

We report about our experience with thermal balloon ablation in the treatment of menorrhagia, an approved alternative to hysterectomy.

Until today hysterectomy is regarded as the definitive surgical treatment of heavy menstrual bleeding, achieving 100% success concerning cessation of menstruation. However, since hysterectomy is associated with some undesirable effects on cardiovascular and psychic functions, treatment options are especially needed.

These devices irreversibly coagulate the endometrium and underlying myometrium with the aid of heat and pressure. During 2006 and 2009 we evaluated 175 patients with focus on patient satisfaction and complications.

More recently developed thermal balloon ablation systems, reach almost equally effective improvement and normalization of bleeding patterns. Clinical studies report average success rates in the amount of 90% or even more according to our results. 89% of our considered patients represented postoperatively their menstruation bleeding as amenorrhoea, mild or moderat.

In comparison to hysterectomy thermal balloon ablation should be recommended in therapy of dysfunctional uterine bleeding because of shorter operation time, less blood loss during surgery, safety, ease of use and retention of the uterus. Due to these benefits a decrease of implemented hysterectomies and an increase of with thermal balloon ablation systems treated women in Austria has been recognizable.

Despite all that, it is eminently important to attentively furthermore monitor new occurring side effects and interactions between the treatment, medication and anatomical structures. Lately two severe complications (rupture of the uterus during operation) have been reported.

Thermal balloon ablation is deemed to be a safe alternative in the treatment of dysfunctional uterine bleeding but it can be associated with severe problems.

FC.10.7

The next generation: Novasure® endometrial ablation after uncomplicated Essure® sterilisation in the same time, a feasibility study.

Immerzeel P.*^[1], Van Eyndhoven H.^[1], Vleugels M.^[2]

^[1]*Isala Klinieken Zwolle ~ Zwoll ~ Netherlands* - ^[2]*Ziekenhuis Rivierenland Tiel ~ Tiel ~ Netherlands*

A prospective study to test the feasibility and safety of Essure sterilisation directly followed by general endometrial ablation in women with menorrhagia.

In patients undergoing Novasure global endometrial ablation (GEA) directly followed by Essure sterilisation, hysterosalpingogram (HSG) as confirmation test is not reliable in 25% of the patients because of severe synechiae (Detollenaere 2011). After uncomplicated Essure procedure, ultrasound can replace HSG as confirmation test. It seems attractive to combine both procedures only when ultrasound is sufficient as confirmation test. In all other cases the endometrial ablation should be performed after the HSG. Therefore, the logical sequence of this combined procedure is to perform the essure sterilisation before the endometrial ablation.

Between September 2009 and March 2011, 15 patients were allocated for the combined procedure. In case the the Essure sterilisation was uncomplicated, this was directly followed by GEA under general anesthesia. After 3 month the placement of the micro-inserts was verified by ultrasound. In case HSG was needed GEA was postponed until after the confirmation test.

Of this group, 12 patients had an uncomplicated Essure® sterilisation followed by GEA. In one of these patients one Essure microinsert was accidentally pulled out with removal of the Novasure device. It was successfully replaced, and HSG after 3 months was planned. In the remaining three patients HSG was necessary because of the course of the procedure. In all patients HSG was conclusive with occlusion of both tubae and no synechiae. In the latter three patients GEA was performed after HSG without problems.

We conclude that GEA after Essure sterilisation is feasible when ultrasound confirmation test can be applied. In case HSG is needed, GEA should be postponed until after the confirmation test.

FC.10.8

22 Fr and 26 Fr bipolar operative hysteroscopy: our experience

Mereu L.^[1], Albis Florez E. D.^[1], Prasciolu C.*^[1], Carri G.^[1], Giunta G.^[1], Cofelice V.^[1], Mencaglia L.^[1]

^[1]*Centro Oncologico Fiorentino ~ Sesto Fiorentino (Fi) ~ Italy*

To evaluate whether a bipolar resectoscope (BP) 22 Fr and 26 Fr (Karl Storz, Tuttlingen, Germany) represent a reliable improvement in operative hysteroscopy.

Bipolar electrosurgical surgery avoid electrical burns because of the proximity of active and neutral electrodes and reduce the risk of electrolyte imbalance by the use of isotonic saline

We conducted a retrospective descriptive study on a total of 140 women that referred to CFO between June 2010 and May 2011. All the patients were treated for uterine synechia, uterine septum, endometrial polyps and myomas, by the use of a bipolar resectoscope 22 Fr or 26 Fr, except for Myomas G2 and G1 >2 cm and polyps >3 cm removed only by the bipolar resectoscope 26 Fr. Mechanical dilatation of the cervix was obtained by Hegar series until N°8 for BR 22Fr and N°10 for BR 26 Fr

The patient's mean age was 39.32 (range 23–73) and 41,5 (range 30–60) for 22 Fr and 26 Fr respectively.

We performed 65 metroplastic (55,1%), 33 polipectomy (27,9%), 7 miomectomy (5,9%), and 1 sinechiolisis (0,8%) by bipolar resectoscope 22 Fr; 5 metroplastic (22,7%), 5 polipectomy (22,7%) and 12 miomectomy (54,5%) by bipolar resectoscope 26 Fr.

The mean surgical time was 16.4 minute (range 5 minutes—36 minutes) for 22 Fr; it was 21,40 minutes (range 8–40) for 26 Fr. The mean time of cervical dilatation by Hegar series was 54 sec for BR 22 Fr and 86 sec for 26 Fr.

We observed 1 uterine perforation, 2 post operative bleeding more than 7 days and 1 intravasation syndrome. All complications has been resolved with observation and medical therapy.

Bipolar resectoscopy reduces the risk of complications. The bipolar resectoscope 22 Fr is preferable than 26 Fr because require

a lower cervical dilatation limiting possible cervical and pelvic injuries

FC.10.9

Evaluation of hysteroscopic polypodectomy and submucosal fibromyomectomy with the use of truclear morcellator in comparison with conventional resectoscopy. The Greek experience

Mathiopoulos D.*^[1], Vlachos S.^[1], Tsiaousi I.^[1], Giatrakou M.^[1]
^[1]*Leto Maternity Hospital ~ Athens ~ Greece*

Since it's recent advent the Truclear Hysteroscopic Morcellator has been gaining popularity. We evaluated the use of this device in comparison with the well established conventional resectoscopy. In this study the Truclear Morcellator reduced the operating time and was proved to be safer than the conventional resectoscopy.

The invasive hysteroscopy with the use of electric current or CO₂ (resectoscopy) has been established as a method of choice for intrauterine lesions (congenital abnormalities, polyps, submucosal myomas) since 1970. However, the Truclear Hysteroscopic Morcellator has been recently gaining popularity. As it is a new modality, it needs further evaluation and comparison with the resectoscopy.

9 mm Hysteroscopic Morcellator by Smith & Nephew (Truclear) was used. Evaluation and comparison criteria were: 1) operating time, 2) fluid loss, 3) visibility, 4) Normal Saline usage, 5) serious complications (perforation and bleeding), 6) learning curve.

The average operating time for the intrauterine hysteroscopic polypodectomy using Truclear was 9 min, vs 18 min of resectoscopy. The average operating time for the Truclear submucosal fibromyomectomy was 32 min vs 45 min of resectoscopy. The fluid loss related to the use of Truclear was significantly less than in resectoscopy. The serious complications rate was reduced, especially, when treating fibromyomas.

The use of Truclear Morcellator for hysteroscopic fibromyomectomy and polypodectomy is a reproducible, fast and safer technique than the conventional (uni- or bipolar) resectoscopy, particularly when treating fibromyomas.

FC.10.10

How to treat submucosal myomas with office hysteroscopy

Cammareri G.^[1], Rollo D.^[2], Di Francesco S.^[1], Zampogna G.^[1], Cirillo F.*^[1], Ferrazzi E.^[1]
^[1]*Ospedale V Buzzi ~ Milano ~ Italy* - ^[2]*Ieo ~ Milano ~ Italy*

Office hysteroscopic myomectomy is a safe and well tolerated procedure, even without any anaesthetic support. With the multiple step approach we have the possibility to treat big submucosal myomas, even G2.

Hysteroscopic myomectomy is a well spread procedure with a recognized safety and feasibility. At the contrary, only few groups perform office myomectomies. With this study we investigate the feasibility, safety and acceptability of office hysteroscopic myomectomy in submucosal G0, G1 and G2 myomas.

We did a retrospective analysis of 28 consecutive office hysteroscopic myomectomies from January 2009 to June 2010, operated in an outpatient's clinic of Obstetric and Gynecology University Department.

We included 28 symptomatic women with 1 or more submucosal G0 or G1 or G2 myomas.

We performed hysteroscopic myomectomy using bipolar instruments (Versapoint, Gynecare) with slicing technique in multiple step approach. All hysteroscopies were performed without any anaesthetic support. The follow-up was made with an US control after 1 month.

We treated 34 myomas, of them: 15 were G0, 15 G1 and 4 G2. 3 patients had more than 1 myoma: one had 4 myomas, one had 3 and another 2 myomas. Every patient were subjected to 1.6 hysteroscopies on average. The mean diameter of the fibroids was 20 mm (6–42 mm). The average operating time was 11.8±4.6 minutes. 5 patients (17.9%) were sent to operation room to complete the myomectomy. We observed two cases of vasovagal reaction and no major complications. The average of pain NRS was 3.4±1.0 and only one patient requested a painkiller after the operation.

Office multistep approach was successful in a 83% of patients: it gave us the possibility to treat big submucosal myomas, even G2. Office hysteroscopic myomectomy is a safe and well tolerated procedure, even without any anaesthetic support.

Session FC.11

* Free Communications_11 *

Teaching and Training—Single Access Surgery

FC.11.1

An electromagnetic motion analysis system to assess gynaecologists' surgical skills in-vitro using straight stick (SSL) and single incision (SILS) laparoscopic surgery—construct validity and psychomotor comparisons

Kaushik S.*^[1], Nama V.^[1], Prietzel-meyer N.^[1], Shepherd J.^[2], Ind T.^[1]

^[1]*St George'S Hospital Nhs Trust ~ London ~ United Kingdom* -
^[2]*The Royal Marsden Hospital ~ London ~ United Kingdom*

We used motion analysis to assess ergonomics of Single incision laparoscopy (SILS) compared to straight stick laparoscopy (SSL). The more experienced surgeons performed the same task with fewer moves over a shorter distance.

We refined a system for analysing hand motion in-vitro. Motion analysis was used to assess and compare the manual dexterity of experienced and inexperienced surgeons when performing SSL and SILS.

An electromagnetic motion tracking system was used with software developed in-house. Sample rate was 10 sec-1. Thresholds for velocity, distance, and duration of each movement were set at as 0.1 ms-1, 0.5 cm, and 0.3 seconds respectively. Ten medical students, trainees, and consultants each performed two exercises (transferring four Hama beads across a pin board and excising a circle printed on gauze between two lines 4 mm apart) using SSL and SILS.

For both exercises and techniques, statistically significant construct validity was demonstrated between medical students,