. Fifteen patients were included in the study from July 2000 to December 2003. All the patients were submitted to exploratory laparoscopy, performed always by the same surgeon. The use of drains and postoperative antimicrobial drugs was indicated according to individual evaluation.

Results: Of the fifteen patients, eleven had tubo-ovarian abscesses measuring between 3 and 12 cm. A patient with diverticulitis presented a retro-uterine abscess due to a ruptured diverticulum in the rectosigmoid transition, and the other three had acute appendicitis., one of them suppurating with pelvic peritonitis. One of the patients with appendicitis also had a cyst in the right ovary measuring 7.9 cm. A condition of diffuse bacterial peritonitis with extensive adhesions blocking access to the pelvis was found in eight patients.

The surgical treatment was always completed by laparoscopy; there were no cases of convertion to laparotomy or immediate re-intervention. The patients were followed for at least three months postoperatively.

Conclusion: The laparoscopic approach proved safe and effective in the diagnostic and treatment of this group of patients. The experience of surgical team with the laparoscopic surgery is essential in approaching acute abdomen, which commonly requires great technical skill.

P4_06

Are solitary and multiple uterine myomas two different diseases? Preliminary results of case control study

Maja Pakiz, MD, Msc, Prof. Igor But, MD, PhD, Assist. Uros Potocnik, PhD

Objectives: To assess whether there are differences between solitary and multiple myomas when compared to healthy controls in epidemiological factors and gen polymorphisms.

Methods: Epidemiological data (age, menarche, parity, BMI, family history, OHC used, smoking) were gathered by means of questionnaires. Distribution of gene polymorphisms for estrogen receptor (ESR1 Z_397 Cint1), aromatase enzyme system (CYP17_7-34C) and interleukin-23 receptor (IL23R_int6G/T) were analyzed by PCR-RFLP method. Three groups were formed according to presence of uterine myomas. Group one included women close to menopause being operated having only one myoma on US and/or histological examination, group two consisted of women having more than three myomas and in third group there were peri- or postmenopausal women having uterus removed with no myomas on histological examination. The groups were compared by Student t-test for numerical and by χ^2-test as well as Fischer exact test for categorical variables.

Results: The mean age of women with solitary and multiple myomas as well as of healthy controls was 50.9±9.6, 44.1±6.0 and 60.7±11.2, respectively. The table presents the differences in epidemiological factors and gene polymorphisms between the groups.

Conclusions: According to our results women with solitary myomas are similar to women having no myomas except in parity. However

	Solitary myomas (56 women)	Multiple myomas (50 women)	Healthy controls (41 women)	Solitary vs. controls (P)	Multiple vs. controls (P)
Menarche (years)	13.6±1.8	**13.0±1.5**	13.9±1.7	0.537	**0.015**
Parity (No.)	1.9±1.0	**1.35±0.9**	2.6±1.2	**0.006**	**≤0.0005**
BMI (kg/m^2)	27.3±4.5	26.4±6.2	27.1±3.6	0.804	0.569
Positive family history (%)	17.9	**40.0**	19.5	0.836	**0.035**
OHC used (%)	60.0	66.7	52.6	0.489	0.186
Smoking (%)	33.3	**57.4**	21.1	0.202	**0.001**
ESR1 (Pvu II) (freq. for CT)—%	51.2	**31.0**	55.9	0.817	**0.037**
CYP17 (freq. for CC)—%	35.5	**12.5**	41.2	0.803	**0.013**
IL23R (freq. for GG)—%	12.6	**38.7**	13.8	0.741	**0.041**

women with multiple myomas differ significantly from healthy controls in genetic predisposition (family history, gene polymorphisms), hormone status (parity, menarche) and in smoking. We can conclude that solitary and multiple myomas may have different etiology and pathogenesis.

P4_07

Transperitoneal migration in the aetiology of ectopic pregnancy and the implications for surgical management: a case report and review of the literature

B Babbel, T Manias, O Amu

Department of Obstetrics and Gynaecology, Royal Oldham Hospital, The Pennine Acute Hospitals NHS Trust, UK

Introduction: The incidence of transperitoneal migration has been documented to occur in up to 50% of pregnancies [1]. However, its implications in the pathogenesis of ectopic pregnancy following proximal tubal occlusion, as a result of previous surgery remains poorly defined.

Case Report: A 23-year-old P0G2 presented to our gynaecological department early in her 1st Trimester one year following right partial salpingectomy for isthmic tubal ectopic pregnancy. Despite significantly falling HCG levels the patient was taken to theatre urgently for a Laparoscopy with the USS finding of free pelvic fluid. During Laparoscopy a right sided ectopic pregnancy was identified in a remaining distal tubal stump and no proximal connection to the uterine cornuum was observed. The vestigial tube with the ectopic was resected with electrodiathermy and removed.

To ascertain the patency of the left tube a Methylen Dye test was performed. The left side showed instant spill, but no connection of the uterus with the right side was revealed and the diagnosis of peritoneal migration of ectopic pregnancy was confirmed. Histological examination confirmed the presence of chorionic villi in a remnant fallopian tube.

Discussion: This is a rare case of ectopic pregnancy caused by peritoneal migration into a remaining distal tubal stump following partial Salpingectomy. In theory it is postulated that conception in a partial remnant of a tube occurs either by migration of a spermatozoa or the fertilized egg through the peritoneal cavity to the controlateral adnexae or via a persistant lumen to the uterine cavity, but literature reports are scarce [2, 3, 4]. We have excluded the possibility of a direct connection to the uterus with Methylen Dye injection. With rising numbers of ectopic pregnancy this very rare occurrence should raise awareness not to disregard the clinical picture of ectopic pregnancy in the ipsilateral tube following previous Salpingectomy and our findings suggest caution with regards to treating ectopic pregnancy by means of partial Salpingectomy.

References:

1. Preventing ectopic pregnancies: how often does transperitoneal transmigration of sperm occur in effecting human pregnancy? Gerard G. Nahum, Harold Stanislaw, Connette McMahona. BJOG, July 2004, Vol. 111, pp. 706–714
2. Zuzarte R, Khong CC. Recurrent ectopic pregnancy following ipsilateral partial salpingectomy. Singapore Med J. 2005; 46:476.
3. Fruscella L, Danti M, Toti R. Extrauterine pregnancy in residual tube stump in a patient already treated with partial salpingectomy for right ampullary pregnancy. Minerva Ginecol. 1994;46:695–7.
4. Li-Ling Choua and Ming-Chao Huang, Recurrent Ectopic Pregnancy After Ipsilateral Segmental Salpingectomy,Taiwanese Journal of Obstetrics and Gynecology,Volume 47, Issue 2, June 2008, Pages 203–20

P4_08

Diagnosis and laparoscopic treatment of a case of steroid cell tumor

E. Cazorla[1], R.M. Díaz[1], M. Marín[1], L. Álvarez[1], K. Anniuk[1], A. Abuomar[2]

Departments of Obstetrics and Gynecology[1] and Pathology[2],Hospital de Torrevieja. Alicante, Spain

Objective: the accuracy of ultrasonography with color Doppler in the diagnosis of ovarian tumors has been well established and perhaps is more sensitive than CT scan. Steroid cell tumors account for only 0.1% of ovarian tumors and the hyperandrogenism manifestations vary among the different types (stromal luteoma, Leydig cell tumor and steroid cell tumors not otherwise specified). We present the diagnosis and treatment of a small testosterone-secreting stromal luteoma.

Materials and method: a 65-year-old woman with previous history of total hysterectomy without oophorectomy, presented with a history of gradual increase in facial and body hair in the last three years. She was controlled by Endocrinologist and was referred to study an ovarian origin of the hyperandrogenism, because of a report of a CT-scan with findings of a 30 mm cyst depending on right ovary. Laboratory tests showed elevated levels of total testosterone (5.05 ng/ml) and androstendione (>1000 µg/dl). Transvaginal ultrasonography and color Doppler findings were a cyst on right ovary 24×18 mm in size without increase

of vascularisation and a solid tumor on left ovary 21 mm in size with increased peripheral vascularisation (RI 0.54). A bilateral laparoscopic oophorectomy was performed. Histological report was: 1) right ovary: serous cystoadenoma; 2) left ovary: stromal luteoma. One month after the surgical intervention, laboratory tests were normalized.
Conclusions: clinical symptoms and ultrasound examination have the highest accuracy in rare ovarian tumors. Laparoscopic approach is the best method to confirm and treat these selected cases.

P4_09

Functional outcome after laparoscopic sacrocolpopexy using posterior promontory fixation
Nikolaos Apostolopoulos, Krystallenia Alexandraki, Anwen Gorry, Adeyemi Coker
Queens Hospital NHS Trust, Romford, UK

Objective: Vaginal vault prolapse may follow hysterectomy and the incidence is said to be anywhere between 0.2% and 43% Laparoscopic sacrocolpopexy utilizes the benefits of minimal access surgery and there is increasing evidence of its benefits from 11 case series involving >1000 patients. One of the limitations of the literature is the non-validated-assessment of the preoperative symptoms and postoperative results, leading to inevitable biases. Our study attempts to address this issue, by evaluating the patients before and after Laparoscopic sacrocolpopexy using Quality of Life questionnaires. Furthermore, all the patients were treated with a single posterior mesh. We present the results of our first 10 patients.
Materials and method: In this prospective study 10 patients with the clinical diagnosis of symptomatic genital-urinary prolapse were treated with Laparoscopic Sacrocolpopexy. Their pre-op assessment involved a detailed urogynaecological history and physical examination to determine the degree of the prolapse, the presence of urinary stress incontinence (using the Bonney's maneuver) and bowel or sexual symptoms. All of them had previously Abdominal or Vaginal Hysterectomy and other pelvic floor repair surgery. All of them had at least more than 2nd grade prolapse according to Baden-Walker system. If the history or the examination findings were suggestive of urine incontinence, urodynamics investigations were arranged in order to plan incontinence surgery. Their symptoms (vaginal-urinary-bowel-sexual) were further assessed by Quality of life questionnaires (e-PAQ). All operations were performed by two senior surgeons.
A polypropylene mesh was placed along the full length of the posterior vaginal wall extending to the vault. The mesh was sutured in place with Ethibond sutures. The cranial aspect of the mesh was secured to the sacral promontory with two 5-mm tacks. The peritoneum was then closed over the sacral promontory and the vault, covering the mesh with 3 sutures vicryl 2/0. All women were seen postoperatively. In their first visit were asked to complete the same quality of life questionnaire. They were further assessed clinically to determine the anatomical results.
Results: The median age: 61 yrs (range: 47–73). Regarding the operation details the median value of operation time was 119.33 (range: 102–196) minutes and the estimated blood loss was 138.89 (range: 50–300) ml. Regarding complications, one of the cases had to be converted to open due to multiply bowel adhesions and one patient has injury of the inferior epigastric artery which was treated laparoscopicaly. One of the cases developed postoperatively urinary stress incontinence and was treated with TVT-O. The median follow-up time was 12 (range: 8–18) weeks when participants asked to answer to the same questionnaires. Considering the operative outcome, there was no difference in the bowel symptoms. However, there was a trend for a better quality of life regarding the urinary symptoms (P=0.058). Furthermore, the sexual function improved significantly amongst the active patients with no reported cases of dyspareunia with better sex overall (P=0.066) and improved vaginal symptoms related to sex (P=0.074). Finally, regarding vaginal symptoms improvement in pain (P=0.017), in prolapsed (P=0.016) and in quality of life (P=0.016) were reported.
Conclusion: Our results suggest that laparoscopic sacrocolpopexy is a safe and effective surgical treatment for post-hysterectomy vault prolapse, which provides excellent vault support. In this small cohort of patients, a single posterior mesh laparoscopic sacrocolpopexy is associated with significant benefits in the short term follow up of the quality of life without any deterioration. Long term follow up is required to establish the duration of the benefits.

P4_10

Laparoscopic creation of neovagina in patients with of Mayer-Rokitansky-Küster-Hauser syndrome. Report of 6 cases
Celia Navéjar, Elena Suarez, Teófilo Guerra, Oriol Puig, Laura Mañalich, Jordi Xercavins
Hospital Vall d´Hebron, Barcelona, Spain

Objective: Vaginal agenesia is an uncommon Müllerian malformation, the most common syndrome is the Mayer-Rokitansky-Küster-Hauser. Since 1965 Vecchietti reported the creation of an artificial vagina in this syndrome, in 1994 Fedele published a laparoscopic neovagina creation modifying the Vecchietti surgery. Present the experience of this center in the creation of neovagina in patients with Mayer-Rokitansky-Küster-Hauser syndrome.
Materials and methods: 6 patients evaluated for primary amenorrhea and normal primary sexual characters who showed vaginal agenesia at physical examination. Ultrasonography, MRI, hormonal function, and karyotype were done in all patients. The surgical technique was Vecchietti laparoscopic operation, 4 cases with Karl Storz and 2 with Neomedics devices. The function was assessed with the Rosen's Female Sexual Function Index questionnaire.
Results: The average of hospitalization was 10 days, at the discharge the average of vaginal length was 8 cm. The patients were evaluated monthly, 2 and 3 months after the use of dilators, the average of the vaginal lenght were 8 cm. Mean follow-up was 15 months. According to the questionnaire of Female Sexual Function Rosen in the 6 cases the results were good or satisfactory.
Conclusion: The creation of neovagina with the Vecchietti laparoscopic technique is an option with good anatomical and functional results.

P4_11

Mesh shrinking in patient with anterior vaginal wall repair
K. Svabik, A. Martan, J. Masata
Department of Obstetrician and Gynecology, Charles University and General University Hospital, Prague, Czech Republic

Objective: Polypropylen meshes are frequently used in reconstructive surgery. The shrinking of the polypropylene mesh is described from 30% up to 50% in some animal studies. There are lacking clinical data.

Methods: The assessment consisted of 3D/4D ultrasound of the anterior vaginal wall thickness in patient with symptomatic anterior vaginal wall prolapse POPQ grade≥II included in randomized interventional study, comparing traditional anterior repair (group–AR; n=12), anterior repair with free insertion of self-cut mesh (Gynemesh) (Group–Mesh; n=17) or with a large–Prolift mesh, (Group–Prolift; n=18). During the surgery we measured the length of the mesh (Original length). Fourth day after surgery we performed early ultrasound examination end measured the mesh length (Early US length). The late ultrasound examination was performed 3–5 month. (Late US length). Mesh shortening in percent was calculate as a proportion of the different length measurements

Results: We analysed first 47 patients randomised in three groups, mean age 59,4 SD 9,6; mean BMI 27,3 SD 3,6; parity 2,2, with no differences between groups. In group AR there is no change in vaginal wall thickness before and after surgery (+0,7 mm p-value 0,335–NS). In groups with meshes there is increase in vaginal wall thickness by 1,3 mm (p-value 0,0001).

Mesh Shortening in %

		Group Prolift N	Group Mesh N	Group Prolift median	Group Mesh median	Kp-value
Late US length /Original length		17	18	45%	25%	0,001
Late US length /Early US length	Shrinking	17	18	16%	20%	0,4180
Early US length/Original length	Folding	17	18	36%	7%	0,0009

Conclusions: We quantified with ultrasound imaging shrinking of the mesh and we could differentiate mesh shrinking from folding caused by the surgery. The Gynemesh shrinks one fifths of its length. The folding has a major impact on the final length of the large meshes (36%) and it seems to be irreversible. It might raise the question about the appropriate size of the mesh. The significant increase in vaginal wall thickness after vaginal surgery is apparently caused by the mesh and not by the surgery.

Acknowledgement: This work was supported by the Grant Agency of the Ministry of Health of the Czech Republic, grant NR/9216-3

P4_12

Prognostic value of microvessels densities in patients with pelvic adhesions

E.D. Dubiskaya, E.G. Khilkevich, A.S. Gasparov, D.S. Titov
Peoples' Friendship University of Russia, Russian Federation

Objective: The aim of the study was to assess microvessel density (MVD) and diameter of blood vessels (<2 μm or >2 μm) as a marker for pelvic adhesions reformation after laparoscopic surgery.

Materials and methods: Twenty five patients with endometriosis and pelvic adhesions of 3–4 stage (AFS-classification) were included in the study. The diameter of blood vessels was measured using transmission electron microscopy. We evaluated the vessels (>2 μm)/"shoots" (<2 μm) ratio. In four months "second-look" laparoscopy was performed for pelvic adhesion reformation evaluation.

Results: The MVD was significantly higher in patients in which pelvic adhesion reformation was registered. It exceeded the levels of MVD in patients without pelvic adhesion reformation up to 3 times. So, two groups were formed. The first consisted of the patients without pelvic adhesion reformation—"control group", the second—with high MVD and, so called "the group of the high risk of pelvic adhesion reformation". In patients of the controls the ratio was 7,4±0,7. This correlation coefficient increased significantly in patients with "high risk" due to the reduction of the "shoots" number.

Conclusion: MVD and microvessels/"shoots" ratio could be useful significant prognostic criteria for pelvic adhesion reformation and could be helpful for indication evaluation for "second look" laparoscopy.

P4_13

Effect of four different oral contraceptives on androgenic markers and SHBG in PCOS women

M.C. Musacchio, V. De Leo, G. Morgante, R. Cazzavacca, A. Di Sabatino, V. Scolaro, F. Petraglia
Section of Obstetrics and Gynecology, Department of Pediatrics, Obstetrics and Reproductive Medicine, University of Siena, Siena, Italy

Objective: POLYCYSTIC OVARY SYNDROME (PCOS) is the most common endocrinopathy in women and the most common cause of anovulatory infertility, affecting 5–10% of the population. Hyperandrogenemia is a key feature of the syndrome; in hyperandrogenic women, suppression of ovarian androgen secretion induced byoestrogen–progestogen is widely used and effective in lowering free androgens. The purpose of this randomized study was to compare in PCOS women the effect of four OC that contain the same amount (30 mg) of ethinyl estradiol (EE) but different progestins (DRSP, CMA, DSG, GSD) on biochemical androgenic profiles and SHBG.

Materials and methods: 40 women between 16 years and 35 years of age with polycystic ovarian syndrome and without contraindications for the use of OCs were included in this randomised double-blind study. A baseline blood sample (6°–8°day of menstrual cycle) was drawn and serum was separated and frozen for the later determination of biochemical markers of androgen production (A, DHEAS, total T, free T, SHBG). After the control cycle, the volunteers were randomly assigned to one of the four different treatment groups: 10 subjects received 3 mg of drospirenone/30 mg of EE (Yasmin, Bayer Shering), 10 received 2 mg of clormadinone/30 mg of EE (Belara, Grunenthal), 10 received 75 mcg of gestodene/30 mg of EE (Minulet, Wyeth lederle) and 10 received 150 mcg of desogestrel/30 mg of EE (Practil

21, organon italia). During therapy, blood was collected on days 6–8° of the control cycle (without medication) and on days 6–8° of the third and sixth cycle of treatment.

Results: The four treatment groups were comparable in terms of baseline data for age and body mass index, which did not change significantly during treatment. In all four treatment groups, the mean levels of free testosterone, testosterone and androstenedione were profoundly reduced by 40–60% throughout the study. The suppressive effect of 30EE/DRSP and 30EE/CMA was more pronounced than that of EE/DSG and 30EE/GSD ($p<0.05$). In all four treatment groups the mean serum level of DHEAS was significantly reduced by 20–50%. There were, however, no significant inter-group differences concerning DHEAS. The four preparations caused a progressive rise in the serum levels of SHBG. During the treatment period, the degree and time course of the effects differed among the groups, showing much larger increases with the DRSP and CMA-containing OCs than with EE/DSG and EE/GSD.

Conclusions: The present results demonstrate that the four OCs with differing composition, and in particular the DRSP and CMA-containing Ocs, exert a marked reduction of the serum concentration of free testosterone, androstendione and DHEAS, which is brought about by a suppression of total testosterone an androgen precursors and an increase in SHBG.

P4_14

Laparoscopic sacrocolporectopexy as treatment for posterior and mid-compartment prolapse

E.J. Roos, Leeuwen, M.R. Wiezer, B. van Ramshorst, G.C.M. Graziosi

St Antonius Hospital, Koekoekslaan 3, 3435 CM Nieuwegein, The Netherlands

Objective: To evaluate the results of laparoscopic sacrocolporectopexy in patients with pelvic organ prolapse or bowel dysfunction. Pelvic organ prolapse causes a variety of symptoms that impair a patient's quality of life. These symptoms are incomplete evacuation, rectal discomfort, anal incontinence, pelvic heaviness, vaginal bulging and lower abdominal pain. A laparoscopic sacrocolporectopexy uses a mesh fixation of the mid-compartment vagina and the posterior-compartment rectum to the sacrum to correct both anatomical deformity and pelvic floor symptoms.

Materials and methods: In St Antonius Hospital the charts were collected retrospectively of consecutive patients, who underwent laparoscopic sacrocolporectopexy from November 1999 to February 2007. The patients were reviewed six weeks after surgery. An extra review was done at mean of 34.8 (range: 7–73) months after surgery. At this follow up a standardized pelvic floor questionnaire of the Dutch Society of Obstetrics and Gynecology was completed, including women's satisfaction.

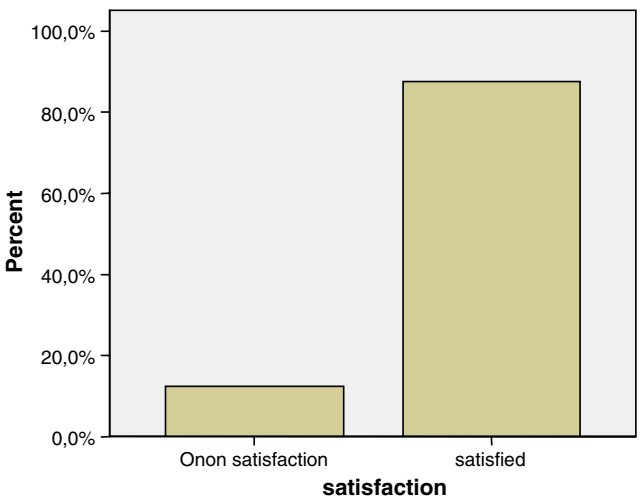
Results: A total of 24 patients were included. The mean age was 61.4 years (range: 39–85 years). The mean period of follow up was 10 months (range: 5 days to 59 months). All patients had a prolapse of the posterior compartment; either twelve patients (44.4%) had a prolapse of the posterior compartment and vaginal vault prolapse (mid-compartment). The mean operating time was 120 minutes (range: 65–209) and estimated blood loss of 72 ml (range: 10–600 ml). In two patients the laparoscopy was converted to an open procedure, one due to adhesions and one due to a rectum perforation.

Six weeks after surgery the anatomic results were good. In the follow period no recurrences occurred. The functional results of the laparoscopic sacrocolporectopexy had significant effect on prolapse symptoms in all women (n=12) with vaginal vault prolapse. However there was no significant improvement in bowel dysfunction (n=17, p 0.51). De novo urine voiding problems was present in 62.5% of women (n=15). The majority of women (87%) were moderate to completely satisfied with the result of laparoscopic sacrocolporectopexy.

Conclusions: In patients with concurrent posterior- and mid compartment prolapse laparoscopic sacrocolporectopexy is an effective and safe operation to correct pelvic organ prolapse. Especially for vaginal vault prolapse a high satisfaction rate is observed. However after posterior compartment correction, bowel symptoms are not improved in a majority of women and become worse in some cases. Anatomical correction is no guarantee for functional improvement in these women. Furthermore de novo urine voiding problems are evident and should be discussed prior to operation.

References:

1. Sagar P.M., Thekkinkattil D.K., Heath R.M., Woodfield J., Gonsalves S., Landon C.R. Feasibility and Functional Outcome of Laparoscopic Sacrocolporectopexy for combined Vaginal and Rectal Prolapse. Diseases of the Colon & Rectum 2008; 51:1414–1420.
2. Lee H.J., Lee Y.S., Koo T.B., Cho Y.L., Park I.S. Laparoscopic Management of Uterine Prolapse with Cystocele and Rectocele Using "Gynemesh PS". Journal of Laparoendoscopic & Advanced Surgical Techniques 2008; 18(1): 93–98.
3. Slawik S., Soulsby R., Carter H., Payne H., Dixon A.R. Laparoscopic ventral rectopexy, posterior colporrhaphy and vaginal sacrocolpopexy for the treatment of recto-genital prolapse and mechanical outlet obstruction. Colorectal Disease 2007; 10: 138–143.



P4_15

Is it worth to manage surgically simple adnexal cysts found in postmenopausal women?

A. Gorostiaga, I. Gorostiaga, I. Brouard
Department of Obstetrics and Gynaecology, Hospital San Francisco Javier, Spain

Objective: To determine the side-effects (complications) associated to surgical management of ultrasonographically detected non-complex adnexal cysts in an ovarian cancer screening program in postmenopausal women.

Materials and methods: Prospective analysis of 3378 postmenopausal women (at least 1 year since last period) who underwent transvaginal ultrasound (Phillips HDI 4000) as part of annual routine gynaecological exploration at our institution between January 2004 and December 2007. All patients to whom a non-complex adnexal cyst was diagnosed were offered surgical treatment or expectant management with serial transvaginal ultrasound at 3–6 month intervals. All the surgeries were performed by laparoscopy (oophorectomy or anexectomy) using an standarized 4 trocars acces (one 12 mm umbilical, one 12 mm suprapubic and two 5 mm suprailiacs) and an endobag to remove the specimen. Evolution and complications associated to the surgery were obtained.

Results: 209 cysts in 207 women were diagnosed. 44 underwent laparoscopy, excising finally 49 cysts to diagnose 1 serous carcinoma and 1 serous "border-line" (prevalence:0,059%). Surgical strategy was as described except for one case in which, due to the big size of the cyst, an ampliation of the 12 mm port was needed and four cases in which the trocar for the optic was introduced through a left subcostal access due to previous abdominal surgery. Complications were as follows: one case of thermical ileal injury that needed relaparotomy and mechanical respiratory support due to septic shock, one case of fever managed conservatively due to a pelvic hematoma in a case of complex residual endometrioma, one case of hematoma in a suprailiac access, resolved spontaneously and two cases of urinary lower tract infection treated with antibiotic monodosis. The mean time till discharge was 1.9 days (0,5–16) and the mean surgical time was 18 min (7–45 min). Results are shown in table I.

Conclusions: Though the results of our study show that conservative management in cases of non-complex adnexal cysts in the postmenopause is very safe option (risk of "hidden" ovarian cancer <1%), we also want to remark that, in terms of complications, the surgical management of patients screened for ovarian cancer who choose this option is also a very safe election when practiced by laparoscopy. At our institution, all the cases were managed via laparoscopy (except for the serous carcinoma which, in a second time, underwent laparotomy to complete surgical treatment) with a very reduced stay at the hospital and with just one only case of severe complication in a patient with two previous abdominal surgerys. Though we know that laparoscopy is not exempt from risks (Canis, 2000), a very safe access can be offered when counseling a patient screened to surgical management of her adnexal mass.

Table I

	Media
Age	57.3
CA-125	10.1
Size (cm)	5.7
Days till discharge	1,9
Surgical time	18 min
Severe complications	1
Slight complications	4

P4_16

Laparoscopic cervical cerclage using mersilene tape-3 cases report

Enlan Xia, Jie Zheng Xiaowu Huang, Dan YU, Yuhuan Liu, Ning Ma, Yunfei Li, Dongmei Song
100038 Hysteroscopic Center, Fuxing Hospital, Capital Medical University, Beijing, China

Objective: To evaluate the feasibility, safety and efficacy of laparoscopic cervical cerclage using Mersilene tape for cervical incontinent.

Materials and Methods: 3 patients with a history of second trimester miscarriage after failed vaginal cerclage. A laparoscopic cervical cerclage was placed before pregnancy under general anesthesia. The bladder flap of peritoneum was been dissected horizontally. Both side uterine artery was revealed and isolated from the parametrium with monopolar diathermy. Curved laparoscopic forceps were used to create a tunnel in the avascular space close to uterus at the level of the cervicourerine junction. A 5-mm Mersilene tape was placed into the right side tunnel from anterior to posterior broad ligament and then placed into the left side tunnel from posterior to anterior broad ligament round the posterior cervicourerine junction. The tape was tied anteriorly with double throws of an intracorporeal knot. The bladder flap of peritoneum was closed. No intraoperative or postoperative complications were experienced.

Results: One patient subsequently became pregnant and delivered a live baby by cesarean section in the third trimester.

Conclusions: Laparoscopic cervical cerclage using Mersilene tape for cervical incontinent is mini-invasive, effectiveness and safety.

P4_17

Transvaginal hydrolaparoscopic correction of subfertility caused by adhesive procces of ovario-fimbrial complex

Ivane Mgaloblishvili; Manana Mgaloblishvili; Ketevan Tabutsadze; Natalia Beria
Centre for Reproductive Medicine and Infertility, Tbilisi, Georgia

Objective: Advanced technique of hydrolaparoscopy allows evaluating fimbrial section of uterine tube, which is responsible for the retrieval and capture of oocyte ejected by follicle in the chaotic space of pelvic cavity. Removal of intrafimbrial adhesions that are detected

by hydrolaparoscopy increases fertility as it improves migration of oocyte within ovario-fimbrial complex.
Design: The aim of the study was to determine the role of intrafimbrial adhesions in development of sub fertility in women of reproductive age and also to evaluate effectiveness of transvaginal hydrolaparoscopic correction of this abnormality
Materials and Methods: During transvaginal hydropelvioscopy we used standard Fertiloscopic set (KARL STORZ) together with Bipolar Vaporization Electrodes (GYNECARE VERSAPOINT, Johnson & Johnson). Out of video files of 4572 fertiloscopies performed due to primary and secondary infertility of various duration, we chose 418 patients (aged 22–28), who suffered 1, 3–5, 9 years of infertility. All selected patients had normal ovulatory cycles without apparent pathology of uterine cervix, uterine cavity, uterine tube orifices, fimbrio-ampullar joint or ampullar portions. In the accessible areas of visualization endometriosis was not present .Criteria for selection was successful surgical correction of intrafimbrial adhesions during fertiloscopy (dissection using scissors, haemostatic coagulation- in case of necessity). Management was considered to be successful if after the performed pelvioscopic correction, within 1 year (8–10 ovulatory cycles), spontaneous or monitoring controlled pregnancy occurred.
Results: Out of 418 infertile women which underwent fertiloscopic fimbriolysis with subsequent postoperative ovulation monitoring (monitoring was performed in 399 patients), 351 women conceived (84%). In 16 of pregnant women monitoring was not performed due to the organizational problems. The total amount of analyzed women (418) selected specifically without other obvious abnormalities, made up 9,14% of entire 4572 fertiloscopies performed within 5,5 year, although 317 sub fertile families were repeatedly examined previously using standard methods (32 underwent laparoscopy), the reason of infertility before transvaginal hydropelvioscopy was not determined.
Conclusions: Randomized retrospective analyses of performed transvaginal hydrolaparoscopic correction of the ovario-fimbrial transmission defects that were caused by the intrafimbrial adhesions, showed important role of this abnormality in the development of sub fertility and capability of their correction on an outpatient basis.

P4_18

Uterine tumor resembling ovarian sex cord tumor (UTROSCT) presenting as abnormal uterine
Natasha Waters, Andrew Kent
MATTU, UK

Our patient is 26-year-old nulliparous woman with a history of heavy regular cycles and intermenstrual bleeding. She was treated with an oral contraceptive pill for two years prior to a gynaecological referral. When presented to gynaecology clinic, the pelvic ultrasound showed thick endometrium of 1.5 cm. Unfortunately as the patient suffered from a severe form of latex allergy, a flexible hysteroscopy was not possible as our hysteroscopy suite is not equipped with adequate ventilation to ensure that the environment is completely latex free. Over the next two years the bleeding got considerably heavier. During one particular episode of flooding necessitating blood transfusion. The decision to perform hysteroscopy under general anaesthetic was performed.
During hysteroscopy, a large grape like broad based tumour on the uterine fundus was found. It was resected with loop diathermy. The pathology showed a tumour to have a pattern of nests, cords and trabeculae resembling granulosa or Sertoli cell tumour of the ovary without presence of endometrial stroma. It was thought to be a Uterine Tumor Resembling Ovarian Sex Cord Tumor (UTROSCT). Contrary to endometrial stromal tumors with sex cord-like elements (ESTSCLE) it is usually characterized by benign behaviour, non—invasive pattern and absence of vascular invasion. However, due to resection margins being incomplete, a second resection was performed. Mirena® (levonorgestrel containing intrauterine device) was inserted to control bleeding at the same time. The second specimen had same favourable histological features as the first one and most importantly, clear margins.
The long-term clinical behaviour of UTROSCT remains to be established. Currently as our patient is of childbearing age and requires fertility preservation, the follow up consists of flexible hysteroscopy and biopsy if required at six monthly intervals and can be easily performed in the outpatient setting.

P4_19

Patients' preferences in mode of surgery of an adnexal mass
Peggy Geomini, Gérard L. Bremer Roy F.P.M. Kruitwagen, Brent C. Opmeer, Ben Willem J. Mol
Máxima Medical Centre, The Netherlands

Objective: We assessed the preferences of women with an adnexal mass for the mode of surgery.
Methods: A structured interview was designed, in which women scheduled for surgery for an adnexal mass were confronted with fictive scenarios of the different approaches. Women were asked at what probability of a false negative test result of frozen section diagnosis they would prefer frozen section diagnosis over primary radical surgery. Furthermore, the women were asked at what probability of ovarian malignancy they would prefer laparoscopy over laparotomy.
Results: We interviewed 43 women. When the probability of frozen section diagnosis being false negative was set at 90%, 97% of the women preferred primary radical surgery. The mean threshold at which women switched their preference from primary radical surgery to frozen section diagnosis was at a risk of 49% on a false negative test result of frozen section diagnosis. In the choice between laparoscopy over laparotomy, the mean threshold at which the women switched their preference from laparoscopy to laparotomy was at a risk of 55% on ovarian malignancy.
Conclusion: Women scheduled for surgery of an adnexal mass at low risk of ovarian malignancy, prefer frozen section diagnosis over primary radical surgery and prefer laparoscopy over laparotomy.

P4_20

Organs prolapse: first data about the method and early post operative follow-up
G. Mecejus, E. Bauzyte, O. Tamasauskas
Vilnius City University Hospital, Vilnius University Clinic of Obstetrics and Gynecology, Lithuania

Objective: Aim of our study was to evaluate the procedure and the early post operative follow-up after the operative treatment of pelvic organs prolapse (POP) vaginally using the mesh and compare our data with the literature.

Study design and methods: The retrospective study was held from April 2007 to March 2008 (12 months). All patients had the III–IV degree pelvic organs prolapse (POP) according to the POP-Q qualification. POP was treated using polypropylene mesh vaginally in all cases. Mesh was prepared by the surgeon just before the operation from the large piece of mesh according to TYCO and our original methodology. Patients' demographic data, operation, early post operative course and complications were analyzed and compared with the literature data.
Results: Sixty patients were included into the study. Patients' mean age was 65,7±10,7 years (36–82 years). Operation mean time was 67,9±23,8 minutes (25–155 minutes), hospitalization lasted—3,4± 1,7 days (1–9 days). Complications during the operation and in the early postoperative period occurred in fifteen patients (25%). The main problems after the operation were fever over 38ºC (7 patients—12%) and dysuria (8 patients—13%). For all patients fever lasted up to 24 hours. Dysuria was treated by urine bladder catheterization. Catheterization time was 2,9±1,6 days (1–5 days). According to the literature, fever rates varied from 1,8% to 8,3%, dysuria rate varied from 2% up to 15,8%. Also, one case of bleeding during the procedure, two cases of hematoma and two cases of urine bladder perforation were observed. Three patients suffered several problems. There were no severe complications during the operation and in the early postoperative period. According to the data general complications rate in early post operative period varies from 5 up to 25%.
Conclusions: Operative treatment of POP using the mesh performed vaginally is a safe operation with only a few soft early post operative problems. Our data is similar to the literature, which means that operative technique is acceptable. We need to analyze patients' data in a late follow-up in order to evaluate the long term effectiveness of the operation.

P4_21

Transcervical and laparoscopic myoma resection in one time surgery: cases report

S. Coutinho, F. Faustino, O. Lavado, J. Reis, S. Valadares
Department of Obstetrics and Gynecology, Hospital da Luz, Lisbon, Portugal

Introduction: The surgical management of fibroids has changed from laparotomy to minimally invasive surgery, either by laparoscopy or hysteroscopy. Myomectomy by endoscopic surgery has significantly reduced the morbidity of the procedure, and their indication depends on the symptoms, number—size—location of the myomas and the wish to preserve fertility. We believe that there are advantages to combine hysteroscopy to laparoscopy for treatment when submucous and intramural or subserous type of myomas are present. In selected cases is possible to do transcervical and laparoscopic myomectomies in one time surgery.
Methods: To report four cases submitted to resection of myomas by hysteroscopy (ressectoscope with bipolar loop) and laparoscopy in the same operating time, over a two-year period, by the same surgeon. Retrospective assessment of clinical data, peri-operative results and follow-up are presented.
Results: Patients with submucous fibroids between 11 and 40 mm and subserous or intramural tumors between 50 and 70 mm, were operated (total of 12 myomas removed). 3 of 4 cases required suture and morcellation by laparoscopy. The mean total operating time was 154 minutes (min 120, max 180), and the mean drop of haemoblobin was 2.1 g/dl. Exception for one cervical laceration no other complication occurred, namely transfusion. The mean hospitalization time was 30 hours (min 24, max 48). Only one case with incomplete removal of a submucous myoma, without indication for reintervention.
Discussion: In our experience there were few cases that we found eligible to combine hysteroscopy and laparoscopy for the removal of myomas, in one time surgery. It seems safe and feasible to perform two different endoscopic surgeries in the same organ, in one operating time.

P4_22

The tactical aspects of observation of obstetric and gynecological contingent with varicose disease of lower limbs

V.L. Manvelyan
Medical Center "Shengavit", Armenia

Background: The aim of study is to evaluate the results of prophylaxis and treatment of varicose disease of lower limbs of obstetric and gynecological patients.
Material and Methodology: We observed 78 obstetric-gynecologic patients with varicose disease (CEAP 2-4) of lower limbs. Simultaneously conducted obstetric-gynecologic and phlebologic operations (crossectomy or combined traditional and endoscopic transillumination phlebectomy) were made on 22 patients. The dates of conservative methods (low molecular weight heparin and compression therapy) of prophylaxis of thrombotic and thromboembolic complications on obstetric-gynecologic patients with varicose disease were estimated.
Results: Expounded in the article are our results of single-stage operations of obstetric-gynecologic and phlebologic profile with combined pathology. The phlebologic operations did not lead to extending of the total duration of surgical intervention. The postoperative period was without complications. Tromboembolism of pulmonar artery was not recorded in any of the cases. We observed 44 pregnant women with varicose disease, where no phlebosurgery was performed. In short antenatal period 2 cases of acute thrombotic process of great saphenous vein occurred.
Conclusion: Clinically completed observation of obstetric-gynecologic patients includes exposure of varicose disease of lower limbs as coexisting disease and in case of presence of the latter the determination of adequacy of conservative and surgical methods of prophylaxis of thrombotic and thromboembolic complications. The simultaneous conducting of obstetric-gynecologic and phlebologic operations on the women with combined pathology is a pathogenetically based surgical tactics.

Hysterectomy and related Techniques

P5_01

Laparoscopic posthysterectomy vaginal vault excision for chronic pelvic pain and dyspsareunia

Ashwini Trehan, Fawzia Sanaullah
Dewsbury and District Hospital, UK

Objectives: To evaluate the outcome of post-hysterectomy laparoscopic vaginal vault excision and its long term effects on chronic pelvic pain, dyspareunia, quality of life and patient satisfaction.
Materials and methods: This is a retrospective cohort study incorporating case note review and a postal questionnaire. It describes

22 consecutive patients who had laparoscopic vaginal vault excision for post hysterectomy dyspareunia and chronic pelvic pain. At laparoscopy, full thickness vaginal vault was excised along with scar tissue or any cyst. The vaginal cuff was closed laparoscopically. The patients were sent a validated questionnaire to assess their pain scores and satisfaction with the surgery. The mean interval from vaginal vault excision and to questionnaire distribution was 1.8 years. The statistical analysis was performed with SPSS 15.
Results: The mean age of the women was 40 years. All women had vaginal vault tenderness on examination. The only intra-operative complication was one puncture injury of the bladder which was produced by Verres needle during manipulation. A single or a combination of additional procedures was performed at the same time. The patient satisfaction questionnaires were received from 16 (72.7%) women. Of the 16 (72.7%) respondents, 13 (81.25%) confirmed improvement in dyspareunia. The mean pain scores decreased and quality of life and general health improved significantly after vaginal vault excision (p=<.05, t test).
Conclusion: Laparoscopic vaginal apex excision is a safe and effective management option after carefully excluding other causes of deep dyspareunia and chronic pelvic pain. It also provides an opportunity to detect and surgically excise previously undiagnosed endometriosis and other pathology.

P5_02

Ten-years experience with laparoscopic assisted vaginal hysterectomy

Daniel A. Beyer, Amadeus Hornemann, Cornelia Banz, Katharina Kelling, Feriel Amari, Klaus Diedrich, Andreas Kavallaris
Department of Obstetrics and Gynaecology, University of Schleswig-Holstein, Campus Luebeck, Luebeck, Germany

Background: The purpose of this study was to evaluate the intraoperative and postoperative complication in patients undergoing LAVH for benign gynaecologic diseases.
Method: We retrospectively evaluated the charts of 1255 women who underwent hysterectomy between 1998 and 2008 for various benign pathologic conditions. 856 Patients underwent LAVH with transsection of the uterine vessels (LAVH type II) and 399 underwent LAVH without transsection of the uterine vessels (LAVH type I).
Results: The Mean age was 47 years (range, 28–91 years). Median operative time was similar for both techniques: LAVH type I 136 min or with BSO 128 min vs LAVH type II 126 min or with BSO 131 min. The median operative time in both groups was 131 min and with BSO 129.5 min the median BMI was similar in both groups (26.6). Major complications were 11 (0.87%) bladder injuries, 2 (0.15%) ureter injuries, 2 (0.15%) bowel injuries, 2 (0.15%) major vascular injuries, cases needed readmission in operations-room were: 2 (0.15%) cases of massive bleeding from the vaginal cuff, 4 (0.31%) cases of vaginal cuff dehiscent, 6 (0.47%) cases of intraabdominal bleeding, 3 (0.23%) cases of postoperative ileus, 2 (0.15%) vaginal cuff haematoma and 2 (0.15%) pelvic abscesses. Intraoperativ laparoconversion was in 5 (0.39%) cases necessary. Our overall major complication rate was 2.78%. The median uterus weight was 178 g (range 96 g–1300 g), 477 (38%) patients were having an uterus weight of more than 200 g and 95 (7.5%) of them the uterus weight was more than 500 g.
Conclusion: This retrospective study shows that LAVH is a safe surgical procedure and can be performed in short operative time and is also possible and safe in patients with uterus weight of more than 200 g so long as the surgeon has adequate training in the laparoscopic vaginal technique.
key words: LAVH, transsection of uterine vessels, complications

P5_03

Total laparoscopic hysterectomy in benign uterine conditions—our experience

A. Malinowski, G. Maciolek-Blewniewska, J. Cieslak, M. Wojciechowski, J. Molas
Department of Surgical and Endoscopic Gynecology, Polish Mother"s Memorial Hospital—Research Institute, Poland

Aim of the study: The application of minimally invasive surgical techniques in gynecology is constantly increasing. In many centers total laparoscopic hysterectomy (TLH) has become a standard and is widely performed in thoroughly selected patients. The aim of the study is to present the analysis of our experience with this technique.
Materials and methods: Between January 2006 and January 2009 76 total laparoscopic hysterectomies were performed in benign pathology of the uterus. The indications were: uterine fibroids (41 patients—53,9%), adenomiosis (10 patients—13,2%), dysfunctional uterine bleeding (9 patients—11,8%), complex endometrial hyperplasia (7 patients—9,2%), ovarian cysts (9 patients—11,8%). The analysed parameters were: mean operating time, volume of the uterus, perioperative and postoperative complications at one, three and six months after the surgery.
Results: The mean operating time was 68 minutes (58–135 mins.), the average uterine volume was 108,24 cm^3 (25,3–440,9 cm^3). The average postoperative hospital stay was 2,9 days. The mean Hb drop was 1,29 g/dl. The complications were rare. One patient was administered antibiotics due to postoperative fever. In 2 patients we reported a thermal burn of the ureters.
Conclusions: Total laparoscopic hysterectomy seems a safe and effective, minimally invasive technique of hysterectomy in benign pathology of the uterus.

P5_04

A multicentered series of over 1000 laparoscopic subtotal hysterectomies in the UK and Greece: the new approach to hysterectomy

Stefanos Chandakas, Nick Hill, John Erian
Princess Royal University Hospital, London,UK and Iaso Hospital, Athens, Greece

Introduction: Minimally invasive surgery has influenced the techniques used in gynaecology, with an overall minimisation of complications and increased patient satisfaction.
Study objective: To demonstrate the safety, feasibility of laparoscopic subtotal hysterectomies in a day-care setting
Methods and procedures: Retrospective, descriptive, non randomized study , in the settings of Princess Royal University Hospital, London, UK and Iaso Hospital, Athens Greece. For the patients who underwent a laparoscopic subtotal hysterectomy in the last 60 months, data were collected from medical records on how the intervention was performed, followed for 18 months. 1008 subtotal hysterectomies were performed by two surgeons.

Indications included 21.6% cases for endometriosis, 68.2% for menorrhagia, 11.2% for endometrial pathology.

Results: Duration of operation and of hospital stay, safety (morbidity and mortality), and patient satisfaction were assessed Estimated blood loss was 75 ml (range 20–2300 ml) Intraoperative complications: 0.4% had significant complications. 0% vascular injuries and 0% nerve or ureter injuries.2.2% had cyclic bleeding. Early postoperative morbidity included 0.2% deep vein thrombosis, 0% pulmonary embolism, 1.1% bladder infection and dysfunction.

The overall complication rate was 1.8%. 3 of them required drainage for intra-abdominal abscess Hospital stay of these 1008 patients, 91% were discharged to home the same day with an average length of stay for these patients of 9 hours.

Conclusions: Laparoscopic subtotal hysterectomy can be safely performed as a day-care procedure.

P5_05

Hysterectomy and women satisfaction: laparoscopic supracervical hysterectomy versus laproscopic assisted vaginal hysterectomy

N. Badzakov, N. Pancevski, B. Sardzovski, E. Matevska, N. Shikov, Dz. Jashar, K. Kubelka

Special Hospital for Ob/Gyn.,'Mala Bogorodica-Sistina', Skopje, Macedonia

Objective: To compare laparoscopic supracervical hysterectomy (LSH) with laparoscopic-assisted vaginal hysterectomy (LAVH) in terms of outcomes determined on bladder, bowel and sexual function.

Background: The impact of different surgical procedures on women's satisfaction after hysterectomy is a topical issue. The development of laparoscopic approaches to hysterectomy over the last decade was perhaps the most important stimulus to the renewed interest in this approach. The short-term advantages of the laparoscopic procedure to hysterectomy have now been well documented and include less operative pain, shorter convalescent time, quicker return to full activity and more rapid improvement in short-term quality of life measures. It was argued that these benefits may be even more apparent with laparoscopic supracervical hysterectomy. Improvements in technology including improved mechanical morcellators, the use of energy for blood vessels sealing and speedy amputation of the cervix has resulted in a reduction of the blood lost and operating time. Gynecologists have demonstrated a trend to return to supracervical hysterectomy to protect the pelvic floor and decrease the risk for urinary incontinence. It is uncertain whether LSH results better bladder, bowel or sexual function than LAVH.

Methods: Patients, who referred to our private hospital for obstetrics and gynecology, need hysterectomy for benign indication. Exclusion criteria were: symptomatic uterine prolapse and bladder disfunction, genital malignancy, abnormal cervical smears. Each operation was carried out by experienced surgeon, LAVH were performed in the usual manner, introduced by Reich, 1989, and LSH followed procedure from Lyons, 1995. Urinary, bowel and sexual function was evaluated before surgery and 6 and 12 months afterward. Urinary function was determined with the Urethral Retro-Resistance Pressure Measurement (URP), used *Gynecare Monitorr system,* as well as the women's response to a subjective standardized questionnaire. Pelvic floor was assessed by perineal ultrasound (PUS). Bowel and sexual function were evaluated on the basis of response to validated questionnaires. Data were analyzed with the use of SPSS software.

Results: In the study period, 67 patients were enrolled. 13 were treated with LSH, 54 patients with LAVH. The two treatment groups were similar in age, weight, parity, menstrual status and indication for hysterectomy. The preoperative and postoperative rates of urinary tract infection, frequency, stress incontinence, urgency, urge incontinence and incomplete bladder emptying did not differ significantly between the two groups. The mean URP (three measurements) was 75.6 cm H2O preoperatively versus 73.2 cm H20 postoperatively, (p-0.897). No adverse events related to URP measurement were observed. Movement of pelvic floor investigated by PUS did not differ significantly in patients treated with LSH or LAVH. The rates of constipation, hard stools, urgency, straining, use laxatives and incontinence of flatus were similar in the two treatment groups after surgery. The frequency, desire and initiation of intercourse, vaginal lubrication, did not differ significantly between the two groups before of 6 and 12 months afterward.

Conclusions: In this prospective study, urinary, bowel and sexual function at one year was similar in the group women who had undergone LAVH and in those who had undergone LSH. Neither procedure had apparent adverse effect on the functions. Although it seems biologically plausible that the disruption of local innervations and anatomical relationship caused by hysterectomy might lead to organ dysfunction, our findings, as well as the consistently high satisfaction rates reported in other studies in association with simple hysterectomy, suggest that substantial pelvic organ dysfunction is uncommon after total or subtotal hysterectomy. The evidence currently suggests that supracervical hysterectomy may be associated with less preoperative problems and a quicker return to normal activities particularly after laparoscopic procedures. There remain many unanswered questions regarding the optimum method of performing hysterectomy, but recent data dispelled some myths and clarified the indications for the different approaches.

P5_06

Laparoscopic hysterectomy—Our experience and some technical aspects

S. Tomov, G. Gorchev, L. Tanchev

Gynecologic Oncolgy Clinic, Medical University—Pleven—Bulgaria

The **objective** of the authors is to present their results and some peculiarities in the technique of laparoscopic hysterectomies.

Materials and methods: for a period of three years (January 2006–December 2009) 293 laparoscopic hysterectomies were performed at the Gynecologic Oncolgy Clinic, Medical University—Pleven Bulgaria for benign and malignant gynecological tumours (for uterine myoma—200/68%, for adenomyosis—26/9%, for benign ovarian tumours—12/4%, for cervical carcinoma in situ—34/12%, for atypical hyperplasia of the endometrium—11/4% and for endometrial cancer—10/3%). Aaccording to the type of the hysterectomy 64 (22%) of them were laparoscopically assisted vaginal hysterectomies, 194 (66%)—laparoscopic hysterectomies with uterine arteries ligation and 35 (12%)—total laparoscopic hysterectomies.

The electrical-surgical procedures were realized with liga sure system (Valleylab) as well as with mono- and bipolar coagulator (Autocon II 400, Storz). In part of the cases Ultracision (Olympus) was used.
Results: the mean age of the patients was 47 (34–60). The mean duration of the surgical intervention was 97.5 minutes (40–155 min.) and the mean blood loss—95 ml (70–120 ml). The period of hospitalization varied between 2 and 4 days (mean 3 days). The following complications were recorded in 12 (4%) of the patients: bladder lesion—1 (0.3%), small intestines lesion—1 (0.3%), subcutaneous emphysema—2 (0.7%), hemoperitoneum on the first post-operative day—2 (0.7%), bleeding from the vaginal stump—2 (0.7%), pelveocelulitis—3 (1%) and conversion—1 (0.3%).
Conclusion: mastering the technique of the laparoscopic hysterectomy after proper training and the utilization of specialized apparatuses and instruments allow the intra- and post-operative complications to be reduced to the minimum.

P5_07

The clinical outcome after multidisciplinary laparoscopic segmental colorectal resection for deep infiltrating endometriosis
K. Gardanis, C. Tsaousidis, S. Becker, M. Zdichavsky, R. Rothmund, D. Wallwiener, E.F. Solomayer
University Department of Gynecology and Obstetrics, Tübingen, Germany

Background: Endometriosis is one of the most common benign diseases in premenopausal women. The extent of disease can vary from small disseminated lesions in the peritoneum to infiltration of the rectum, vagina or bladder. The most effective therapy is the complete dissection of the deep infiltrating endometriosis. A large series of endoscopic colorectal resection followed by end to end anastomosis is reported. This study investigated retrospectively the clinical outcome of laparoscopic segmental colorectal resection for deep infiltrating endometriosis.
Methods: We analyzed 59 patients undergoing complete laparoscopic resection for deep infiltrating endometriosis in the years 2007 and 2008. Of the 59 women, 15 (25.4%) underwent laparoscopic segmental colorectal resection. Data analysis included preoperative symptoms, age of women, operative procedure, operation time, intraoperative and postoperative complication, length of stay. Furthermore quality of life and symptom outcomes were evaluated by questionnaires completed 6 months after surgery.
Results: No intraoperative complications occurred. One conversion to laparotomy was required. There were one (1.7%) major complication (anastomosic leakage). All the patients reported significant improvement of dyspareunia, dysmenorrhea, cramping and pain at defecation after the operation.
Conclusion: The laparoscopic segmental colorectal resection for deep infiltrating endometriosis represents a difficult surgery which require a high surgeon skill and a multidisciplinary approach. The procedure is safe and effective in women with deep infiltrating endometriosis.

P5_08

Long term results after total laparoscopic Hysterectomy
De Los Ríos Jose, Castañeda Juan, Calle Gustavo, Serna Eduardo, Vásquez Ricardo, Mejia Ana, Arango Adriana, Muñoz Camilo, Muñoz Henry, Almanza Luis, Buitrago Carlos
Gynaecological Endoscopy Unit, Clínica del Prado, Medellín, Colombia

Objective: To describe long term results in a group of patients who underwent Total Laparoscopic Hysterectomy.
Study Type: Descriptive, prospective. Evidence Level III.
Sample and Setting: 168 patients operated more than a year ago in the Gynecological Endoscopy Unit at Clínica del Prado, Medellín, Colombia.
Methods: Long term follow up have been done in 231 patients who have undergone total laparoscopic Hysterectomy at our Unit. A questionnaire was applied and a physical exam was done trying to found any consequence of the surgery.
Main outcomes: Demographic data, Urinary, defecatory and sexual dysfunctions, de novo urinary incontinence, vault prolapse, vaginal cuff Granuloma, incisional hernia, satisfaction level.
Results: 63 patients in whom follow up time was less than a year were excluded from the analysis. 168 patients were included. Mean age was 43.3 years. Mean follow up was 26.5 months. 18 (10.7%) patients had symptoms of urinary dysfunction, 7 (4.1%) of defecatory dysfunction and 14 (8.3%) of sexual dysfunction developed after surgery. 24 patients (14.2%) complained of de novo urinary incontinence. Main value for D point according to POPQ system was (-) 6.6 cms and the average vaginal length 7.5 cms. There was only one port site hernia (0.6%). 4 patients had vaginal cuff granulomas (2.3%). 4 patients (2.3%) required additional surgery after hysterectomy, 3 for adhesiolysis and 1 for enterocele correction. 159 patients (94.6%) would recommend the procedure. In a visual analog scale, the mean satisfaction score was 9,65.
Conclusions: Long term follow up of patients with total laparoscopic Hysterectomy is not different from other approaches. Satisfaction rate is high. After 26.5 months of follow up there were no cases of vault prolapse.

P5_09

Outpatient total laparoscopic hysterectomy: Institutional experience
Calle Gustavo, De Los Ríos Jose, Castañeda Juan, Serna Eduardo, Vásquez Ricardo, Mejia Ana, Arango Adriana, Muñoz Henry
Gynecological Endoscopy Unit, Clínica del Prado, Medellín, Colombia

Objective: To describe the results of a group of patients in which total laparoscopic hysterectomy was done as an outpatient procedure.
Study Type: Descriptive, prospective. Evidence Level III.
Sample and Setting: 297 women who underwent total laparoscopic hysterectomy and were managed on ambulatory basis in the Gynecological Endoscopy Unit at Clínica del Prado, Medellín, Colombia.
Methods: we compiled data about the post-operative behavior of this cohort of patients by means of a strict follow up, telephonic questionnaires, and visual analogue scales (VSA) for pain and satisfaction.
Main outcomes: Demographic data, surgical time, estimated blood loss, uterine weight, overall length of stay (OALOS), Post-operative length of stay (POLOS), post-operative complications rate, hospital readmission rate, post-operative pain, nausea and vomiting rate, satisfaction with ambulatory management.
Results: 297 patients were analyzed. Mean age was 42 years, surgical time 79.1 minutes, estimated blood loss 37.1 mL, OALOS: 9,4 hours, POLOS: 5.38 hours. Postoperative complication rate was 11.78%, readmission rate was 3.3%. Mean VAS Score for pain during the first night was 4.17. 6% of patients vomited at home. Mean VAS Score for satisfaction with ambulatory management was 9.5, and 99% of the patients would recommend this type of management to a family member.

Conclusions: Ambulatory management after total laparoscopic hysterectomy is possible, safe and well evaluated by patients. It does not impose a higher risk of complications and readmission rate is low.

P5_10

Total laparoscopic radical hysterectomy. A pilot study of feasibility and safety

T. Bielik[1], M. Karovic[1], V. Balaz[1], R. Trska[1], J. Adam[2].
[1)]*Slovak Medical University, F.D. Roosevelt Hospital, Banská Bystrica, Slovak Republic*
[2)]*J. A. Reiman Hospital, Prešov, Slovak Republic*

The purpose of this study was to retrospectively evaluate, in a series of 6 patients, the feasibility, morbidity, and safety of total laparoscopic radical hysterectomy with pelvic and paraaortic lymphadenectomy for early cervical cancer. Six nonconsecutive patients with FIGO stage IA1 LVI+(n=1), IA2 LVI+(n=1), IB1 (n=3) and IB2 (n=1) cervical cancer was eveluated in a period of march to november 2008. Two patients underwent a laparoscopic radical hysterectomy with pelvic lymphadenectomy class II procedure, and four patients underwent a class III procedure according to the Piver classification. Paraaortic lymphadenectomy was performed according FIGO classification and result ot the frozen section. The patients´ mean age was 41,8 years, with body mass index of 21,2 kg/m^2. The median operative time was 275,5 minutes (range 180–333 minutes) and the median blood loss was 167,7 ml (range 100–230 ml). The mean resected pelvic nodes was 23,5 (range 19–30) and paraaortic nodes 8,25 (range 6–11). Major intraoperative complications did not occur and no patient required a blood transfusion. Al patients was underwent an adjuvant oncologic therapy.

Table 1. Clinical and histological charakteristics

Age (y)	45	52	36	41	39	38
BMI (kg/m^2)	20	19	20	24	24	21
Histological type	adeno	squamo	adeno	squamo	squamo	adeno endometrioid
Grading	1–2	2	1	1	1-2	1
LVI	–	+	+	–	–	–
Clinical stage	IB1	IA2	IA1	IB2	IB1	IB1

BMI—body mas index, LVI—lymfovascular invasion

Results:

Table 2. Intraoperive and patological charakteristics

Nomber of LN (n)	30/1mts	29	24	20	38	33/5mts	29 (20–38)
Sentinel LN (n)	–	–	2 bilateral	2 bilateral	nonvisible	2/2mts bilateral	1,5 (0–2)
Pelvic LN (n)	19 /1mts	23	24	18	30	25/1mts	23,1 (19–30)
Paraaortic LN (n)	11 upper[2]	6 low[1]	–	–	8 upper[2]	8/2mts low[2]	8,25 (6–11)
FIGO stage	pT1b1pN1 G 2	pT1b1pN0 G 2	pT1a1pN0 G 1	pT1b1pN0 G 3	pT1a2pN0 G 1 G 1	pT1b1pN1 G 1–2	
Duration of oper. (min)	335	205	180	270	315	330	275,5 (180–335)
Blood loss (ml)	230	145	150	100	180	200	167,5 (100–230)

LN—lymph node, mts—metastasis, lower[1]—low paraaortic lymphadenectomy up the inferior mesenteric artery, upper[2]—upper paraaortic lymphadenectomy up the renal veins

Table 3. Comparison of our results according to literature

	No. (n)	Operat. time (min)	Blood loos (ml)	LN all (n)	Incidency of pozit. pelvic LN (%)	No. of pelvic LN (n)	No. of pts with paraaort. lympadenect. (n)	No. of paraaort. LN (n)	Intraoperat. complikations (%)
Hsieh 1998	10	298	476	25	20	19,2	10/10 (100%) low[1]	6,6	10
Dubuc-Lissoir 1999	23	390	475	30	13	23,6	13/23 56%) low[1]	4,8	8,6
Spirtos 2002	78	205	250	24	11,5	23,8	2/78 (2,6%) low[1]	10,3	11,5
Gil-Moreno 2005	27	285	400	25	11	19,1	2/27 (7,4%) low[1]	6,5	3,7
Malzoni 2007	65	196	55	30	13,8	23,5	8/65 (12,3%) low[1] ?	7,1	0
Puntambekar 2007	248	88	200	20	47,9	18	3/248 (1,2%) low[1] ?	2,7	6
Bielik 2008	6	275	167,5	29	33	23,5	4/6 (66,6%) 1× low[1] 3× upper[2]	8,2	0

low[1]—low paraaortic lymphadenectomy, upper[2]—upper paraaortic lymphadenectomy

Conclusion: laparoscopic treatment of cervical cancer offers patients potential benefits, but it should be reserved for oncologic surgeons trained in advanced laparoscopic procedures

P5_11

Total laparoscopic hysterectomy for the treatment of benign gynecological conditions: Results of the learning curve of a standardized technique

A. Protopapas, S. Athanasiou, I. Chatzipapas, A. Vlachos, K. Blanas, S. Milingos, A. Antsaklis
1st Department of Obstetrics & Gynecology, University of Athens, "Alexandra" Hospital, Athens, Greece

Objective: To present the results of a standardized technique of total laparoscopic hysterectomy (TLH) in patients with benign gynecological conditions.
Materials and Methods: We analyzed our first 30 cases managed in our Department with TLH using the uterine manipulator of Clermont-Ferrand, during the period: 2006–2009.
Results: The indication for TLH was a fibroid uterus in 14 cases, atypical endometrial hyperplasia in 3 cases, uterine prolapse in 12 cases, and recurrence of CIN-2 in 1 case, respectively. The median net duration of TLH was 145 minutes (range: 110–260) and the median blood loss was 100 mls (range: 80–250). In all cases with prolapse we performed additional procedures such as pelvic floor repair, plication of the uterosacral ligaments, sacro-colpopexy with a mesh, and placement of TVT-O. We had no laparoconversions. We had no serious preoperative or immediate postoperative complications apart from the loss of a suturing needle that was trapped under the rectus muscle and was located with a delay of 50 minutes. So far during the follow-up period 2 cases treated for a third degree uterine prolapse presented with a second degree prolapse of the vaginal vault, and 1 case had recurrence of her stress incontinence.
Conclusions: Total laparoscopic hysterectomy is a safe procedure, with a fast learning curve suitable for the management of a variety of benign gynecological surgical procedures. Cases treated for pelvic organ prolapse sould have additional procedures to reduce the possibility of a recurrence.

P5_12

Is hysteroscopic myomectomy an alternative for hysterectomy?

E. Lugo*, V. Cuccolo**, L. Mencaglia*
**Infertility Division of Florence Centre of Ambulatory Surgery, Italy*
***Gynecological and Obstetrics Clinic of Hospital Maggiore of Novara, Italy*

Uterine fibroids are the most common benign tumours of the uterus. Symptoms are related more to the location than the size of the tumor except than in extreme cases. The protrusion of the leiomyoma in the uterine cavity with anatomic distortion is associated with abnormal bleeding in almost all cases. Management depends on the symptoms, location, size and the patient's desire to conceive. Abdominal hysterectomy results is a good bleeding control in women with excessive uterine bleeding who have completed their family and intramural myoma. Howevere, the most fibroids can be managed endoscopically either by laparoscopy or hysteroscopy. Hysteroscopic myomectomy is an alternative to hysterectomy and should be offered to women with submucous fibroids because high satisfaction rates, shorter operation time, shorter hospital stay, earlier recovery and reduced post-operative complications. For the symptomatic fibroid, hysterectomy offers a definitive solution. However, it is not the preferred solution for women who wish to preserve their uterus. For the symptomatic fibroid, hysterectomy offers a definitive solution. Hysteroscopic resection of submucous myomas is now well established and is the preferred approach and the limitations of this technique are due to the number, size and location of the myomas. In our retrospective follow-up of 235 women with submucous fibroids at outpatient hysteroscopy who underwent a hysteroscopic transcervical resection; 25% of women were menopausal; 37% of patients had an associated endometrial ablation; 32% had a polyp resection. The indications was the abnormal uterine bleeding and fertility problems. After hysteroscopic myomectomy: 2.6% intra-operative complications and there was no major complication, the procedure was classed as a success in 94.4% of patients, 4 patients had a repeated hysteroscopic procedure, 3 patients had a subsequent hysterectomy, 4 patients presented with abnormal uterine bleeding at follow-up. In conclusion, the hysterectomy transcervical resection of submucous fibroids is a safe and highly effective long-term therapy for carefully selected women presenting with abnormal uterine bleeding and infertility problems. It produces satisfactory long-term results with few complications.

P5_13

Minimally invasive supracervical hysterectomy (LSH) by Ligasure (10 mm)

Vicente Bosque, Rafael Tineo, Regulo Coello
Policlinica Metropolitana, Caracas, Venezuela

Objective: Evaluate the effectiveness,security and advantages of Ligasure(10 mm).
Materials and methods: Prospective study of 56 patients underwent LSH with bipolar device Ligasure(10 mm). Gynecology unit.Policlinical Metropolitana, Caracas, Venezuela.
56 patients(32–60 years old,median age 44) submited to supracervical Laparoscopic hysterectomy for symptomatic benign conditions (leiomyomas.Adenomyosis).
Laparoscopic supracervical hysterectomies were made with Ligashure
Results: The surgeries were all 56 LSH.The surgical time Was between 58 and 140 minutes(median 85 minutes).
Complications were not recognized during the intraoperative,inmediate and late postoperative time.Only one herniation in 10 mm port 24 hours postoperative.That was resolve with a little ampliation of trocar site;and was not related with the use of Ligashure.
The estimated bleeding was between 40 to 450 cc;mean 80 cc.Uterus weight between 102gr–763gr.mean 322gr.
Only one conversion(0.56%).The visual analogue scale for pain at 12 hour was between 0–3; And 0–2 at 24 hours.The discharge was between 14 to 24 hours.
Conclusions: The LSH using Ligasure is an effective surgery ,with high grade of safety.This technique allows to cut and coagulate,better than an ultrasonic scalpel mostly when a larger uterus and big varicose veins are present.With rational use the ligasure demonstrate a good choice for LSH.

P5_14

Laparoscopic hysterectomy with bipolar forceps and Kenlet's multimodal anaesthesia: a better control of postoperatory pain

F. Riboni, D. Surico, A. Vigone, E. Paulli, L. Leo, N. Surico.
Advanced Gynaecological Oncology Centre, Department of Obstetrics and Gynaecology, University of Eastern Piedmont, Novara, Italy.

Objective: laparoscopic hysterectomy with BiClamp and Kenlet's multimodal anaesthesia represents a new surgical treatment of benign gynecologic disease.
Materials and Methods: the study is a prospective randomized study. We compared the laparoscopic hysterectomy with salpingo-oophorectomies with BiClamp and multimodal anaesthesia (group A, 22 patients) with laparoscopic hysterectomy with salpingo-oophorectomies and general anaesthesia (group B, 20 patients). Exclusion criteria were: uteri >12 weeks of gestational size, BMI> 30, cardiopulmonary pathologies or coagulopathies. The Kenlet's multimodal anaesthesia consisted with an association of a general and local anaesthesia with paracervical and pudendal anaesthetic block. The control of postoperatory pain is estimated with VAS scale at the end of anaesthesia, at 2 hours and 6 hours from the surgery, to 10 pm and at 8 a.m. and 10 p.m. in the following days of stay in hospital. In both groups, postoperative analgesia was carried out with ketorolac and tramadol.
Results: The median operating time (113.57 minutes), the median blood loss (59.25 ml) and the median hospital stay (1.6±0.58 days) were not statistically different between groups. The postoperative pain was statistically lower in group A in the immediate postoperatory times, at 2 and at 6 hours from the surgery and at 10 p.m. ($p<0.0001$).
Conclusions: The Kenlet's multimodal anaesthesia in laparoscopic surgery represents a new technique with a better control of pain. The Kenlet's anaesthesia permits the amount of systematically administered analgesic drugs to be minimized both during and after the surgery and also the side effects such as nausea, drowsiness and urinary retention are reduced. This new technique offers patients an improved quality of postoperative life.

P5_15

Comparison of abdominal and vaginal hysterectomies in Vilnius City University Hospital, Department of Gynaecology

Oldas Tamašauskas, Agnė Marcinkutė, Gediminas Mečėjus
Vilnius City University Hospital, Vilnius, Lithuania

Objective: To compare surgical aspects and postoperative period peculiarities between abdominal and vaginal hysterectomy; to evaluate factors, limiting the performance of vaginal hysterectomy.
Materials and Methods: Retrospective case-histories' analysis of all women who underwent hysterectomy in the period of January 2006 to May 2008 was made. Study population was divided into two groups: [A] abdominal hysterectomy (n=86) and [B] vaginal hysterectomy (n=154) for the description of operation and post-operative period also for determination of statistically significant relations. Differences are considered significant when $p<0,05$.
Results: Mean time for surgery in group [A] was 94±41, in group [B] 79±28 minutes ($p<0,05$). Mean time for surgery and uterus weight did not differ significantly among vaginally operated women who previously had delivered and who had not. Postoperative hospital stay in group [A] was 145±63, in group [B] 97±60 hours ($p<0,05$). Narcotic analgetics were given in group [A] meanly 2,7 doses, in group [B] 1,8 doses ($p<0,05$). Complication rate did not differ: in both groups it made about 7 per cent. The most frequent complication in group [A] was wound suppuration (3×), in group[B]—bladder injury (7×).
Conclusions: Vaginal hysterectomy is superior to abdominal as it takes less time, hospital stay is shorter and requirement of analgetics is less. Complication rate do not differ performing hysterectomy in both ways. Previous parity do not influence the ability to perform vaginal hysterectomy.

P5_16

Risk of conversion laparoscopic hysterectomy to laparotomic in relation to its technical complexity: A retrospective study

A.I. Martínez Hernández, C. Casanova Pedraz, J. Subirá Nadal, P. Polo Sánchez, J. Gilabert Estellés
University Hospital La Fe, Valencia, Spain

Objective: Laparoscopic approach to hysterectomy is a well-established procedure nowadays, thus demonstrating clear advantages over LPT. Nevertheless, it also presents potential complications that sometimes force to convert hysterectomy to LPT. The aim of our study is to ascertain the conversion risk of HST previously started via LPS.
Materials and methods: We designed an analytic retrospective study in which we included about 80 HST LPS performed in our centre between 2007 and 2009. We performed a complexity score capable of distinguishing a conventional HST LPS from one with high degree of technical difficulty based on variables such as: patient's age, BMI, history of abdominal surgery, transverse diameter of uterus, uterine weight, surgical time and hospital stay. Among the assessed technical complications we found: ligation in origin of uterine artery and/or infundibulopelvic ligament, morcellation using a cold scalpel and ligation of uterine vessels.
Results and conclusions: From the sample size obtained to date, mean age of patients is 47 years old, BMI lower than 35 kg/m2, history of vaginal delivery in 76% of the women and only 17% had previous abdominal surgery. Mean hospital stay is 2.5 days. The remaining data are still being analysed.

P5_17

Laparoscopic-assisted vaginal hysterectomy versus total 6255 abdominal hysterectomy

C. Carnide, M. Branquinho, A. Marques, J. Almeida, M.G. Castro, F. Geraldes, F. Águas
Department of Gynaecology, Bissaya Barreto Maternity, Centro Hospitalar de Coimbra, Coimbra, Portugal

Objective: Compare operative and postoperative outcomes of laparoscopic-assisted vaginal hysterectomy (LAVH) and total abdominal hysterectomy (TAH), for benign gynaecologic disease.
Material and Methods: A case-control study of 232 women submitted to LAVH and TAH, from January 2007 to December 2008.
Results: We included 116 patients in LAVH group and 116 in TAH group (controls). The groups were similar in respect to age, weight, medical comorbidities and previous surgeries. Regarding surgical

indications, the major cause in both groups was myoma uteri although statistically different in LAVH and TAH groups (61,2% vs 81%, p<0,0001). There was no significant difference in prophylactic antibiotherapy. The operative time (116,2 min vs 108,7 min, p=0,046) and the postoperative hospital stay (3,1 days vs 4,1 days, p<0,0001) was significantly different between the 2 groups. There was no difference in global intraoperative complication rate. Moreover there was a trend to more blood loss in the TAH group (5,2% vs 0,9%) and more bladder injuries in the LAVH group (5,2% vs 1,7%). The postoperative complication rate between the 2 groups was significantly lower for LAVH (p=0,008).

Conclusions: LAVH has a shorter length of hospital stay and quicker return to work than TAH. Also, LAVH does not increase significantly intraoperative complications and is associated with lower postoperative complication rate. LAVH is an alternative choice to treat benign gynaecologic disease when performed by well trained operators.

P5_18

Analysis of complications related to laparoscopic supracervical hysterectomy (LSH). A retrospective study

Łukasz Lewczuk, Marcin Wieczorek, Małgorzata Gorzała, Paweł Siekierski, Jacek szymański, Piotr Kukulski
Snt. Sophia Hospital, Warsaw, Poland

Objective: Recently laparoscopic techniques are increasingly used in gynaecological surgery due to their well known advantages. However, man can assume, that the advanced laparoscopic procedures carry the higher risk of complications. The aim of this study is to evaluate the intra operative and early post operative complications associated to total laparoscopic hysterectomy.

Material and methods: A retrospective analysis is based on 37 LASH procedures performed in Snt. Sophia Hospital in Warsaw from January 1996 to December 2008.

Results: The mean age of patients was 43,5 (38,50), mean BMI was 25 (20,30). In 33 patients (89,1%) uterine fibromas were an indication for histerectomy, in 4 cases (10,9%) the operation was preformed due to abnormal uterine bleedings, in 10 cases (27,0%) both uterine fibromas and abnormal uterine bleedings were an indication for intervention. 17 patients (45,9%) gave previous laparotomy in history and in 4 cases (10,8%) previous laparoscopy was performed. The mean operative time was 113 min (60,180), the average blood loss was 418 ml (50,1200), the mean hospital stay was 3,8 days (2,12). No major complications were observed. The minor complications occurred in 13 patients (37,8%): 9 patients (24,3%) developed post operative anemia, in 3 cases (8,1%) a fever was observed.

Conclusion: LASH seems to be a safe surgical procedure with low incidence of complications.

P5_19

The important role of residents in the introduction of laparoscopic hysterectomy in general practice

JF Ter Haar, JMA Pijnenborg
Department of Obstetrics & Gynaecology, TweeSteden Hospital, Tilburg, The Netherlands

Objective: To identify the choice of surgical route in patients who were planned for a hysterectomy for benign or premalignant reasons, as planned by residents, general gynecologists and laparoscopic-orientated gynecologists. To propose a guideline for residents and general gynecologist with appropriate criteria for the selection of patients suitable for a laparoscopic hysterectomy.

Design & methods: A retrospective analysis was performed of all patients who were planned for a hysterectomy for benign or premalignant indication between January 2005 and April 2009 in a teaching hospital in the South of The Netherlands.

Results: A total of 388 hysterectomies were performed during the study period. 151 (38,9%) patients were planned for an abdominal approach, 139 (35,8%) for a vaginal approach, and 98 (25,2%) for a laparoscopic approach. The percentage of planned vaginal hysterectomies was not significantly different between residents, general gynecologists and laparoscopic-orientated gynecologists. However, there was a large difference between the percentage of planned laparoscopic hysterectomies (LH) by residents (30%) compared to general gynecologists (6%). As expected laparoscopic-orientated gynecologists planned most of the laparoscopic hysterectomies (53%).

Conclusions: The choice of a laparoscopic hysterectomy (LH) as alternative to abdominal hysterectomy (AH) is poorly implemented by general gynecologists. Residents seem to be more open to new techniques and could play an important role in the change of surgical route such as a laparoscopic approach. A simple guideline could help general gynecologist to select patients appropriate for laparoscopic hysterectomy.

P5_20

Cost implications of current approaches to hysterectomy

LJ Hole, A Derbyshire, RJW Henry, TT Carpenter
Department of Obstetrics & Gynaecology, Poole General Hospital, Poole, Dorset, UK

Advances in both the equipment and surgical expertise in minimal access surgery have broadened the choice of approach for women requiring hysterectomy for benign conditions. Studies such as eVALuate have demonstrated that laparoscopic approaches involve less pain and speedier post-operative recovery compared to open procedures. However, little has been made of the relative cost implications and no large studies have thus far compared laparoscopic total with laparoscopic subtotal techniques in terms of either cost or outcome.

We carried out a retrospective case-based comparison of five different types of hysterectomy: total abdominal (TAH), vaginal (VH), laparoscopic subtotal (LASH), total laparoscopic (TLH) and laparoscopic-assisted vaginal (LAVH). 10 sets of notes in each group were analysed for operating time, surgical costs and length of stay in a busy NHS gynaecological department.

Comparative results for operative and length of stay costs for conventional versus laparoscopic surgery will be presented and conclusions drawn with regard to possible solutions for an increasingly financially compromised health service.

P5_21

Total laparoscopic hysterectomy. A review of 125 cases

Rana Karayalçın, Sarp Özcan, Özlem Uzunlar, Ümit Bilge, Leyla Mollamahmutoğlu Zekai Tahir Burak Kadın Sağlığı Hastanesi
Zekai Tahir Burak Women'S Hospital, Turkey

Objective: The aim of this study was to evaluate the complication rate after laparoscopic total hysterectomy and review of 125 in cases for benign diseases.*Design:* All complications were prospectively recorded at the time of surgery and analysed retrospectively. *Setting:* Tertiary educational hospital gynecology clinic.
Methods: Laparoscopic hysterectomies (TLH), defined as total laparoscopic hysterectomy in 125 patients performed for benign pelvic pathologies between 2008–2009 were evaluated retrospectively. All cases were completed laparoscopically with two 5 mm ancillary trocar entrance. Coagulation and transections were performed with bipolar electrocoagulation. Vaginal cuff was sutured with 1–0 vicryl suture continious manner intracorporally.
Main Outcome Measures and Results: Since the early 1990s, the number of laparoscopic procedures has continued to grow, we started to performe total laparoscopic hysterectomy in an unselected population for hysterectomy. In concecuative 125 patients we evaluated early and late minor and major complications.We had two minor complications fever> 38.5 degrees C after 2 days treated with broad-spectrum antibiotics. We had cuff cellulitis in two other cases also treated with broad-spectrum antibiotics and topical treatment. We had no major complication such as haemorrhage, vesicoperitoneal fistula, ureteral injury, rectal perforation or fistula. Mean operative time is 90 minutes.There were no blood transfusion need for hemorrhage. Mean hospital stay is two days.
Conclusion: The results from our series of 125 women clearly show that, in experienced hands, laparoscopic hysterectomy is not associated with any increase in major complication rates.
Keywords: Total laparoscopic hysterectomy, postoperative complications

P5_22

Single incision laparoscopy assisted vaginal hysterectomy
Oumar Camara, Ingo B. Runnebaum
Friedrich-Schiller University of Jena, Department Obstetric and Gynecology, Germany

Since the first publication in 1989, laparoscopic assisted hysterectomy has become increasingly used in many parts of the world. Hysterectomy for benigne disease is the most performed surgery in Gynecology. In our department laparoscopic surgery is the major technique used. Usually 4 to 5 pot sites are used depending on the extent of the procedure.
We describe a 41 years old woman with symptomatic myoma of the uterus, treated with a single incision laparoscopy assited vaginal hysterectomy. The total weight of the specimen was 1500 g. We describe the technique und future directions will be discussed.

P5_23

Necrotizing Fasciitis (NF): An Unusual Complication of Laparoscopically Assisted Vaginal Hysterectomy (LAVH)
E. Lorenzo Hernando, L. Marqueta Marqués, L. Muñoz Hernando, A. Tejerizo García, G. López González, J.L. Muñoz González, J.S. Jiménez López
Hospital Doce de Octubre, Madrid, Spain

Case Report: A 39-year-old previously healthy woman underwent LAVH for metrorrhagia and dysmenorrhea which did not respond to medical approach. Laparoscopic technique was uneventful. The patient presented febricula, hypotension, oliguria, diarrhea and cutaneous rash 4 days after surgery. CT exam on the 5th day excluded intra-abdominal findings and confirmed soft tissue infection signs in the right abdominal wall. These and the presence of Streptococcus pyogenes in hemoculture allowed us to make diagnosis of NF affecting the area around right pelvic trocar-site. Deep dermolipectomy with post-surgery negative pressure therapy and broad-spectrum antibiotics were used. Two months after the event skin grafting was performed to cover the defect.
Conclusion: To our knowledge only one case of NF after LAVH has been previously reported. NF is a bacterial infectious syndrome affecting dermis and fascia with a mortality rate as high as 20%. It is usually diagnosed in patients with risk factors (old age, diabetes, immunosuppression) but, as showed, it could be a rare but real complication of laparoscopy in young healthy patients. Early recognition of symptoms (no other infectious foci, clinical septic shock, skin redness…), radical debridement surgery and exhaustive antibiotic therapy are the key to reduce the risk of death.

P5_24

Laparoscopic supracervical hysterectomy: 4-year experience in a large center for gynecological endoscopy
R. Rothmund, T. Fehm, K. Gardanis, S. Becker, B. Krämer, D. Wallwiener, E. Solomayer
University Department of Gynecology and Obstetrics, Tuebingen, Germany

Introduction: Laparoscopic supracervical hysterectomy (LASH) is a minimally invasive procedure that was developed in the early 90 s as an efficient method for uterine extirpation for selected patients. We report on our 4-year experience.
Methods: During the last four years, 427 patients underwent laparoscopic supracervical hysterectomy (LASH) for benign conditions at the Dept. Gyn /OB, Tuebingen, Germany. Clinical data, intraoperative and postoperative complications were retrospectively evaluated.
Results: Between 2005 and 2008, 427 laparoscopic supracervical hysterectomies were performed for benign conditions including symptomatic fibroids (n=381), menorrhage bleeding (n=14) and endometriosis (n=32). The average duration of surgery was 90 minutes (range 27–270 minutes). (Fibroids 80 minutes, range 40–270 minutes; menorrhage bleeding 77 minutes, range 40–120 minutes, endometriosis 101 minutes, range 50–250 minutes) No conversion to laparotomy was necessary in all cases. Blood loss was 44 ml on average (range 0–600 ml). (Fibroids 45 ml, range 0–600 ml; menorrhage bleeding 16 ml, range 0–50 ml; endometriosis 42 ml, range 0–200 ml).The average weight of the uteri was 217 g (range 40–1400 g). (Fibroids 223 g, range 40–1400 g; menorrhage bleeding 94 g, range 40–165 g; endometriosis 195 g, range 50–1193 g) The mean length of hospital stay was 3,3 days (range 2–11 days).
Complications occurred in 2,6% of patients including urinary tract infections (n=5), subcutaneous hematoma (n=2), subcutaneous emphysema (n=1), temporarily urinary obstruction (n=1) and temporarily retention of urine (n=1), minor vaginal bleeding (n=1). No patient required blood transfusion after surgery. There were no bowel or urinary tract injuries. No secondary surgical intervention was necessary.
Conclusion: Laparoscopic supracervical hysterectomy for treatment of benign conditions of the uterus is a safe procedure and associated with reduced operating time and minimal blood loss.

P5_25

Experiences following intra-fascial Laparoscopic Hysterectomy (LHi). Long-term outcomes and follow-up

A. Kent, N. Waters
Minimal Access Therapy Training Unit, Guildford, UK

Introduction: Hysterectomy is a relatively common procedure. There are various conditions requiring hysterectomy, the most common include bleeding disorders and/or fibroids. Hysterectomy may be performed by open surgery, by vaginal surgery or laparoscopically. The procedure may consist of removal of the whole uterus, or the cervix may be left behind. The choice of procedure usually depends on the woman's condition and medical history, as well as tradition and experience at the department performing the surgery. There is a trend in some units to promote subtotal laparoscopic hysterectomy as an easier, quicker and safer operation with more acceptable long-term outcomes.
At the Department of Gynaecology in Guildford, we have developed a technique of intra-fascial laparoscopic hysterectomy (LHi) using the Harmonic shears, carried out in an extended day case setting utilising an integrated care pathway. The technique challenges many of the reasons promulgated as to the benefits of subtotal LH. It is quick, safe and more flexible than many of the techniques described for subtotal LH, and on average requires less total port incisions as there is no requirement for morcellation, suturing or application of additional equipment such as lap loops.
Methods: To date 289 laparoscopic hysterectomies have been carried out as extended day case procedures via our integrated care pathway since March 2004. Intra-operative conversion rates are under 2.5% and initial satisfaction rates are in excess of 95% at 8 weeks post operation. In order to assess long-term outcomes, a questionnaire designed to assess bleeding, pain and sexual function was sent to all women who had undergone laparoscopic hysterectomy via the pathway.
Conclusion: We will demonstrate the technique of intra-fascial Laparoscopic Hysterectomy (LHi) and present our data on long-term follow-up.

Oncology

P6_01

Our experience of laparoscopy and laparotomy on ovarian tumors

Eunseop Song
Obstetrics and Gynecology, Inha University Hospital, Incheon, S. Korea

Objective: To know what are different on ovarian tumor removal between laparoscopy or laparotomy.
Material and Methods: From 2003 2008, chart of 174 patients who underwent laparoscopy and 91 who underwent laparotomy at department of OBGY, Inha University Hospital, were analyzed retrospectively.
Results: The age of laparoscopy group (LSC) was 37.2±11.4 years old, which was significantly younger than that of laparoscopic group (LT) (44.2±15.3). Level of CA-125 and size of mass were significantly different (44.6±109.7 to 173.1±372.6, and 5.8±3.1 cm to 10.4±4.7 cm). 77.6% of operation title was occupied by unilateral salpingo-oophorectomy (SO) in LSC, but 31.9% by unilateral SO and 31.9% by cancer operation in LT. The pathologic results of LSC were benign (96.5%) and cancer (3.5%), but those of LT were benign (61.5%) and cancer (38.5%). The duration of operation was 77.4± 39.7 min (LSC) and 151.9±103.7 min (LT), and amount of blood loss was 116.5±182.2 ml (LSC) and 492.6±673.0 ml (LT). Difference of hemoglobin change in two groups was not significant. The average duration of hospitalization in LSC was 6.5±2.9 days, that was significantly shorter than in LT (10.6±4.8 days).
Conclusion: The patients undergone laparoscopy were younger and had lower parity and CA-125 than those undergone laparotomy. Type of operation performed in LSC was mainly unilateral SO. Percentage of benign pathology in LSC was much higher than in LT. Duration of operation was shorter and amount of blood loss was smaller in LSC. In addition they hospitalized shorter and had less complications.

P6_02

Multidimensional assessment of the learning curve for laparoscopic lymphadenectomy in patients with gynecologic malignancies: A preliminary report

Suk-Joon Chang, Woo Young Kim, Jong-Hyuck Yoon, Seung-Chul Yoo, Ki-Hong Chang, Hee-Sug Ryu
Ajou University School of Medicine, Korea

Objective: Laparoscopic surgery is a surgeon-dependent and time-consuming procedure, which requires a high degree of technical skill. Multidimensional learning curve, which includes operation time, conversion, major complications, and surgical morbidity, is particularly useful for analysis of the surgeon's performance. This study was conducted to define a multidimensional learning curve for laparoscopic lymphadenectomy in patients with gynecologic malignancies.
Methods: We prospectively analyzed a total of 19 gynecologic cancer patients who underwent laparoscopic cancer surgery including lymphadenectomy at our institution between 2006 and 2007. One surgeon, who had completed a 2-year fellowship courses on gynecologic cancer surgery in two university hospitals, performed all procedures. The medical records of all patients were reviewed and analyzed. The moving average method was used to demonstrate the change of the operation time for lymphadenectomy. Cumulative sum method was used to analyze the changes in the total number of retrieved lymph nodes, laparotomy conversion, and complications.
Result: The operation time decreased from 165.9 minutes to 145.0 minutes after 10 operations. The number of retrieved lymph nodes (≥ 11) and complications were reached to a steady state after 13–14 consecutive procedures (90% success rate). There was no laparotomy conversions.
Conclusion: The assessment of learning curve should not be limited to measurement of a decrease in operation time, but should also include the optimal oncologic outcome (e.g., lymph node count), complications, and conversion rates. These data might be especially useful for those planning training programs in laparoscopic gynecologic cancer surgery.

P6_03

Management of symptomatic pelvic lymphocyst after radical pelvic or pelvic and paraaortic lymphadenectomy for cervical and endometrial cancer

Daniel A. Beyer, Amadeus Hornemann, Cornelia Banz, Katharina Kelling, Feriel Amari, Klaus Diedrich, Andreas Kavallaris
Department of Obstetrics and Gynaecology, University of Schleswig-Holstein, Campus Luebeck, Luebeck, Germany

Introduction: Pelvic and paraaortic lymph node dissection as part of the staging surgery for cervical and endometrial carcinoma, interrupts the afferent lymphatics. The high acceptance by the community of gyn-oncologists, was after finding that laparoscopic lymphadenectomy can be performed in the majority of patients and is associated with low complication rate. Incidence of lymphocele formation and incidence of severe complications associated with lymphocele, such as infection, deep venous thrombosis or urinary tract occlusion, were retrospectively evaluated in the last year's (01.2001-01.2007) after surgery.
Patients and methods: From January 2001 to January 2007, 226 women underwent surgery including pelvic or pelvic and paraaortic lymphadenectomy for primary gynecological pelvic malignancies, of which 68 (30%) patients with cervical cancer and 158 (60%) patients with endometrial cancer, all of them were retrospectively analysed. Patients with symptoms such as pain in the pelvic area, lymphedema or suspicious cyst in the pelvis were sent to our clinic for further evaluation. The identification was made by physical examination, and confirmed by US or CT.
Results: 23 out of 226 (10.2%) patients were diagnosed to have symptomatic pelvic lymphocyst. Additionally, 2 of the 23 patients had lymphedema, other 2 of 23 patients had lymphocystinfection, 1 of 23 patients had deep venous thrombosis, and 1 of 23 patients had ureteral stenosis. A partial-(ventral)-resection of the lymphocyst was performed. Median duration of the hospital stay was 12.5 days and median duration of the drainage was 10 days. Laparoscopic lymphocyst resection and drainage was in 22 patients successful. In 1 patient a re-laparoscopy was necessary because of a recurrent lymphocyst formation 6 months after the operation.
Conclusions: The Laparoscopic lymphocyst resection is a safe and effective procedure and was applied in all 23 patients successfully.

P6_04

Russian experience in abdominal radical trachelectomy
E.G. Novikova, V.A. Antipov, A.S. Shevchuk, O.V. Novicova, O.S. Balakhontseva
Moscow Herzen Oncology Institute, Russia

In Moscow Herzen Oncology Institute radical abdominal trachelectomy with preservation of the uterine arteries from October 2005 to March 2009 was planned in 54 patients with early-stage cervical cancer (Ia1–Iв2). Patients' mean age was 33,2 years old (range 22–44). In 7 cases the operation had to be expanded to radical hysterectomy with transposition of ovaries (4 women) or removal of ovaries (3 women) followed by radiation therapy in all 7 patients. The conversion was done either because of positive lymph nodes by the results of frozen section (4 cases) or detection of tumor cells at the resection margin (3 cases). Thus abdominal trachelectomy was successfully completed in 47 of 54 planned cases. Histological type of the tumor in 35/47 cases (75%) corresponded to squamous cell carcinoma, in 11 cases (23%)—to adenocarcinoma and in 1 case (2%)—to adenosquamous carcinoma. Final histological analysis revealed metastases in pelvic lymph nodes in 2 patients, they were treated by radical hysterectomy with transposition of the ovaries followed by radiation therapy. The median follow-up was 15 months (1–41). There were two recurrences (4,2%) and no deaths. The recurrences in both cases involved uterine vaginal anastomosis and were detected at 3 and 4 months after RAT. The patients were treated by radical hysterectomy, radiation therapy and chemotherapy. The menstrual cycle resumed in all patients. Five patients developed cervical stenosis that required dilatation. We recommended pregnancy not earlier than 18 months post operation. Among such 20 patients only 11 desired to conceive. No pregnancies are reported till now. IVF or other ART methods have not been used in our patients yet. Our study supports the use of fertility-sparing radical trachelectomy to treat select patients with stage IA1– IB2 cervical carcinoma, with equivalent oncologic outcomes to those of a radical hysterectomy. Clearly, a longer follow-up in this population is needed to determine the oncologic and reproductive outcome of this approach.

P6_05

Predictive value of Loop Electrosurgical Excision Procedure (LEEP) margin for Cervical Intraepithelial Neoplasia (CIN) residual disease
I. Dellacasa, P. Sommaruga, G. Vlastos, J.B. Dubuisson, A.T. Vlastos
Geneva University Hospital, Department of Obstetrics and Genecology, Geneva, Switzerland

Introduction: Conisation is the treatment of choice for CIN. In most cases the lesions are completely removed, however, involvement of the resection margins may occur, leading to follow-up difficulties. The aim of this study is to investigate margins as an indicator of residual disease for CIN.
Material and Methods: Retrospective charts and slides review of 385 consecutive CIN, all treated for CIN2 or CIN3 from 1997 to 2004, in our institution. Mean age was 37.4 years (range 16–89) at operation time. Final histological analysis showed 8 (2%) cases of CIN I, 48 (12%) CIN II and 329 (85%) CIN III. LEEP was performed in 382 (99.2%) cases and cold knife in 3 cases (0.7%).
Results: From the 385 cases, histological analysis showed disease free margins (DFM) in 298 (77.4%) cases and positive margins (PM) in 87 (22.6%). 39(44.8%) had endocervical PM and 48 (55.2%) exocervical PM. Out of 329 CIN3, 34(10.3%) had endocervical PM and 44(13.3%) exocervical PM. For the 48 CIN2 lesions 5(10.4%) had endocervical PM and 4(8.3%) exocervical PM. At the 6 months follow up PAP smear, 295 (76.6%) cases had normal results. Among the 87 cases with PM, 81 (90%) had normal results, 6 (7.4%) showed CIN1. In the CIN II group there were no recurrences in PM or DFM cases. In the CIN III group there were 5(8.4%) recurrences in PM cases but 15 (24.5%) cases in the group with DFM had a recurrence.
Conclusion: CIN3 are not more likely to have PM than CIN2. Margins criterion is not a good indicator for CIN residual disease. Moreover, many relapses occur in DFM cases especially with CIN3 where new infection could be of major importance.

P6_06

Differential expression of matrix metalloproteinases 9 (MMP-9) in vulvar intraepithelial neoplasia (VIN) and carcinoma
I. Dellacasa[1], V. Beffa[1], F. Capanna[1], M.F. Pelte[2], G. Vlastos[1], J.B. Dubuisson[1], A.T. Vlastos[1]
[1]*Department of Gynecology and Obstetrics, Geneva University Hospital, Geneva, Switzerland*
[2]*Department of Pathology, Geneva University Hospital, Geneva, Switzerland*

Purpose: The matrix metalloproteinases are a family of degradative enzymes that are clearly linked with malignancy. They are implicated at different levels of tumour progression. Correlation of MMPs

expression to invasiveness and metastatic potential in several cancer including breast and ovarian (MMP-14) or cervical carcinoma (MMP-1, MMP-15) in vivo and in vitro has been well documented. MMP-9 is a collagenase type IV also called gelatinase B. Its expression in vulvar dysplasia and its clinical significance is still unknown.

Experimental design: We used immunohistochemistry to analyse MMP-9 differential expression in 39 specimen obtained from patients with a histologically proved VIN1 (9), VIN2 (9), VIN3 (6), vulvar carcinoma (8) and normal specimen (7). Results: The expression of MMP-9 in a normal epithelium is 7%, 30% in VIN1, 77% in VIN2, 81% in VIN3 and 100% in carcinoma. Fisher test show statistically significant results when comparing normal vulva to VIN1 (P=0.003), VIN2 (P=0.0001), VIN3 (P=0.0001) and vulvar carcinoma (P=0.0001). When comparing VIN1 to VIN2, VIN3 and vulvar carcinoma, the results were the same (P=0.0001). In VIN2 the expression of MMP-9 was different and the differential expression did not achieve statistical significance between VIN2 and VIN3 (P=0.44). However the MMP-9 expression was still interesting when vulvar carcinoma was compared with VIN2 (P=0.0006) and VIN3 (P=0.0073). ROC curve (receiver operating characteristic) shows a specificity of 100% and a sensitivity of 86% for carcinoma but the MMP-9 seems less preferment for VIN.

Conclusion: Our results show clearly a correlation between the level of MMP-9 expression and the degree of dysplasia. These results must be confirmed by a larger study.

P6_07

Vulvar cancer in Geneva: a population based study

I. Dellacasa, V. Beffa, I. Neyroud*, M.F. Pelte**, G. Vlastos, J.B. Dubuisson, A.T. Vlastos

Department of Gynaecology and Obstetrics, Geneva University hospital, Geneva Switzerland

(*) Geneva cancer registry, Geneva University hospital, Geneva, Switzerland

(**) Department of pathology Geneva University hospital, Geneva, Switzerland

Inroduction: Vulvar cancers are rare accounting for 1% of women cancer and 4–5% of gynecological cancer. Aim of this study is evaluate the vulvar tumor epidemiology in the Geneva population.

Methods: a 20 years retrospective study (1979–1999) from the Geneva Tumor Register.

Results: 230 patients presented with vulvar (221;96%) or clitoris (9, 4%) disease. Median age is 44 years (21–93). 68%(157) are older than 50 and 14%(31) older than 85. 53%(122) have an in situ and 47% (108) an invasive lesion. Histological types are represented as following: squamous cell carcinoma 54%(124), VIN III 26%(60), Bowen's disease 6%(14), basal cell carcinoma 4%(10), verrucous carcinoma 3%(6), Paget's disease 3%(6) and melanoma 2%(4). 53% (122) of the lesions were diagnosed at the TNM/UICC classification stage 0 and only 7%(16) at stage 3 or 4. Patients less than 50 were diagnosed at stage 0 in 95% of the cases whereas patients older than 50 were diagnosed at stage 0 in only 31% of the cases. Surgery was the treatment of choice in 83%(191) associated with radiotherapy or other treatment in 7%(17). Among the patients with invasive tumor, 31%(31) presented with a second primary tumor from a different localization before and/or after the vulvar cancer. Second primary tumor occurred more frequently in squamous cell carcinoma representing 74%(23) of the patients with multiple tumors. Cervical cancer was associated in few multiple tumor patients (4 cases).

Conclusion: Vulvar cancers are rare tumors involving most of the time patient after their 50th. A better understanding of the natural history of the disease by primary health care physician would permit to diagnose these patients at an earlier stage.

P6_08

Optical biopsy of vulvar lesions

AT Vlastos*, I. Dellacasa*, I. Charvet[1], M.F. Pelte[2], P. Thueler[3], C. Depeursinge[3], J.B. Dubuisson*, P. Meda[1]

**Department of Gynaecology and Obstetric Geneva University hospital, Geneva Switzerland*

[1]Department of Cell Physiology and Metabolism, CMU, University of Geneva, Geneva, Switzerland

Introduction: Disorders of the vulva often escape diagnosis until an advanced stage, which, then, imposes a radical and invalidating surgery. Aim of this study is to propose a procedure which could permit an early, on-line and non invasive detection of vulvar lesions would be extremely useful in preventing these complications.

Methods: We tested an innovative optical method (Optiprobe) which uses a harmless, visible light source for the *in vivo*, on-line detection of minimal alterations in the structure and metabolism of vulvar epithelium.

Results: A group of 20 patients, undergoing gynecologic examination for vulvar lesions, were evaluated by the Optiprobe at sites suspicious of alteration, immediately before biopsies were taken for histological analysis. Adjacent, non-involved sites were measured as controls. Measurements of 1 mm^3 tissue were performed with an optical probe taken into contact with the vulvar epithelium, that contained 1 fiber for tissue illumination and 10 fibers for recording light absorption and scattering spectra (thought to reflect the interaction of chromophores with the incident light and the propagation pathways of this light, respectively). Histology identified 4 cases of high-grade vulvar intraepithelial neoplasia (VIN), 5 cases of vulvitis, and 6 cases of lichen sclerosus (LS). Five other cases did not show obvious alterations.

Conclusion: The optical properties of the VIN cases were significantly different from controls, due to a decrease in the absorption spectra and an increase in the scattering spectra. In contrast, a significant increase in absorption and a decrease in scattering spectra were observed in the cases of vulvitis. In the LS cases, the absorption spectra were normal, whereas the scattering spectra were decreased. We conclude that the Optiprobe provides a useful tool for a rapid, non invasive detection of vulvar alterations, which may be differentiated on the basis of their optical properties. Therefore, the method should contribute to the reduction of the number of biopsies and facilitate the long-term follow-up of vulvar lesions associated with risk of carcinoma.

P6_09

Prevalence and risk factors for cervical dysplasia in teenagers

O. Julen, I. Dellacasa, A.P. Lourenco, I. Navarria, A. Stalberg, G. Vlastos, J.B. Dubuisson, A.T. Vlastos

Department of Gynaecology and Obstetric Geneva University hospital. Geneva Switzerland

Objective: To determine the prevalence and risk factors for cervical dysplasia in a population of teenagers 14 to 19 years old.
Material and Methods: The prospective observational study conducted between January 1997 and December 2001 was proposed to all sexually active adolescents attending our specialized outpatient clinic of gynaecology. We recruited 505 patients who underwent a gynaecological examination including a Pap smear (cytoRich), a hybrid capture test for oncogenic HPV search and a cervical screening for Chlamydia trachomatis by LCX analysis. A questionnaire was used to collect adolescents' socio-demographic and behavioural data.
Results: The median age of our cohort is 17.7 ±1.4 years old. Prevalence of cervical lesions is 9,3%, with 13 ASCUS (2.6%), 33 LSIL (6.5%) and only one case of HSIL. An aspecific inflammation is found in 116 (23%) cases. Of the 34 patients with dysplasia (LSIL or HSIL), Roncogenic HPV is present in 75% and chlamydial infection in 13%. HPV is present in 39% of cases with ASCUS. Among the 438 adolescents presenting with a normal cytology or inflammation, the prevalence of HPV and Chlamydia is 9% and 3% respectively. Chlamydial infections were treated by doxycycline and cervical dysplasia were further evaluated by colposcopy. Preliminary analysis shows that risk factors associated to an abnormal PAP smear are the presence of HPV and inversely the age at first sexual intercourse.
Conclusion: The prevalence of cervical dysplasia found in our studied population is similar to literature data. The age of first sexual intercourse is a major element in the patient history and according to our results a Pap smear should be proposed at the time of a gynaecological consultation. Currently a consensus for follow-up and treatment of cervical dysplasia in adolescents doesn't exist and more studies are needed to validate optimal and cost-effective care. Pathological Pap smear is associated with an important prevalence of chlamydial infection and this infection should be screened in adolescents presenting cervical dysplasia.

P6_10

Risk factors for abnormal cytology requiring colposcopic follow-up during pregnancy

F. Vilmin, P. Bertossa, P. Talla, S. Monnier, I. Dellacasa, G. Gül, J.B. Dubuisson, A.T. Vlastos
Department of Gynaecology and Obstetrics Geneva University hospital, Geneva, Switzerland

Introduction: Cervical cytological abnormalities during pregnancy could be prevented by a preconceptionnel pap smear (cytologic analysis of the cervix uteri). Aim of this study is to evaluate the population at risk for cytological abnormalities during pregnancy.
Material and method: Retrospective study of 70 cases of cytological abnormalities during pregnancy, between 2003 and 2006, followed at our colposcopic clinicin.
Results: Mean age of the patients is 27,5 years (min. 18 years, max. 40 years) 35,7% (25 cases) were diagnosed at the preconceptional consultation. These results will be developped more in detail in the poster. Attention should be given to the fact that 76% (19cases) of LSIL were found in preconceptional consultation, instead of the 59% (26 cases) in postconceptional consultation. The opposite is observed with HSIL. For the histological evaluation, the 52,3% of the patients attending the clinic haven't an histological evaluation during pregnancy , instead of the 16% (4 cases) that attend a biopsy.
We analysed the social, marital status, the nationality and other factors that will be devellopped more in the poster.
The social status seems not to be significant : in our collectif more than 70% of the patients have a low status in both the groups, which corresponds to the status of our population. On the contrary, the patients attendind diagnosy during pregnancy that are not married are the 31,8% (14 cases), data significantly more elevated than in the other group. They are also mainly foreigners (outside the european community) 65,9% (29 cases).
Conclusion: The non-married and precarious status seem to be two risk factors. This study shows the need of a regular screening, including also the migrating population, to reduce the number of cytological abnormalities of the papsmear diagnosticated during pregnancy.

P6_11

Pap smear anormalites during pregnancy

P. Bertossa, F. Vilmin, P. Talla, S. Monnier, I. Dellacasa, G. Gül, J.B. Dubuisson, A.T. Vlastos
Department of Gynaecology and Obstetrics Geneva University hospital, Geneva, Switzerland

Introduction: Cervical cytological anormalites during pregnancy are not very well know. Aim of this study is to evaluate our clinic and our cases.
Methods: Retrospective analysis of prospectively collected data of 70 cases, from 2003 to 2006, collected in our colposcopy clinic.
Results: Mean age is 27,5 years (min 18 year, max. 40 years). 34,3% (24 cases) are smoker. 38,6% (27 cases) have a resolved history of abnormal papsmear previously. The cytological findingsin the beginning of pregnancy are: ASCUS 7,1% (5 cases), LSIL 64,3% (45 cases), HSIL 25,7% (18 cases), ASC-H 2,9% . Histologies are CIN I in 30% (21 cases), CIN II 10% (7 cases), CIN III 18,6% (13 cases). In the 38,7% (27 cases) not biopsy was performed, the Pap smears were ASCUS 7,1% (5 casas) or LSIL 31,3%(cases) (condylomas). At delivery time the cytological diagnosies are: ASCUS 10% (7 cases), LSIL 18,6% (13cases), HSIL 24,3% (17cases) and normal 34,3% (24cases). After delivery, 30 patients presented a LSIL or more and they underwent a LEEP procedure.Tthe histological conisation diagnosis shows CIN I in 36,7% (11cases), CIN II in 23,3% (7 cases), CIN III in 30% (9cases) and a normal pap smear in the 3,3% (1 case). We will discuss the way of delivery in the poster.
Conclusion: As already presented in the literature, this study shows that the 9 months period of pregnancy is short enough to allow women with abnormal pap smear, even HSIL, to have their baby and then benefit of a treatment after delivery.

P6_12

Uterine sarcoma in Geneva: a population based study

I. Dellacasa, G. Colombo, F. Capanna, I. Neyroud*, M. Usel*, M. Abou, G. Vlastos, J.B. Dubuisson, A.T. Vlastos
Departement of Gynecology and Obstetrique. Geneva University Hospital, Switzerland
(*) Geneva Tumor Register. (**) Departement of Pathology. Geneva University Hospital. Geneva, Switzerland

Introduction: Uterine sarcoma epidemiology in the Geneva population.
Method: a 20 years retrospective study (1980–2000) of prospectively collected data from the Geneva Tumor Register.
Results: 56 patients with uterine sarcomas. Median age: 60 years (30–85). 25% (14) are less than 50 years old, 50% (28) between 50 and 69 years old and 25% (14) older than 70 years old. The repartition of the different histological types is the following: Leiomyosarcomas 34% (19), Mullerian mixed tumor (heterologous type) 32% (18), Endometrial stromal sarcomas 20% (11), Carcinosarcomas (MMT of homologous type) 9% (5) and sarcomas 5% (3). FIGO staging: 5% (3) stage 1b and 27% (15) stage 4b;missing 38 cases. Local metastases were found in 53% (30), regional metastases 16% (9) and distant metastases 27% (15) at diagnostic time (2 missing cases). Surgery was the treatment of choice for 89% (50), associated with radiotherapy in 14% (7) and chemotherapy in 20% (10) or both in2% (1). 4% (2) were treated with chemotherapy alone and 2% (1) with radiotherapy. 5% (3) received no treatment. The median follow up was 6 years. 5 year overall survival was 37% (21). 80% died from uterine sarcoma and 20% died of other causes.
Conclusion: Uterine sarcomas are rare cancers, often diagnosed at late stage, and are associated with a poor survival. Due to the difficulty of the diagnosis, a better knowledge of this pathology could improve an early detection and thereby a better treatment.

P6_13

Vulvar Paget's disease in the Geneva population: a retrospective study

G. Gul, I. Dellacasa, I. Neyroud (*), M.F. Pelte (**), A.T. Vlastos
Department of obstetrics and gynecology, (*) Geneva cancer registry, (**) Department of pathology, Switzerland
Department of Gynaecology and Obstetric Geneva University hospital. Geneva, Switzerland

Objective: Our aim was to determine the prevalence, and the recurrence of vulvar Paget's disease in the Geneva population.
Study desugn: A retrospective review of tumor and pathology Geneva registries from 1979 to 2000 is presented. Histologic slide review was performed.
Results: Five patients were found with a median age of 75 years (from 53 to 91). The median duration of pruritus before surgery was one year. Three (60%) underwent simple vulvectomy, one (20%) benefited of wide local excision (WLE) and the last one (20%) refused any treatment. All surgical specimens had free margins. No invasive vulvar Paget's disease was found and none was associated with underlying vulvar adenocarcinoma. No patient experienced recurrence or died from the disease. The median follow up was 3 years. Two (40%) patient had associated dysplasia. One patient was diagnosed with moderate vulvar dysplasia 15 years after WLE in the same area. A second had an HPV negative mild cervical dysplasia and a facial basalioma 3 years before being diagnosed with vulvar Paget's disease. Histology: Vulvar paget disease is characterized by distinctive intraepithelial proliferative cells. These Paget cells present abundant pale cytoplasm and large atypical nuclei on routine hematoxylin-eosin staining. They are distributed singly or in clusters in the epithelium; often into hair follicles and sweat gland ducts. Frequently, the basal cell layer is compacted by overlying Paget cells.
Sialomucin, a nonsulfated acid mucopolysaccharide, is found in cytoplasm of Paget cells. It stains Alcian blue at a pH of 2.5. For histologic differential diagnosis, CEA and keratin immunohistochemical staining can also be done.
Conclusions: Paget's disease of the vulva is extremely rare accounting for less than 1% of all vulvar neoplasm. Association with vulvar adenocarcinoma is reported in 4% but we didn't find any in our study (small number). In the same way, there is no difference of recurrence reported between patients with positive or negative margin specimens. Nevertheless, probably because of our median follow up and small case number, none experienced recurrence in our study. However in elderly patients presenting with vulvar pruritus the diagnosis need to be excluded.

P6_14

Cancerous pathology of the vagina from 1970 to 2006

C. Liberek, A.-T. Vlastos
Clinic of Gynaecology, department of Gynaecology and Obstetrics, Geneva University Hospital, Geneva, Switzerland

Introduction: Vaginal cancer is a rare pathology representing 1% of women's cancers and the 9% of gynaecological cancers. It has a typical bimodal development, that is, before the 7th decade, to VAIN and cancer In Situ and afterwards to invasive cancer.
Aim of this study is to evaluate the prevalence and the prevention of this cancer in our population in a 36 year period, between 1970 and 2006.
Method: Retrospective analysis of VAIN 3, lesions In Situ and invasive vaginal cancers according to the prospectively collected data of the tumor registry of Geneva.
Results: 117 vaginal cancers were reviewed, 40 cases of VAIN III, 13 cases of In Situ, 64 cases of invasive cancer. Mean age of the patients is respectively 53,3/57,6 and 64,2 years. Difference of ages between the preinvasive and invasive lesions is significant.
The predominant histological type is the epidermoide tumor with 83,8% (98 cases) followed by melanoma 4,3% (5 cases), adenocarcinoma 3,4% (4 cases) and tumor with clear cells 2,6% (3 cases). The stoppage of using diethilsilberstol determined the decreased prevalence of the last mentioned tumors. Diagnosy has made after consultation for the presence of a vaginal symptomatology in 36,8% and in 22,2% during a gynaecological check-up. If we consider only the vaginal invasive cancers, the 93% of the cases is diagnosed after gynaecological symptomatology, which is significant. Among non-invasive lesions only the 7% is diagnosed after symptomatology, instead of the 47,2% of cases diagnosticated after a gynaecological check-up. After diagnosy of vaginal cancer, the hospitalisation is the first choice (77,3% of the cases), while the need in case of VAIN or In Situ is a gynecological consultation (67,6% of the cases). The relation between the ages, diagnostics, stages and survival will be argued in the poster.
Conclusion: Vaginal cancers is a rare tumor worst knowed required a better screening that is just now insufficient. A detailed analysis of cases allows that is necessary to sensibiliser the gynaecologist, to improve the screening at early stages and thus the follow-up of the patients.

P6_15

Sentinel node detection with patent blue dye in early cervical cancer: results in 32 patients

S. Pessini
Universidade Federal de Ciencias da Saude de Porto Alegre and Complexo Hospitalar Santa Casa, Brazil

Introduction: Sentinel node (SN) detection is a minimally invasive surgery technique, because prevents extensive lymph node dissections for some superficial tumors. In early cervical cancer, pelvic node metastasis is the most significant prognostic factor, and SN detection techniques are on study. The hypothesis is: if SN is negative, the pelvic nodes are negatives.
Objective: To analyse the feasibility of sentinel node (SN) identification using patent blue dye in patients undergoing vaginal-laparoscopic surgery for cervical cancer.
Material and Methods: From december 2000 to august 2006, 76 early cervical cancer patients were submitted to a laparoscopy with the intention of primary surgical treatment (70 to radical vaginal-laparoscopic hysterectomy and 6 to radical trachelectomy). Sentinel node detection was performed in 46 consecutive patients without vegetating tumor. Sentinel nodes were detected using a solution of 2 ml patent blue dye and 2 ml saline, and 1 ml was injected in each cardinal point of the cervix. One or more SN were detected and removed for pathological assessment during the pelvic laparoscopic lymphadenectomy. If positive, the surgery was aborted; if negative, the lymphadenectomy was completed. A form was filled out with the following data: the time of injection, the time of detection, the side and the localization of SN.
Results: SN were detected in 32/46 patients, with a detection rate of 69,6%. Of the 70 lymph nodes detected, 21 (30%) were identified in the obturador area; 10 (14,3%) in interiliac; 9 (12,8%) in external iliac; 9 (12,8%) in parametrium; 5 (7,1%) in commom iliac and 16 (22,9%) were in iliac region without specification. Thirteen patients (40,6%) had bilateral SN: six in same region, right and left, and seven in different area. On the 33 patients, two had positive sentinel nodes and the surgeries were aborted. A false negative SN occurred in one case. No complication occurred.
Conclusions: In this serie, the SN detection rate with patent blue was 69,6%. In the literature, the rates are from 15,4% to 100%. This is not an expensive technique and can help some patients with early cervical cancer, identifying women in whom radical surgery can be avoided. It's important to consider that the SN detection techniques are in study, yet.

P6_16

Total Laparoscopic Surgery in Endometrial Cancer: Operating Data and Five Years Follow-up

Gomes-da-Silveira GG, Cruz Nervo C, El Beitune P
Santa Casa Hospital—Porto Alegre—Brazil

Objective: Avoiding longitudinal laparotomy in patients with stage I endometrial cancer to reduce postoperative morbidity allowing quick hospital discharge and return to daily activities.
Patients: Patients with endometrial cancer clinically restricted to the uterine body, with no contraindication to laparoscopic surgery and uterine dimensions allowing vaginal removal of the uterus in one single piece.
Method: This was a prospective not controlled clinical trial. Surgical staging was made by laparoscopy, with peritoneal washings, abdominal and pelvic cavities exploration and total extra-fascial hysterectomy with bilateral salpingo-oophorectomy. Pelvic lymphadenectomy and/or radiation therapy are carried out according to FIGO criteria.
Results: From April 2001 to December 2003, sixteen patients with ages ranging from 53 to 77 years (mean, 64) and BMI ranging from 20 to 35 (mean, 30.5) were trated. Stages were Ia (3), Ib (10) and IIa (3). Pelvic lymphadenectomy was performed in 8 cases. Surgery duration varied between 56 and 230 minutes (mean, 123). Blood loss was of 50 to 250 ml (mean, 112). No blood transfusion was necessary. All patients were discharged from hospital in less than 48 hours after surgery. The mean follow-up (till May, 2009) was of 6.3 years. There was 1 recurrence in the vagina lower third, in a patient with IIa stage , who did postoperative radiation and brachytherapy (disease free survival 94%, total survival 100%).
Conclusion: Laparoscopic staging of the endometrial cancer allowed reaching the surgical goals with less postoperative morbidity and quick return to daily activities, without delaying adjuvant radiation therapy. Total survival and disease free survival data were similar to classic laparotomy, when compared to the FIGO Annual Report.

P6_17

Laparoscopic approach in endometrial cancer. A review of our experience

A. Zapico, E. Martínez, P. Fuentes, P. Garbayo, F. Arnanz, J. González, A. Couso
Universitary Hospital Príncipe de Asturias. School of Medicine. Alcalá University. Madrid. Spain

Objective: To evaluate the different surgical approaches, advantages and morbidity in patients with endometrium cancer.
Design and methods: A retrospective study between 1996 and 2008, over 201 consecutive patients with endometrium cancer . Two groups were defined, whether the laparoscopic (LPS) or laparotomic (LPM) approach were used. We have studied different items such as epidemiological data, diagnosis procedures, 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 15.O.
Results: Mean age was 62,76±0,69 (36–86) years and mean BMI 31,43±0,46 (17,57–52,20) kg/m². No differences were observed. Endometrial risk factors were seen in 103(51,2%) patients . The initial surgical access was LPS in 138 patients (68,7%) and LPM in the remaining 63 cases (31,3%). Lymphadenectomy was possible in 41 (61,07%) of LPM group vs 127 (92,01%) cases in LPS group. Conversion into laparotomy was necessary in 15 (10,9%). Operating time time was longer ($p<0,01$) for LPS 154,07±3,85(50–285) vs LPM 142,06±5,99 (45–270) minutes. Hospital stay was shorter for LPS 6,13+0,67(2–65) vs LPM 7,76±0,68(3–33) days ($p<0.05$). Postoperative complications were 21(15,21%)LPS vs 18(28,57%) LPM group. Haemoglobin balance was: LPS 2,89±0,13(0,4–8,8) vs LPM 3,16± 0,2(0,4–7,8 gr/dl.$p<0.001$ Global transfusion rate was 9,45%, no differences were achieved between groups. Nodes collected were LPS 14,06±1,44 (2–22) vs LPM 13,52+2,2(2–21) ($p=0.47$). Survival rate was similar ($p=0.29$).
Conclusions: Laparoscopic approach is feasible in endometrium cancer. In addition succesful laparoscopic staging shows lower

hospital stay and morbidity. In our hospital laparoscopy approach is considered the first option for access in endometrium cancer.

P6_18

Analysis of conversion rate in endometrium cancer laparoscopic approach

E. Martínez, A. Zapico, P. Fuentes, H. García-Briz, C. Canseco, D. Martínez, C. Medina
Universitary Hospital Príncipe de Asturias. School of Medicine. Alcalá University. Madrid. Spain

Objective: To analyze the conversion rate of laparoscopic approach in endometrium cancer.
Design and methods: A retrospective study between 1996 and 2008, over 138 consecutive patients with endometrium cancer and laparoscopic (LPS) approach . We selected all the LM (Conversion into laparotomy needed) 15(10,86%). We have studied different items such as epidemiological data, medical previous pathology, conversion causes and complications postoperative rate. Statistical analysis was done using SPSS 15.0.
Results: Mean age was 60,47+3, 42 (39–80) . Mean BMI (body mass index) was 30,56+2,51 (17,57-47,02). Previous surgical risk factors were seen in 11(73,33%). Endometrial risk factors or medical diseases (like Hypertension, Diabetes Mellitus, Hormonal therapy , Tamoxifen, etc) were found in 9 (60%) patients while in the remaining 2 (13,3%) patients previous surgery has been performed. Laparotomic conversion was done in 15 patients. Anesthesical problems or hypercapnia were due in 8(53,33%), Minor vessel injury was found in 2(13,3%), laparoscopic surgical unsolvable pitfalls (most of them adherencial previous pathology) were found in 5(33,33%). Postoperative rate was 8(53,33%), 5 wound infection and 3 medical problems.
Conclusions: Medical previous conditions, and high BMI are some of the most important factors for the sucessfull laparoscopic results. Incontrolable hypercapnia and anesthesical problems have been the first causes of conversion rate. Postoperative complications rate is also higher because of the medical problems , longer hospital stay and wound infection. For improving surgical results we should try to avoid conversion to laparotomy.

P6_19

Robotic-assisted radical trachelectomy

Chel Hun Choi, Chul Jung Kim, Yoo-Young Lee, Tae-Joong Kim, Jeong-Won Lee, Byoung-Gie Kim, Duk-Soo Bae
Department of Obstetrics & Gynecology, Samsung Medical Center, Sungkyunkwan University , Rep. of Korea

Radical trachelectomy is an established method to preserve fertility in early cases of cervical cancer. And it is usually performed vaginally despite the initial use of laparoscopy for the lymphadenectomy. However, this technique requires advanced vaginal surgery skills not commonly acquired. Here we describe the surgical technique of a robot-assisted laparoscopic radical trachelectomy.
A 30-year-old woman, gravida 0, para 0, desiring fertility preservation was given the diagnosis of invasive squamous cell carcinoma with a tumor size of 2.5 cm. The patient was treated with robotic-assisted pelvic lymphadenectomy and radical trachelectomy.
Following the dissection and transection of the parametrium, circumferential colpotomy is performed laparoscopically (robotic). Then, uterine cervix is transected transvaginally after the removal of robot docking. Cervical cerclage and vaginal closure are also performed vaginally.
We hope robotic-assisted radical trachelectomy will become an option for select women with early-stage cervical cancer who desire fertility preservation

P6_20

Video-Assisted Thoracoscopic Surgery (VATS) for recurrent ovarian cancer with a metastatic mediastinal mass

Kyung-Do Ki, Seon-Kyung Lee
Department of Obstetrics and Gynecology, East-West Neo Medical Center, Kyung Hee University, Seoul, Korea

Background: Although primary cytoreductive surgery for epithelial ovarian cancer is well accepted as the cornerstone of initial management, the benefits of cytoreductive surgery for patients with recurrent ovarian cancer remains unclear. Furthermore, no consensus has been reached concerning treatment strategies for recurrent epithelial ovarian cancer.
Case Report: A 29-year-old woman was admitted to our hospital due to suspicion of recurrent ovarian cancer. Four years previously, she was first diagnosed with an ovarian papillary serous adenocarcinoma stage IIIc. She underwent primary debulking surgery followed by six cycles of adjuvant chemotherapy, which consisted of paclitaxel (175 mg/m2) and carboplatin (AUC=5). A physical examination revealed a palpable inguinal mass and multiple enlarged pelvic lymph nodes. In addition, a mediastinal mass with a well-defined margin was visualized by chest CT. Video-assisted thoracoscopic surgery (VATS) was utilized for the cytoreduction of the recurrent ovarian cancer with solitary mediastinal metastasis.
Results: At the 20-month follow-up the patient was without evidence of disease.
Conclusion: VATS may be attempted as a component of secondary cytoreductive surgery for the optimal debulking of macroscopic disease, and should be considered a viable option for the treatment of recurrent ovarian cancer with mediastinal metastasis.

P6_21

Breast conservation surgery

Jose F. Rinaldi
Faculdade de Ciências Médicas da Santa Casa de São Paulo, Brazil—Responsible for Breast Unit; Casa di Cura Villa Nova" (Responsible for Breast Unit) Florence, Italy

Breast conservation surgery is a valuable component of early breast cancer treatment, with a survival outcome comparable to that of radical procedures. Despite the acceptance that most partial breast resections can be managed with primary closure, the aesthetic outcome may be unpredictable and occasionally achieve an unacceptable result. Among the main reconstructive options, local flaps, reduction mammaplasty, and distant flaps are the most commonly used techniques.
Contradictory data have been reported on the outcome of the reconstructive procedures, depending on the breast volume and

tumor location. In addition, the decision is usually determined by the surgeon's preferences and the size of the defect in relation to the size of the remaining breast. Immediate breast conservation surgery reconstruction is challenging for oncologic and plastic surgeons, demanding ability in reconstructive techniques and a sense of volume and symmetry. It has been my impression that approach has evident good qualities, and there is no doubt that this concept will possibly become standard practice in the future. Surgical planning should include aspects of the breast and defect and chiefly address individual reconstructive requirements, enabling each patient to receive an individual "custom-made" reconstruction.

P6_22

Implementing laparoscopic techniques in gynecologic oncology. the experience of a tertiary care center

S. Becker, T. Fehm, R. Rothmund, K. Gardanis, R. Hornung, W. Zubke, D.Wallwiener, E. Solomayer
Tübingen University Women's Hospital, Germany

Background: Minimally invasive surgical techniques have fundamentally altered the options available to gynecologic surgeons performing adnexal surgery, hysterectomies or pelvic reconstructive surgery. Already, in many institutions, more than 1/3 of all gynaecologic interventions are performed laparoscopically. Gynecologic oncology remains the last frontier for the widespread implementation of laparoscopy. We describe the systematic introduction of these pioneering techniques in the treatment of endometrial and cervical cancers in a tertiary care center.
Material and Methods: Over the course of four years, a total of 263 patients with cervical and endometrial cancer were treated laparoscopically at the University Women's Hospital in Tübingen. During this time, five different physicians performed all surgeries. Patient data, tumor specific data as well as peri- and postoperative events, including complications and follow-up were recorded.
Results: Between 2005 and 2008, 72 laparoscopic Wertheim Operations, 150 laparoscopic total hysterectomies for endometrial cancer (including lymphonodecomies), 31 laparoscopic lymphonodectomies for the completion of of endometrial cancer therapy as well as 10 trachelectomies/laparoscopic lymphonodectomies were performed The average time of surgery during this time span was 249, 212, 160 and 169 minutes respectively. Blood loss was 100 ml on average (range 0–500 ml). Average blood per type of surgery was 135, 93, 55 and 75 ml respectively. A total of 17,1 pelvic lymphnodes were harvested (19,9;16,3;16,9;10,8). Positive pelvic lymphnodes were detected in 9,1% of cases (15,3; 3,3%; 15,8%; 0%). Complications occurred in 17% of patients (22% for Wertheim-patients, 13,3% for endometrial cancer patients). Complications ranged from minor (urinary tract infection) to moderate (postoperative arrythmia, transient paresis to severe (vascular lesions, fistula formation).
Conclusion: Laparoscopic surgical techniques can be introduced in gynecologic oncology over a comparably short period of time. The presented numbers give a realistic assessment of the possibility of widespread application of techniques which too often remain confined to super-specialized individual surgeons. Particularly endometrial cancer and very early stage cervical cancer appear to be particularly suited for laparoscopy. Complications rates are comparable or lower than in the open surgery group.

P6_23

Vulval lesion: A multidisciplinary Approach

B. Thirumagal, J. Shahid
Alexandra hospital, Redditch, UK

Objective: It is not uncommon to encounter diagnostic dilemmas in vulval lesions. Vulval Crohn's is a rare condition in gynaecological practice. It could be due to the direct extension of perineal lesions or metastatic. We are presenting a case of abnormal vulval lesions due to Crohn's disease without evidence of intestinal involvement.
Materials and methods: A 29 year old Asian woman was referred to a Gynaecologist 6 years ago for an unusual vulval lesion. At review, she was 33 weeks pregnant and complained of dyspareunia, vulval irritation, pain and swelling. She had no history of sexually transmitted diseases, or urinary or gastrointestinal symptoms.
Examination showed vulval erythema, oedema and ulceration. She was referred to genito urinary medical clinic and the investigations for Chlamydia, viral infections, syphilis and immunology screen were negative. She underwent a Caesarean section for IUGR and vulval ulceration at 39 weeks.
She had a biopsy after delivery which showed epitheleoid granuloma. The acid fast stain was negative. There was no endarteritis or micro abscesses or Donavon bodies. A diagnosis of Crohn's disease was made. She was initially treated with prednisolone and doxycycline and then cyclosporine and azathioprin. She had another 3 pregnancies while on the treatment, all delivered by Caesarean section for various obstetric reasons. During her 5th pregnancy in 2006, she opted for termination at 9 weeks. Unfortunately, she required hysterectomy for uncontrollable bleeding due to uterine perforation at the time of termination. She was recently referred to the Gynaecologist again and examination this time showed bilateral hypertrophic labia minora attached by thin strings of tissue to clitoris. Fenestrations in the labia majora were also noted. (Pictures available) She underwent refashioning of the vulva and recovered very well. She is being followed up by the dermatologist. Recent literature suggests that Infliximab is a useful drug. She failed to attend for further Gynaecology follow up and also for GI investigations including colonoscopy.
Conclusion: Vulval Crohn's is a rare condition and it can manifest without intestinal symptoms. Multidisciplinary approach is paramount and early biopsy is advisable to avoid delay in diagnosis. Crohn's disease should be considered as a differential diagnosis of vulval lesions at any age. Literature reviewed for similar cases and the summary is available.

P6_24

Robot assisted laparoscopic transperitoneal para—aortic lymphadenectomy in the management of advanced cervical carcinoma

Michel Degueldre*, Maxime Fastrez*, Jean Vandromme*, Pascale George*, Serge Rozenberg
**Obstetrics and Gynecology Department, S[t] Pierre University Hospital, Brussels, Belgium*

Objectives: Adequate staging of advanced cervical cancer is essential in order to optimally treat the patient. FIGO clinical staging, imaging techniques such as CT SCAN, MRI and PET sometimes underestimate the extension of tumors. The presence of para—aortic lymph node metastases in advanced cervical cancer identifies patients with poor

prognosis who need to be treated aggressively. Laparoscopic para—aortic lymph node dissection is now proposed as a diagnostic tool in many guidelines. We evaluated the feasibility and safety of a robot assisted laparoscopical transperitoneal approach to para—aortic lymph node dissection.

Materials and methods: Eight patients with advanced cervical carcinoma who were eligible for primary pelvic radiotherapy combined with concurrent cisplatin chemotherapy or pelvic exenteration underwent a pre treatment robot assisted transperitoneal laparoscopic para—aortic lymphadenectomy.

Results: We isolated from 1 to 38 para—aortic nodes per patient and had one para—aortic node positive patient who was treated with extended doses of pelvic radiotherapy. We did not encounter any major complications and post operative morbidity was low.

Conclusions: Robot assisted transperitoneal laparoscopic para—aortic lymphadencetomy is feasible and provides the surgeon with greater precision than classical laparoscopy. Larger prospective multicentric trials are needed to validate the generalised usefulness of this technique.

P6_25

Uterus tumor operative treatment experience

V. V. Ponomarev, V. V. Artyushkov, S. F. Gricenko, E.V. Bashirov, M.E.Vengerenko

Clinic Center For Women Civic Hospital №2 Of Municipal Public Health Institution Krasnodar, Russia

Objective: The traditional laparotomy, laparoscopic and vaginal access are still the basic accesses for uterus tumor operative treatment on the contemporary stage of the development of the operative women diseases treatment.

Materials and methods: In Krasnodar Clinic Center For Women №2 from 1999 till 2008 have been carried 7281 hysterectomies. The specific weight of surgical interventions carried with laparotomic way was 93, 2% in 1999 and 31% in 2008, through vaginal access 2, 4% in 1997 and 38% in 2008. The indication for surgical intervention was:

Uterus myoma (61,5%)

Endometrial hyperplasia (17%)

Adenomyosis (11%)

Genital prolapse (6%)

Uterus and adnexas pernicious tumor (4, 5%)

The age of women is from 41 till 77 years. All the women were subject to survey hysterescopy with separate diagnostic uterus curettage, in certain cases—cervical biopsy

In cases of conjunction of benign uterus tumor together with cervical pathology the preference was given to total hysterectomy.

The average duration of surgery was 35 to 160 min with all the ways of access. The general bloodloss was from 50 till 400 ml.

The preference way of accesses were chosen vaginal and laparoscopic. The surgery carried with laparotomic method in case when the uterus was more than 18 weeks (diametric size more than 120 mm), on having two or more laparotomies in anamnesis, malignant diagnosis hystologically confirmed, and in certain cases the will of the woman. The time staying in hospital was 8–10 days after using the laparotomic access, 6–7 days after using vaginal access, 3–5 days after using laparoscopic access.

Results: The following complications were reported: by using laparoscopic access—one intrasurgical trauma of ureter, two cases of peritoneal bleeding in early postsurgical period. By vaginal access—two cases of vaginal—cyctocele fistula and two cases of peritoneal bleeding in early postsurgical period. After using laparotomy—eight cases of peritoneal bleeding, two traumas of intestines with evident peritoneal subtend adhesion process, three cases of adhesion intestines obstruction.

Conclusions: Thus, the development of endoscopic operation technique and methods, surgeons experience accumulation let to enlarge the quantity of hysterectomies carried with laparoscopic access. This let us make a total peritoneal examination, to exclude outward genital endometriosis, adhesion process, to cut time of woman staying in hospital to 3–5 days.

P6_26

Extraperitoneal laparoscopic approach for gynaecological cancer staging: Does it realiably assess para-aortic lymph node status?

Miren Arrue Gabilondo, Olatz Lizartza Ormaetxea, Larraitz Ibañez Garikano, Leire Goyeneche Lasaga, Mª Luisa Avila Calle, Ruben Ruiz Sautua

Hospital Donostia, Spain

Objective: Laparoscopic lymphadenectomies are safe and feasible in gynecological cancers. It has been published that extra-peritoneal access is superior both to a transperitoneal laparotomy and laparoscopic approach, largely due to the absence of intraperitoneal adhesion formation and bowel complications. However some authors doubt about the reliable assessment of para-aortic nodes via extraperitoneal endoscopy. The aim of this study was to evaluate the accuracy of the extra-peritoneal endoscopic approach to reliably assess the para-aortic lymph node status in the gynecologycal oncologycal patients.

Material and methods: This is a retrospective study from October 2007 through February 2009. The study group included all the women who underwent para-aortic lymphadenectomy by extra-peritoneal laparoscopic access since this began to be done in our hospital. We included patients with endometrial, ovarian and cervical cancers that required para-aortic lymphadenectomy. The results of the staging of this group, named group 1, were compared with group 0, which included the women who underwent staging via laparotomy.

Results: In 20 month period of time extraperitoneal laparoscopic para-aortic lymphadenectomies were done in 29 patients and were compared with19 patients with staging via laparotomy. The mean age of the women in group 1 was 65.1 years (range: 32-85) and the mean BMI 28.4, while in group 0 women were 56.5 years in average (range: 22-79) and their mean BMI was 25, significantly lower than in group 1. The mean number of nodes dissected via endoscopy was 10.3 (range: 4-22 nodes), while in group 0 was 4.3 (range: 1-13 nodes), this last, significantly lower.

The laparoscopic approach identified 17 positive para-aortic lymph nodes, corresponding to 4 patients (13.7%), whereas there were found 4 positive nodes of two patients (10.5%) by via laparotomy. In none of the 29 cases of the extraperitoneal endoscopic approach was needed reconversion to laparotomy.

Conclusions: We conclude that in this cohort we obtain a higher number of nodes when the lymphadenectomy is done by extraperitoneal laparoscopic approach. The endoscopic access is safe, feasible and allows a reliably staging in gynaecological cancers, also in heavier women. The extraperitoneal laparoscopic technique is necessary in gynaecological oncology because of its accuracy in the assessment of para-aortic lymph nodes, and consecuently in the planning of the adyuvant therapy.

P6_27

Systematic or selected pelvic and para-aortic lymphadenectomy in patients with endometrial cancer?

Miren Arrue Gabilondo, Leire Goyeneche Lasaga, Larraitz Ibañez Garikano, Olatz Lizartza Ormaetxea, Mª Luisa Avila Calle, Ruben Ruiz Sautua
Hospital Donostia, Spain

Objective: The surgical staging of the endometrial cancer constitutes a paradigm nowadays. There are some authors that advocate for systematic pelvic and para-aortic lymphadenectomy whereas others do not support this theory by mean of they consider para-aortic lymph node dissection only in patients with positive pelvic lymph nodes. The aim of this study was to analyze the incidence and localization of the positive lymph nodes, both pelvic and para-aortic ones, in patients with endometrial cancer of our hospital.
Material and methods: This is a retrospective study from October 2007 through May 2009. We recruited all the women who underwent for surgery for endometrial cancer, but selected only the patients in whom staging with pelvic and para-aortic endoscopic lymphadenectomy was done.
Results: We included 43 women in the study group. Mean age was 66.5 years (range: 39–85) and mean BMI 28.8 (range:21–38). The anatomopathological study of the lymph nodes indicated that there were only two patients with positive pelvic lymph nodes: 2 positive nodes in each patient out of 9 an 11 dissected respectively. However, we found that there were three patients that had positive para-aortic lymph nodes in the A.P. study (): one of those had also positive pelvic nodes, but the remaining two patients had no affected pelvic lymph nodes. Thereby these last two patients would have been substaged cases if no para-aortic lymph node dissection had been done.
Conclusions: The literature reflects that the incidence of the cases with positive para-aortic lymph nodes together with negative pelvic lymph nodes is only 2%. In our cohort the incidence appears to be higher, 4.6%. Thereby, we have decided to perform a systematic pelvic and para-aortic lymphadenectomy in all high risk patients.

P6_28

Ultraconservative fertility-sparing surgery in early cervical cancer

A. Ditto, E. Solima, F. Hanozet, F. Martinelli, B. Grijuela, R. Fontanelli, F. Zanaboni, F. Raspagliesi
Gynecologic Oncology Unit, Fondazione IRCCS Istituto Nazionale dei Tumori. Milano, Italy

Objective: To determine feasibility and safety of a less radical fertility preserving surgery in early cervical cancer.
Materials and methods: Sixteen patients (FIGO stage 6-IA2, 10-IB1) selected on basis of favorable cervical tumor characteristics and the desire to maintain fertility underwent laparoscopic complete pelvic lymphadenectomy as first step of treatment, followed by large cone in patients with negative nodes. Obstetrical and oncologic outcomes were evaluated.
Results: Eight cases were squamous cell cancer and other 8 adenocarcinoma. The mean age was 34 (29–40ys). The FIGO stage IA2 was 6 (37.5%) and stage IB1, 10 (62.5%). The grading was G1: 12.5%, G2: 62.5%, G3: 25.0%. The LVSI was positive in 12.5% of patients. The average of nodes removed was 29 (Range: 24-45). Two patients had positive nodes (12.5%). In these cases, Type III nerve sparing radical hysterectomy was performed. Two patients decided, in spite of the negative nodes, to drop out from the protocol and they performed type II radical hysterectomy. Twelve out of 16 underwent large Cone. The mean operative time for pelvic lymphadenectomy was 60 minutes. We no had intra-operative complications. The postoperative stay was 4 days (range: 3–6). Early complication: 1 Hematoma. Late complication: 1 cervical stenosis and 1 Lymph cyst. On final pathology assessment the parametrium and the vagina in the 4 patients underwent RH were negative. The mean diameter of cone was 25 mm, range: 18–38 mm; the mean endocervical depth was 15 mm, range 7–27 mm; the free surgical margins were > 5 mm in 11 patients and <5 mm in 1 patients.
Conclusions: After a median follow-up of 25 months (range 4–71) all patients were NED. The 2 patents with positive nodes underwent adjuvant radiotherapy there was no evidence of the disease 16 and 22 months after treatment. About pregnancy outcome, 12 patients saving fertility and 10 wishing pregnancy, 3 women became pregnant and 2 women delivered 2 children (one in 35 weeks, one in 38 weeks), and 1 abortion at the 19 weeks due to chorioamnionitis.

P6_29

Can selected cervical cancer women benefit from the minimally invasive approach without compromise survival?

S. Pessini, G.P.G. Silveira, M. Loureiro, M. Spader, M.C. Barcellos-Anselmi
Faculdade Federal de Ciencias da Saude de Porto Alegre e Complexo Hospitalar Santa Casa de Porto Alegre, Porto Alegre, Brazil

Objective: To determine 2 and 5-year survival in early cervical cancer patients treated by laparoscopic-vaginal radical hysterectomy (LVRH) and to compare with historical serie by radical abdominal hysterectomy (RAH). To determine the average of lymph nodes at the laparocopic pelvic lymphadenectomy and to compare with the historical serie by laparotomy.
Material and method: Concurrent cohort study (group 1) and retrospective case control study (group 2).
Patients and Methods: Patients with cervical cancer FIGO stage Ia2, Ib1 and IIa (≤2 cm) submitted a LVRH, from 2001 to 2007 (group 1, n=64), and submitted a RAH from 1995 to 2007 (group 2, n=108). The laparoscopic time consisted of pelvic lymphadenectomy, cauterization and section of uterine vessels, preparation of vesical and pararectal spaces, parametrectomy and salpingectomy. The lymph nodes were sent separeted, left and right sides, to the pathologist. Age, tumor size, hystologic type, number of lymph nodes, metastasis and complications were registered.
Main outcome measures: survival and average of lymph nodes.
Results: The 2 and 5 years-survival in group 1 patients were 98 and 96,2%, and, in group 2, were 89,8 and 84,3% (p=0,09 and 0,2). General 2 and 5 years-survival were 92,8 and 88,3%. The average of lymph nodes by laparoscopy was 23,1 and, by laparotomy, was 21,7.
Conclusions: The 2 and 5-year survival of cervical cancer patients treated by LVRH were similar to patients treated by RAH. The average of lymph nodes by laparoscopy was greater than laparotomy, without significant difference.

P6_30

Burkitt lymphoma presenting as a pelvic mass

Evelin Pinto, Marta Osório, Carla Ferreira, Ana Nogueira, Graça Ramalho, João Gonçalves
Centro Hospitalar de Vila Nova de Gaia/Espinho, EPE, Portugal

Objective: Burkitt lymphoma (BL) is a highly aggressive B-cell neoplasm that represents less than one percent of adult non-Hodgkin lymphomas.
Materials and method: A 19-year-old nulliparous woman presented with abdominal swelling and pain, severe asthenia and dyspnea. She also had anorexia, weight loss, fever and night sweats for two months. Pleural effusion was detected through x-rays and a huge mass arising from the left side of the pelvis was found by abdominal and gynecological examinations. Pelvic ultrasound and CT scan showed a solid, multinodular tumor, retrouterine, occupying all pelvis and multiple retroperitoneal and para-aortic adenopathies and nodules over the peritoneum that suggested peritoneal seeding from an adnexal tumor. CA 125 was 3614 U/mL. Several biopsies were made by diagnostic laparoscopy. The pathological exam revealed Burkitt lymphoma. Pretreatment evaluation excluded bone barrow and central nervous system involvement and the patient was treated with chemotherapy with complete remission and no evidence of disease recurrence at 2 years of follow-up.
Results: Although BL is a rare condition, it must be distinguished from other tumors presenting as abdominal or pelvic masses and laparoscopic surgery can be used as a minimal invasive procedure for its diagnostic.
Conclusions: BL is one of the fastest growing malignancies but for patients with limited disease a long term survival can be achieved with combination chemotherapy.

P6_31

Laparoscopic surgery in the management of choriocarcinoma. A case report

A. Moreno Collado, S. Aniorte Martinez, G. Higueras, M. Molina Planta, F. Ruiz Ripoll, J. Gilabert Estellés
La Fe Hospital, Valencia, Spain

Objective: We report a case of a 41-year-old woman, gravida 3, para 1, miscarriage 2, consulting for metrorrhagia 6 months after the last miscarriage.
Materials and methods: The echography showed a heterogeneous endometrium of 12 mm and the laboratory test revealed severe anemia (hemoglobine: 7.6 g/dl) and ßHCG of 23.592 mIU/ml, so she was admitted for study an a curettage and a transfusion of 4 units of blood were performed emergently. The results of Pathological Anatomy reported choriocarcinoma so she was transferred to the Gynecological Oncology Unit and a complete study was performed: ßHCG was 72.710 mIU/ml, the cranial CT was normal but the chest radiography detected lung nodules (pulmonary metastasis). According to the FIGO 2000 score, which was under 6 (low-risk disease), and the presence of active bleeding that required repetitive transfusions, a laparoscopic hysterectomy was performed as primary management of this disease, before the chemotherapy treatment. To avoid the dissemination of malignant cells this surgery was performed without uterine manipulation and the Fallopian tubes were coagulated and uterine arteries were ligated at their origin prior to hysterectomy.
Results: 48 hours after surgery the patient presented with a strong headache and the cranial CT showed right intraparenchymal parieto-temporal-occipital hemorrhage requiring an urgent craniotomy to evacuate the hematoma. The CT and Angio-CT 12 days later, reported an oedema with no evidence of arterio-venous malformations or any presence of metastatic injury. Chemotherapy with methotrexate was initiated later at the Intensive Care Unit under mechanical ventilation. 17 days later the patient recovered consciousness with a left hemiplegia. High-risk chemotherapy (EMA-CO) was initiated later to prevent the disease progression, with favourable outcome and disappearance of the disease. The incorporation of hysterectomy into the primary management of malignant gestational trofoblastic disease decreases chemotherapy requirements for low-risk patients.
Conclusions: Laparoscopic hysterectomy is a good alternative to reduce the morbility of this technique allowing rapid instauration of chemotherapy.

P6_32

Extraperitoneal laparoscopic para-aortic lymph node dissection

Leire Goyeneche, Ruben Ruiz Sautua, Olatz Lizartza Ormaetxea, Larraitz Ibañez Garikano, Miren Arrue Gabilondo, Maria Luisa Avila Calle
Hospital Donostia, San Sebastian, Spain

Objective: The aim of this study is to review our first 42 consecutive cases of para-aortic lymphadenectomy through a retroperitoneal laparoscopic access.
Methods and materials: Our review include 42 women with gynecological cancer undergoing laparoscopic extraperitoneal para-aortic lymphadenectomy between May 2008 and June 2009 in San Sebastian´s Hospital, Spain.
Results: The lymphadenectomy was performed in all cases and obtained an average 9.62 nodes (range 4–22). Positive nodes were found in 5 patients (11.9%). The mean BMI was 28.35 (range 19–38). The postoperative stay was 4.48 days (range 2–13). The intraoperative complications were resolved without the need for laparotomy.
Conclusions: Laparoscopic extraperitoneal paraaortic lymphadenectomy is feasible with minimal complication, acceptable nodal yield and short hospital stay. It is a safe and effective procedure and it needs a learning curve wich is considered by some authors in 15 cases. The ability to perform this procedure is an important skill in the surgical armamentarium of the gynecologic oncologist.

P6_33

Endometrium adenocarcinoma IB: hysteroscopic morphology and epidemiology

Leire Goyeneche, Borja Rivero, Mikel Gorostidi, Miren Arrue
Obstetrics and Gynecology department, Hospital Donostia, San Sebastián, Spain

We make a descriptive and morphological review of all hysteroscopic images with final diagnosis of Adenocarcinoma IB since 1st of january 2004 to 31th december 2008 in Obstetrics and Gynecology department, at Donostia Hospital in Spain.

P6_34

Extraperitoneal versus transperitoneal approach for laparoscopic paraaortic lymphadenectomy

Larraitz Ibañez, Miren Arrue, Olatz Lizartza, Leire Goyeneche, Marisa Avila, Ruben Ruiz
Hospital Donostia, Spain

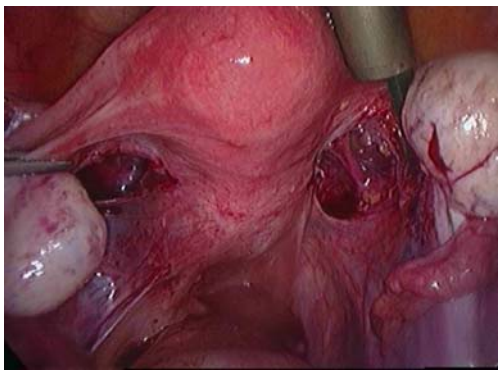
Objective: To describe our experience in the performance of laparoscopic paraaortic lymphadenectomy (LPL) and compare results and complications of extraperitoneal and transperitoneal approaches.
Materials and methods: Women undergoing LPL between November 2007 and June 2009 in our tertiary referral hospital were eligible for inclusion in this retrospective cohort.
29 women underwent an extraperitoneal LPL and 14 women a transperitoneal LPL procedure.
37 of the procedures were due to endometrial cancer, 2 to ovarian cancer, 2 to advanced cervical cancer and 1 to falopian tube cancer.
Results: In the extraperitoneal approach group, the mean age was 65 years and the mean BMI was 27.8. Mean length of stay in hospital was 4.6 days. 299 lymph nodes were removed and the mean number of lymph nodes retrieved was 10.3 (17 were positive).
In the transperitoneal approach group, the mean age was 64.9 years and the mean BMI was 28.4. Mean length of stay in hospital was 4.5 days. 109 lymph nodes were removed and the mean number of lymph nodes retrieved was 7.8 (only 1 was positive).
In all cases, save 2 of advanced cervical cancer, additional surgical procedures were performed. None of the interventions required laparotomy.
Conclusions: Many studies document the greater validity, safety and morbility reduction of LPL versus open surgery. Our interest is centered in comparing transperitoneal versus retroperitoneal approaches. The retroperitoneal approach is a simple technique which doesn't require an experienced assistant nor Trendelemburg position. It generates fewer postsurgical adhesions in the paraaortic area, reducing the morbility of subsequent radiotherapy treatment. Its two inconveniences are that its requiring two extra incisions and that it can only be performed at the beginning of the intervention. Our retroperitoneal sample obtained a greater number of lymph nodes and fewer complications than the transperitoneal approach. We prefer the retroperitoneal approach for LPL, when pre-operatory diagnosis is available.

P6_35

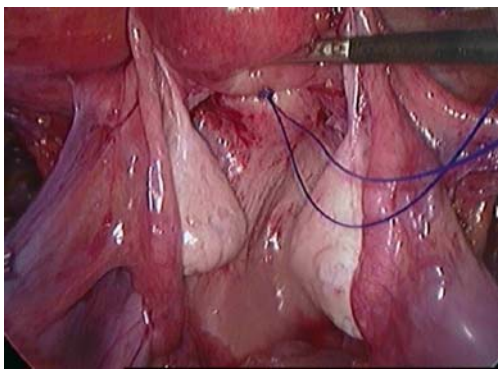
Laparoscopic abdominal cerclage after exposed vaginal cerclage in post radical trachelectomy patient

P. Pathiraja, S. Dobbs, I. Harley
Department of Gynaecology Oncology Belfast City Hospital, Belfast, United Kingdom

Objective: Radical Trachelectomy in earl cervical malignancy is offered to patients who wish to retain their reproductive function.
Materials and methods: In routine practice cervical cerclage is placed vaginally during trachelectomy to minimise pregnancy loss due to cervical incompetence. During this procedure there is extensive amount of cervical tissue is removed therefore application of prophylactic cervical or abdominal cerclage is appropriate. It is recommended to have cervical creclage in patient with conformed cervical incompetence and evidence suggest some benefit in recurrent late trimester miscarriages. Success rate in abdominal cerclage is far more superior to vaginal cerclage suggested by case series and anecdotal evidence[4].
Case of Mrs. B. who is 28 years old present to the gynaecology oncology follow up clinic with vaginal discharge six months after radical trachelectomy, pelvic node dissection and vaginal placement of cervical cerclage for stage 1b cervical cancer. Clinical examination revealed cervical suture exposure with cervical stenosis. After appropriate counselling she was consented for examination under anaesthesia (EUA), cervical dilation and replacement of cerlage vaginally or abdominally. EUA revealed large area of cervical cerclage suture exposure with minimal cervical tissue and significant cervical stenosis. There was no evidence of recurrence of cervical cancer.
Procedure: After EUA it was agreed to perform laparoscopic abdominal cervical cerclage. Cervical canal dilated up to 8 Hagar and the dilator was kept insitu during the procedure to prevent inadvertent closure of uterine opening (cervical os). At laparoscopy there was minimal pelvic scaring and adhesions from the previous pelvic node dissection and that anatomical land marks were located with minimal dissection. Bilateral uterine areteries were identified 1O Proline suture was used on a No. 35 round bodied needle to place the suture medial to the uterine arteries on both sides. Immediate pelvic anatomy was exmined to exclude any obvious operative complications and cerclage suture was secured at the level of internal os posteriorly.



1. Dissection of Uterine arteries



2. Placement of Suture

Results: Abdominal cerclage either open or laparoscopic is well known procedure and is considered superior to vaginal cerclage[3]. It is done mainly to minimise risk of pregnancy loss due to cervical incompetence or after extensive surgery to remove cervical tissue i.e. trachelectomy. No randomised trials are available to assess the effectiveness of this procedure after trachelectomy but anecdotal evidence suggest prophylactic abdominal cerlage in post tracelectomy is beneficial to minimise pregnancy loss. In our patient the effectiveness of the procedure is being followed up and this was the 1st time such procedure was carried out in a case like this.

Conclusions: Laparoscopic placement of abdominal cerclage in post radical trachelectomy patient is successful in the event of late complication of cervical cerclage where appropriate laparoscopic skills are available.

Corresponding author: Dr I. Harley

Reference:

1. Abdominal radical trachelectomy: Success and pitfalls in a general gynecologic oncology practice. Gynecologic Oncology, Volume 112, Issue 3, March 2009, Pages 506-510. Alexander Olawaiye, Marcela Del Carmen, Rosemary Tambouret, Annekathryn Goodman, Arlan Fuller and Linda R.
2. Robotically Assisted Total Laparoscopic Radical Trachelectomy for Fertility Sparing in Stage IB1 Adenosarcoma of the Cervix. John P. Geisler, Curtis J. Orr, Kelly J. Manahan. Journal of Laparoendoscopic & Advanced Surgical Techniques. September 1, 2008, 18(5): 727-729. doi:10.1089/lap.2007.0236.
3. Fertility-sparing radical abdominal trachelectomy for cervical carcinoma: technique and review of the literature. Abu-Rustum NR, Sonoda Y, Black D, Levine DA, Chi DS, Barakat RR. Gynecol Oncol. 2007 Jun;105(3):830-1; author reply 831. Epub 2007 Mar 28
4. Laparoscopic abdominal cerclage Raedah Al-Fadhli, Department of Obstetrics and Gynecology, Obstetrics and Gynecology Clinics - Volume 31, Issue 3 (September 2004)

P6_36

Ductoscopy in intraductal problems

M. Cabero, C. Ara, M. Cusido, R. Fabregas, A. Ubeda.
Departamento de Obstetricia Ginecologia y Reproducción. Insituto universitario Dexeus. Barcelona

Ductoscopy is an endoscopic technique to see directlly the galactoforous conducts. The must important indication is unilateral one hole spills allowing the differential diagnosis of intraductal problems. In addition it provides the possibility to do direct intraductal cytologies of injuries, duct washings, biopsies and endoscopic microsurgery. A retrospective study using two types of ductoscopes, were done. One to diagnosis (0,55 mm of caliber and optics of 0,30 mm) and an other for surgical procedures (1,1 mm of caliber with optics of 0,45 mm and channel of work of 0,40 mm). For microsurgery a small basket presser of 0,38 mm was used. Local periareolar anesthesia was used for procedures. Between February of 2004 and December of 2008, 246 ductoscopies to 171 patients have been made; 138 due to secretion through nipple (80.70%). From 171 patients with secretion, 62 (36.25) were diagnosed of intraductal papiloma. The mean age was 43 years. Ductoscopy were made in the place the papilar injury and biopsy or papiloma exeresis was made. Exeresis of the portion of conduit with the papiloma was made (previous ductoscopic location). Pathologic results: Ductuscopy surgery 6 papilomas and surgery 55 papilomas and 1 epithelial hyperplasia.

In 40 patients (88.88%) ductoscopy with biopsy and/or microsurgery was made, with later selective galactophorectomy in theatre. 5 patients (11.11%) were treated by microsurgical ductoscopy and later a control ductoscopy (up three months).

In summary, ductoscopy is a very useful technique for differential diagnosis of intraductal injuries.

P6_37

Risk factors for endometrial pathology among breast cancer (BC) women under tamoxifen (Tmx): are we too exhaustive in follow-up?

E. Lorenzo Hernando, A. Tejerizo García, G. López González, L. Muñoz Hernando, L. Marqueta Marqués, J.L. Muñoz González, J.S. Jiménez López
Hospital Doce de Octubre, Madrid, Spain

Objective: To asses risk factors for endometrial pathology in BC women under TMX.

Patients and Methods: retrospective study of TMX treated BC women, submitted to hysteroscopy (HSC) office during 2005 because of abnormal ultrasound (US) findings or vaginal bleeding.

Results: 91 patients had a median age of 56.81 years (95%CI 54.30-59.31). The US image for which the patient was submitted to HSC office was a suspected polyp in 41.3% and thickened endometrium in 32.5%. 27.5% had vaginal bleeding. Results of HSC biopsy were: polyp (56%), cystic atrophy (13.2%), atrophy (7.7%) and endometrial malignancy (3.3%). Bivariant analysis did not find significant differences between women with normal and pathological HSC findings in vaginal bleeding, risk factors for endometrial pathology, time under TMX or age when starting TMX. Endometrial thickness in the last US registered was significantly lower for women who had previously had a pathologic biopsy (table 1). Women under 50 years had a higher proportion of vaginal bleeding than the oldest (42.6% vs 11.4%, p=.001) and more endometrial pathology, not reaching statistical significance (81.0% vs 61.5%, p=.053).

Conclusions: TMX causes an increase proportion of vaginal bleeding in women under 50 years, probably by interfering with menstrual cycle. However, this is not associated to a statistically significative increase of endometrial pathology. Further studies are needed to clear out if these women should undergo so close endometrial follow-up.

P6_38

Laparoscopic lymph node dissection for gynaecological malignancies

D. Papatheodorou, T.K. Madhuri, A. Tailor, S.A. Butler-Manuel
Royal Surrey County Hospital, Guildford, UK

We present our series of laparoscopic lymph node dissection for gynaecological malignancies.

Introduction: Lymph node metastases are an important prognostic variable in determining outcome following surgery for gynaecological malignancies.

Methods: A retrospective, audit in women with a spectrum of malignant conditions was undertaken between June 08 and May 2009 from the department's patient case notes and the gynaeoncology database. Data collection included patient demographics, diagnosis and treatment information and detailed histology including the number of lymph nodes on each side. Operating information included the operating time, mean blood loss and intra-operative complications. Post-op complications and hospital stay was also recorded.
Results: 35 patients were included in the audit. They included women with cervical, endometrial cancers and restaging procedures for early ovarian malignancies. The time taken for the procedure was further stratified depending on the surgeon (consultant/trainee) and the mean operating time was 130 minutes.The median lymph nodes were 19. The mean blood loss was 125mls. The mean hospital stay was 3.7 days. This was partly because of 2 stage procedures for cervical cancer patients who remain in-patients till results became available. Only 1 lymphocyst was recorded post-operatively when reviewed in clinic.
Conclusion: Laparoscopic lymph node dissection is a safe procedure when performed in trained hands. There is conclusive evidence showing that laparoscopic lymph node dissection gives similar results to open lymph node dissection.

P6_39

And now remove my cervix too; The Farnborough experience of laparoscopic trachelectomy following laparoscopic supracervical trachelectomy

J. Erian, A. Pachydakis, C. Lee, P. Troboukis, N. Hill
Princess Royal University Hospital Minimal Access Unit, UK

Objective: To investigate the histopathology, indications for surgery, techniques and outcomes of laparoscopic removal of cervix following laparoscopic supracervical hysterectomy.
Methods: All women who underwent laparoscopic supracervical hysterectomy in our unit between October 2003 and March 2008 were included in the study. The indication for removing the cervical stump was recorded and symptoms compared with those reported at the 8 week follow-up assessment. Intra-operative and post-operative complications were noted. All histopathology results were studied to determine the rate of adenomyosis in the residual cervical stump as well as any other Intraperitoneal pathology that could contribute to the symptoms.
Results: 489 women were included in the study. 10/489 (2.04%) required a further operation to remove the cervical stump. The most frequent indication present in 6/10 (60%), was cyclical bleeding. A further 3/10 (30%) were experiencing pelvic pain postoperatively. In two women (20%) the cervix was removed due to the histopathology from the initial hysterectomy specimen revealing atypical hyperplasia undiagnosed at the time of hysteroscopy. At the time of surgery, bowel adhesions to the cervical stump were noted in 2/10 cases. In the remaining 8/10 (80%) the cervical stump was free of adhesions. Histological examination of the cervical stump specimen revealed adenomyosis in 1/10 (10%) compared to 21.5% of the morcellated uterus specimens. There were no cases of Intraperitoneal adenomyosis or morcelloma. Ulceration and granulation tissue was present in 1/10 cases and mild inflammation in 2/10 cases. In 6/10 cases histology revealed normal cervical architecture. All symptomatic women reported significant improvement in their symptoms following surgery.
Conclusion: This study has shown that the requirement to remove the cervix following laparoscopic supracervical hysterectomy is an unusual occurrence (2%). The occurence of cervical stump adenomyosis is very rare (1/489 cases 0.002%) and with this technique there is no residual adenomyosis or morcellomas identified in the peritoneal cavity postoperatively. The request for laparoscopic trachelectomy following LSH could be reduced with appropriate preoperative counseling.

P6_40

LNG-IUS vs. oral progestogens for endometrial hyperplasia. A comparative cohort study with long term follow-up

Ioannis D Gallos, Preeti Krishan, Manjeet Shehmar, Janesh K Gupta
Academic Unit of Obstetrics and Gynaecology, Birmingham Women's Hospital, Birmingham, UK

Objective: In women with endometrial hyperplasia to evaluate the Levonorgestrel-Intrauterine System (LNG-IUS) against orally administered progestogens for achieving regression of hyperplasia and preventing recurrence.
Methods: All consecutive patients diagnosed with endometrial hyperplasia between 1998-2006 at Birmingham Women's Hospital were included. They were treated either with LNG-IUS or with oral progestogens. The outcome was evaluated according to histological endometrial regression.
Results: During the study period, 209 were treated with LNG-IUS and 96 with oral progestogens. The mean follow-up of 25 months (95% CI 23.1-27.6). 53.2% of LNG-IUS group were menopausal compared to 28.8% for the oral group.
The LNG-IUS had higher rate of regression 92.3% vs 74% (OR 4.25, 95% CI 2.14-8.42) and shorter time from diagnosis to regression (8.4±6.9 vs 10±12.6 months). The relapse of hyperplasia during follow-up was more common in the orally treated group 28.6% vs 8.4% (OR 4.38, 95% CI 2.11-9.07).
Conclusion: Histological regression of endometrial hyperplasia with LNG-IUS therapy is more robust and reliable compared to oral progestogens and the recurrence of the disease is less frequent. Women with hyperplasia need continuous medical treatment in order to ensure complete regression.

P6_41

Endometrium Adenocarcinoma IA: hysteroscopic morphology and epidemiology

M. Arrue, L. Goyeneche, B. Rivero, M. Gorostidi
Obstetrics and Gynecology department, Hospital Donostia, San Sebastián, Spain

We make a descriptive and morphological review of all hysteroscopic images with final diagnosis of Adenocarcinoma IA since 1st of january 2004 to 31th december 2008 in Obstetrics and Gynecology department, at Donostia Hospital in Spain.