In the past 10 years, I have participated in the evolution of a large teaching public hospital in São Paulo (Brazil), Vila Nova Cachoeirinha Maternity Hospital. Since 2012 I have been part of a medical associate, first as a medical resident, then as a clinical practitioner of gynecological endoscopy unit. Initially, Vila Nova Cachoeirinha Maternity Hospital was mainly an obstetric hospital, averaging 10,000 births per year. Nowadays, it became a reference in gynecological endoscopy care and teaching in the city of São Paulo.

The transition was slow and progressive. These efforts were led by Dr. Geraldo Nadai, gynecological endoscopy unit head physician in the hospital aforementioned, who made it possible acquire new equipments, increase the number of exams and surgeries, training medical residents to more complex procedures. Partnerships were made with world references in hysteroscopy, such as Luiz Cavalcanti (Brazil), Alfonso Arias (Venezuela) and Luca Mencaglia (Italy), and began to share their experience through courses and surgeries.

These initiatives, associated with the large number of patients, allowed the scientific and technical development of the group. This allowed the improvement of the service, residency in gynecological endoscopy, host monthly hands-on courses (European Institute of Endoscopic Science/ EIES and Advanced Center and Training in Hysteroscopy/ CATHIS) and the Italian-Brazilian Gynecological Endoscopy Symposium.

In 2018, Vila Nova Cachoeirinha Maternity Hospital host the Italian-Brazilian Gynecological Endoscopy Symposium in collaboration with renowned names in the area, such as professors Stefano Bettochi (Italy), Attilio di Spiezo (Italy) and Giuseppe Bigatti (Italy). Live surgeries and classes were performed, which provided an unforgettable experience for the participants and for the hospital staff.

Several factors were important for the development of the group: the knowledge of the experienced doctors, the energy of the younger ones, and the prestige of colleagues from other hospitals. The large number of procedures (over 1,000 outpatient exams per year) associated with a scientific and knowledge base has made it possible to properly train young hysteroscopists and update the most experienced ones.

I invite all colleagues to participate April 30th, 2020, in the 12th Italian - Brazilian Gynecological Endoscopy Symposium at Vila Nova Cachoeirinha Maternity Hospital (Brazil). It will be a pleasure to welcome you to the Pre-Congress “Live Surgery” at Hospital Vila Nova Cachoeirinha Maternity Hospital and to share the experience of professors Luca, Arias, Attilio…

Hope to see you there!

Thiago Guazelli
Brasil
Endometrial polyps are areas of growth of endometrial tissue inside the uterine cavity. They are composed of stroma, glands and blood vessels coated by endometrial lining. Polyps are the most common endometrial pathology found on diagnostic hysteroscopy and represent a frequent cause of operative hysteroscopy. They are usually benign in nature, although, when symptomatic, about 20% have small areas of hyperplasia being between 0.5% and 1% malignant.

The prevalence of endometrial polyp ranges from 6% to 38% in the general population but is much higher in postmenopausal women. The incidence of malignant or pre-malignant findings in endometrial polyps ranges from 2 to 10% in menopausal women. Symptomatic polyps should be removed in the premenopausal or postmenopausal woman because evidence reports improvement in symptoms, with abnormal uterine bleeding after hysteroscopic polypectomy resolving in 75% to 100% of cases (AAGL practice report: practice guidelines for the diagnosis and management of endometrial polyps. American Association of Gynecologic Laparoscopists. et al.)

If you are interested in sharing your cases or have a hysteroscopy image that you consider unique and want to share, send it to hysteronews@gmail.com
INTERVIEW WITH...

A real artist is conscious of having a personal singularity that is partly a blessing and partly a curse

How has the hysteroscopy changed in the last 30 years?

We owe the first great revolution in modern hysteroscopy to Jacques Hamou, who in 1980 created - together with Storz GmBH, the microcolpoisteroscope, an instrument that includes in itself the characteristics of a diagnostic hysteroscope, a colposcope and a microscope. It is a tool that I continue to use even today to observe the preneoplastic cellular alterations caused by the Human Papilloma Virus (HPV) on the cervix. The gaseous distension of the uterine cavity with CO2, originally used, was later replaced in the common clinical practice by the use of the liquid medium (saline solution).

Another important change was introduced with the collaboration of Stefano Bettocchi by reducing the caliber of the hysteroscope, allowing many gynecologists to perform painless ambulatory diagnostics in most patients. The HOPKINS® optical system, with cylindrical lenses of just 2 millimeters in diameter and the miniaturization of the instruments for small surgery, then allowed to carry out some outpatient surgical maneuvers without anesthesia, thus contributing to the spread of the method.

More recently Giuseppe Bigatti (always an Italian...!) in conjunction with KARL STORZ, developed a new system: The Intrauterine BIGATTI Shaver (IBS®). The system allows the elimination of the pathological tissue from the uterine cavity, with a complex system of irrigation, suction, and oscillating cylinders.

...“in my experience the female surgeon possesses an ability to observe details superior to that of man”

Is there still a role for the classic resectoscope?

Yes, of course! Miniaturized instruments for ambulatory surgery (small polyps, minor adhesions, IUD removal, small targeted biopsies ...) are an excellent aid to solve small problems, but to date the traditional resectoscope has its own irreplaceable role to remove large fibroids and polyps, to correct several types of uterovaginal malformations, for all those cases that require a treatment that I prefer to call “endouterine surgery”, and that cannot be solved with miniaturized instruments without adequate distension of the uterine cavity and an effective anesthesia.

Nowadays people know the price of everything and the value of nothing.

Oscar Wilde, in his novel ‘The Picture of Dorian Gray’
Do you think that there's a bit of “art” in the hysteroscopic surgery?

Hysteroscopic surgery belongs to the skills of the gynecologist, as well as abdominal and laparoscopic surgery ... However, we cannot deny that some doctors have something extra we could call "talent" or - if you prefer "art" and that allows elegance in surgical maneuvers that distinguishes them from the mass ...

I would add that in my experience the female surgeon possesses an ability to observe details superior to that of man, perhaps due to her habit of doing more things at the same time, a sort of "multitasking" attitude, which makes her precious and irreplaceable in the diagnostic and surgical hysteroscopy.

What “new device” has really impressed you?

Giampietro Gubbini's mini-resectoscope, equipped with a wide range of accessories for small outpatient surgery, is undoubtedly a further revolution in the history of recent hysteroscopy. Originally introduced in 2010, it has undergone some minor changes in the following years, and today we have three sets of different diameters, which can be adapted to various needs. A further innovation of the Gubbini system consists in the possibility of using monopolar and bipolar current with the same accessories, thus making the treatment safer.

How important is the so called “diagnostic hysteroscopy” for you?

It is a fundamental diagnostic technique. The categorical answer does not appear excessive: the use of ambulatory diagnostic hysteroscopy is now indispensable whenever we have patients with infertility problems, atypical blood loss, diagnostic doubts advanced by ultrasound ... Many years ago a dear friend, now disappeared, loved to say: "every time you want to know what's in your womb, then you have to do a hysteroscopy ...!"

I would also add that I find it incredible that even today some centers that deal with assisted reproduction do not include diagnostic hysteroscopy among the indispensable investigations to access ART.

...a dear friend, now disappeared, loved to say: "every time you want to know what's in your womb, then you have to do a hysteroscopy“

Do you have any advice for the young physician who is starting out in the world of surgery?

My generation was undoubtedly very lucky: at the turn of traditional gynecology and technological innovations, it was able to train itself by changing its experience from "open" surgery to minimally invasive surgery. The young surgeon who today chooses minimally invasive surgery thinks only in terms of "surgery" and that's it, and is formed trying to resolve any complications by endoscopy.

Perhaps a further subspecialization is needed, separating laparoscopic minimally invasive surgery from hysteroscopic surgery: these are certainly two different environments, with different gestures, and different risks of complications. I would say that - if I can afford to give advice to the young colleague - it is necessary to choose in which field to specialize, to study a lot and - above all - to observe the tricks and the maneuvers that the actual experts put in place in order to obtain a "global" formation that their own sensitivity will be able to perfect on the basis of individual characteristics.
The LUMINELLE RotoSheath’s unique graduated tip size & hydrodilation from the inflow valve allow for comfortable traversing of the cervical canal.

CMOS Sensor & lens enable a high-definition view.

Rotating, single-use RotoSheath protects your scope & facilitates treatment.

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Elegant, ergonomically designed handle for comfort & maneuverability.

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Fertility-Sparing Treatment of Endometrial Endometrioid Cancer with minimal myometrial infiltration in young patients

Giulia Magnarelli, Paolo Casadio, Francesca Guasina, Andrea Alletto, Mariangela La Rosa, Enrico Fontana, Ciro Morra, Maria Rita Talamo, Renato Seracchioli
Department of Obstetrics and Gynecology, S. Orsola Malpighi University Hospital, Bologna University, Bologna, Italy

OBJECTIVE: To suggest a new option for the fertility-sparing treatment in young highly motivated patients with a well-differentiated G1 endometrioid adenocarcinoma with minimal myometrial infiltration

DESIGN: Pilot study.

SETTINGS: Tertiary care teaching hospital.

PATIENTS: We recruited 5 patients, ageing from 32 to 38 years, with a recent diagnosis of well-differentiated G1 endometrioid adenocarcinoma.

RESULTS: Two patients became pregnant spontaneously in 12 months after the end of hormone therapy and one had a pregnancy in 18 months with ART.

CONCLUSION: hysteroscopic endomyometrial lesion resection followed by progesterone hormone therapy as a new option for the fertility-sparing treatment in a selected group of patients who seek pregnancy and have a recent diagnosis of well-differentiated endometrial endometrioid adenocarcinoma with minimal myometrial infiltration.

INTRODUCTION

Endometrial cancer is the most common gynecological cancer in developed countries and is the 5th most frequent cancer affecting women. The estimated frequency is 19.1 / 100,000 cases in the USA and Canada and 15.6 / 100,000 in Europe.

It is usually associated with menopause, although up to 14% of cases are diagnosed in premenopausal women and up to 5% of cases in patients under the age of 40 years. It is usually diagnosed in early stages and with the tumor usually confined to the uterine cavity, which generally gives it a good prognosis.

Those patients who are diagnosed before the age of 40 years and before having given birth, usually have a strong desire to preserve their fertility despite oncologic risks.

It is well recognized that the gold standard of treatment for patients with atypical complex hyperplasia and early endometrial cancer is total hysterectomy with bilateral salpingo-oophorectomy. This therapy usually achieve good oncologic outcomes but this treatment can destroy fertility. For endometrial cancer patients at reproductive age and wishes to preserve fertility, fertility-sparing treatments may be considered as a valid alternative of treatment.
The fertility-sparing procedure was based on hysteroscopic lesion resection, according to Mazzon’s technique: removal of the endometrial lesion (step 1), removal of the underlying myometrium (about 3–4 mm) (step 2) and enlargement of the removed area (about 3–4 mm) (step 3). Furthermore, multiple random endometrial biopsies were taken on each uterine wall (step 4). All the steps were performed by a 5-mm cutting loop electrode with 100 watts of pure cutting output power. The material from each step was sent in separate containers for the histologic examination. The histologic lesion diagnosis was confirmed with minimal myometrial invasion (1-2 mm), while the random sampling resulted without atypia or malignancy.

All the patients decided to continue the conservative treatment and progestin hormone therapy (Megestrol Acetate 160 mg daily) was administrated for 9 months with quarterly hysteroscopic endometrial biopsies. Three months after hormone therapy ended, patients underwent an additional office hysteroscopy with multiple endometrial biopsies, which were negative. All the patients were closely followed performing outpatient hysteroscopic tailored biopsies every 3 months for the first year and every 6 months for the subsequent 4 years.

RESULTS

A complete response was achieved in all the patients who were subsequently authorized to seek pregnancy.

The objective of this study was to suggest a new option for the fertility-sparing treatment in young highly motivated patients with a well-differentiated G1 endometrial endometrioid adenocarcinoma with minimal myometrial infiltration (STAGE IA G1 for International Federation of Gynecology and Obstetrics).

PATIENTS

We recruited 5 patients, ageing from 32 to 38 years, with a recent diagnosis of well-differentiated G1 endometrial endometrioid adenocarcinoma. All the patients refused hysterectomy because of their not yet fulfilled childbearing desire, despite the strong instrumental suspicious of minimal myometrial invasion. After an adequate counselling on the fertility-sparing treatment and its risks, they chose the conservative procedure.

INTERVENTIONS

All the patients underwent office hysteroscopy performed using a 5mm-hysteroscope with continuous flow sheat. During this procedure, an endometrial pseudopolypoid lesion was diagnosed and a tailored biopsy was done using 5FR operating instruments. Histologic examination diagnosed a well-differentiated G1 endometrial endometrioid adenocarcinoma.

Therefore, in each case, pelvic magnetic resonance imaging was performed and it showed a high probability of minimal myometrial invasion. Nevertheless, all the patients refused hysterectomy and provided written informed consent to the conservative treatment.
Two patients became pregnant spontaneously in 12 months after the end of hormone therapy and one had a pregnancy in 18 months with ART. In only two cases a late relapse was recorded with a diagnosis of atypical endometrial hyperplasia at the hysteroscopic control. They underwent total hysterectomy and bilateral salpingectomy.

CONCLUSION:

Nowadays there is no consensus on conservative surgical procedures for the well-differentiated endometrial cancer treatment in young women requiring fertility.

In literature two options have been proposed to preserve fertility: progestin therapy alone and the same in combination with operative hysteroscopy considered as a preliminary surgery.

Mazzon et al. first proposed hysteroscopic resection followed by hormone therapy and close postsurgical follow-up as a new therapeutic option for young women with endometrial cancer without myometrial invasion (stage IA) who wish to preserve fertility. Subsequently, other authors used the same procedure in a greater number of patients with stage IA of endometrial cancer, obtaining very promising outcomes in terms of both 5-year survival and pregnancy rate.

Although, according to the international guidelines, myometrial infiltration is still an exclusion criterion for conservative treatment, as the prognosis is worse and the risk of lymphovascular involvement is greater.

For the first time we propose a case series of conservative hysteroscopic surgery in young women seeking pregnancy with the diagnosis of well-differentiated G1 endometrial endometrioid adenocarcinoma that minimally invades the myometrium.

All the patients were informed about the risks of this no standard management and the need for a close follow-up.

Although, because of their strong desire for pregnancy, they decided to undergo the above-mentioned conservative treatment, even in the presence of myometrial invasion. Good results were obtained in terms of cancer response and pregnancy rate.

These support the importance of this technique not only in the diagnosis but also in the treatment of the endometrial cancer.

Therefore the conservative treatment could be considered a reasonable and safely short-term alternative before the definitive surgery.

Thus we propose the hysteroscopic endomyometrial lesion resection followed by progestin hormone therapy as a new option for the fertility-sparing treatment in a selected group of patients who seek pregnancy and have a recent diagnosis of well-differentiated endometrial endometrioid adenocarcinoma with minimal myometrial infiltration. Nevertheless further studies with more patients are needed to confirm our results.

Disclosure of potential conflicts of interest.

All the authors do not receive payment or services from a third party for any aspect of the submitted work.

All the authors have no financial relationships with entities in the bio-medical arena that could be perceived to influence, or that give the appearance of potentially influencing, what we wrote in the submitted work.

All the authors have no patents, whether planned, pending or issued, broadly relevant to the work.
Isthmocele. Hysteroscopic & Laparoscopic surgery

Luis Alonso. Centro Gutenberg. Spain

The healing process of the cesarean section scar can in occasions be incomplete. In that situation, there is a disruption of the myometrium at the site of the uterine scar. This “gap” in the anterior lower uterine segment receives different names, being the terms “niche” or isthmocele the most commonly used.

The diagnosis of this condition is mainly based in the clinical symptoms, ultrasound evaluation and hysteroscopy. There is a high correlation between transvaginal ultrasound and hysteroscopy in the diagnosis of cesarean scar defects as have been observed in different papers.

This defect and its relation with some clinical symptoms such as menorrhagia, abdominal pain, dyspareunia and dysmenorrhea was first described by Morris using the term “cesarean scar syndrome”.

The estimated incidence of cesarean scar defect (CSD) ranges between 24% to 56% [10]. This incidence varies considerably depending on the reports. This is due to variation on definitions and the differences in the methods used for the diagnosis of the defect.

There is a clear relationship between the anatomic defect and the presence of different degrees of postmenstrual bleeding and other gynecological symptoms such as dysmenorrhea, chronic pelvic pain and infertility.

Different treatments have been proposed to correct this defect. Medical therapy with the use of oral contraceptives to reduce menstrual blood, hysteroscopy surgery to facilitate the drainage of blood and to reduce the local production and laparoscopic or vaginal surgery to correct the defect, trying to restore the normal anatomy of the istmical area.

When performing Isthmocele repair surgery, regardless of the selected approach, the aim should be at treating the factors responsible for postmenstrual bleeding. Acting in this way will improve the patient's symptoms, solve the problem of infertility associated with impaired sperm transport and reduce chronic inflammation, which will improve the associated painful symptoms.
HYSTEROSCOPIC ISTHMOCELE REPAIR

The hysteroscopic surgical isthmocele correction technique consists of four steps following Gubbini’s recommendation. As previously mentioned, the difference with the technique proposed by Fabres lies in the resection of both the lower and upper fibrous arch.

The surgical technique is usually performed with resectoscopes of 26-27 fr after dilation of the cervical canal. Many authors prefer the use of smaller resectors or even mini-resectors that do not require prior cervical dilation. By not performing a previous cervical dilation, the normal anatomy of the isthmocele is not altered, better identifying the defect in its natural state without creating any artifact in the anatomical structures.

The steps to follow to perform an Isthmocele repair are the following:

1- Resection of the lower fibrous arch. The resection of this fibrous tissue that is responsible for the natural exit of the menstrual flow is performed. This anterior arc must be resected until the continuity of the anterior face is restored, making the defect flat, allowing visualization the isthmocele dome. By resecting this fibrous tissue, we prevent the isthmocele from acting as a reservoir of postmenstrual blood.

2- Resection of the posterior arch. Resecting the posterior arch reduces fibrous retraction and improves uterine contractility, a very important factor in cleaning the uterus after menstruation.

3- Superficial coagulation of the vessels at the bottom of the isthmocele. The objective is to reduce the production of menstrual blood and debris in situ derived from the inflammation and vascular fragility found at the bottom of the isthmocele. We must remember that deep
coagulation should not be performed given the proximity of the bladder with this area of the isthmocele dome. Some authors advise the instillation of methylene blue in the bladder, which would alert us in the case of perforation of the bladder.

4- Total 360º endocervical ablation. Electrofulguration of all the inflammatory tissue that is located around the defect in the lateral aspect and posterior at the isthmic level. The objective of this step is that by destroying this inflammatory tissue, a substitution of the same with a new epithelial tissue occurs.

The hysteroscopic correction technique is simple and it is really a minimally invasive approach for the patient. There is currently a consensus on choosing the hysteroscopic route when the thickness of the residual myometrium is greater than 3 mm, which provides a margin of safety to avoid uterine perforation with possible bladder injury.

LAPAROSCOPIC ISTHMOCELE REPAIR

The objective of this approach, either by traditional laparoscopy or by robotic assisted technology, is the correction of the healing defect. It is therefore a corrective or restorative surgery unlike the hysteroscopic approach that is aimed only at treating the symptoms associated with isthmocele

This reparative treatment is based on the opening of the defect, resection of the fibrotic tissue located at the edges and closing the defect with suture, with the aim of achieving a complete closure of the defect. Fig 5

The steps to follow in this technique are:

1- Identification of isthmocele and dissection of vesicouterine plica to create a bladder flap. This maneuver separates the bladder from the anterior uterine wall, exposing the area of greatest weakness of the isthmocele. This area with less residual myometrium corresponds to the dome of the healing defect. Generally, it is a difficult dissection since there is usually a certain degree of fibrosis and adhesions. The risk of this initial maneuver is the accidental opening of the bladder wall and is therefore the most delicate maneuver of this type of approach. It is important to have an intravesical catheter that serves as a reference or work with the bladder partially filled.

2- Opening of the isthmocele. Once the isthmocele is located, it is opened from side to side throughout its length. There are several methods used to locate exactly the opening area. Perhaps the most common maneuver consists in the simple introduction of a hysterometer at the bottom of the scar of the anterior caesarean section, since it is a very thin area of myometrial tissue, the simple pressure with the tip of the hysterometer will bulge the incision area.

Another proposed technique consists in the use of a hysteroscope that is introduced into the isthmocele, the transillumination that occurs when observed by laparoscopy helps to locate the exact point of ideal opening, this method of locating the defect has been called the “sign of Halloween".

3- Excision of the fibrous edges. This maneuver aims to eliminate scarred fibrous tissue from the edges of the isthmocele, allowing better healing of the closure. We use bipolar in pure cutting mode to carry out this maneuver.
4- Closing the opening. Most authors use resorbable suture material in double layer for the closure of the myometrium. We have observed that it is easier if it is done first at the corners and then at the level of the center of the defect. These two layers are intended to achieve a greater thickness of residual myometrium thus eliminating the previous defect. Subsequently, the peritoneal closure is performed.

The laparoscopic correction technique requires a high skill level of laparoscopic surgery and a good laparoscopic suture technique, the most difficult step of the procedure is the dissection of the vesicouterine space.

There is currently a consensus on choosing the laparoscopic repair technique when the thickness of the residual myometrium is less than 3 mm given that there is little safety margin of the residual myometrium increasing the chance of bladder injury if performed with a hysteroscopic approach.

Corrective or reparative surgery pursues the goal to repair the defect and restore the normal anatomy at the isthmic level. This type of surgery can be performed laparoscopically, robotically, combined or vaginally. The opening of the defect, the excision of the fibrous scar tissue from the edges and the closure of the defect by planes are the common points to these techniques.

It should be noted that not all isthmoceles are symptomatic, that not all are associated with postmenstrual bleeding or infertility and that surgery should be reserved only for symptomatic cases.

**CHOICE OF ROUTE FOR REPAIR**

Surgical techniques for treating isthmocele can be divided into defect reparative with symptoms relief or symptomatic relief only.

Symptomatic surgery aims to improve the symptoms associated with isthmocele such as postmenstrual bleeding, infertility and pain. This type of surgery is performed with an hysteroscopic approach which is not intended to repair the healing defect but simply to improve the associated symptoms.

Recently an agreement of the scientific committee of the Global Congress on Hysteroscopy was published in which is stated that the hysteroscopic approach represents a comfortable and safe option to treat this pathology when the residual endometrial thickness is at least in 3 mm.

On the other hand, when the thickness of the residual myometrium is less than 3 mm, the preferred route should be laparoscopic, robotic, vaginal or combined, due to the risk of uterine perforation and bladder injury if the hysteroscopic route is chosen.
Corrective or reparative surgery pursues the goal to repair the defect and restore the normal anatomy at the isthmic level. This type of surgery can be performed laparoscopically, robotically, combined or vaginally. The opening of the defect, the excision of the fibrous scar tissue from the edges and the closure of the defect by planes are the common points to these techniques.

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**Hysteroscopy Conundrums**

*What's your opinion about this hysteroscopy?*

Recently, there were a debate in our whatsapp group about different instruments used to perform intrauterine surgery. Some colleagues selected the miniresectoscopes as the first option. It is an easy to use instrument that allow us to treat most of the pathology.

What do you think about? Do you have a miniresectoscope? have you used it?

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**Steven W. Tucker, MD, ACGE, FACOG • 2°**
President & Medical Director, Advanced Menstrual Care Center

Yes & yes. Mini is better than maxi, except larger fibroids.

[Ver traducción]

**Attilio Di Spiezio Sardo • 1er**
Professore universitario presso Università degli Studi di Napoli "Federic...

I have used first the miniresectoscope developed by Gubbini and I have to admit that it made my office surgery shorter and easier. The same good feelings I had with the miniresectoscope developed by Storz. They allow to overcome the main limit of office surgery: TIME!!!!

**Dr. Kevin Aguirre Castro • 2°**

Kevin says: "Hello Luis, from Chihuahua, Mexico I greet you. In our State we do not have easy access to a mini resectoscope. We perform hysteroscopies with Bettocchi's vaginoscopy technique, only in cases of pathologies larger than 2 cm we use a resectoscope with monopolar energy. We strive to update and it is a pleasure to see the different opinions"
Gubbini Giampietro • 1er
Universita degli studi di Bologna

Dear Luis, since 2009 I use the miniresector of 16 fr and I use it in 80% of pathologies. It represents the evolution of mini-invasive surgery. Now the possibility of having a 15 fr ellipse miniresector mono/bipolar increases the possibilities of this outpatient surgery.

Luis Alonso Pacheco • Autor
Unidad Endoscopía Centro Gutenberg Malaga - Team Coordinator Hyst...

Dear Friends, I’m agree with G. Gubbini. With the 16fr miniresectoscope you can treat 80% of pathologies you face. Is is a great tool, easy to use (if you are used to the classical resectoscope) and versatile. In cases of "Big " pathologies.... bigger instruments are needed.

adel sedrati • 1er
Gynécologue obstétricien

Dear Luis Alonso Pacheco good morning my friend:
I d'ont have a mini resectoscope, I had a chance to try it several times.
I belive that withe this instrument we can do the most common intrauterine pathology withe mono bipolar or cold loop.

Parul Kotdawala • 1er
Endoscopy Surgeon at Department of Ob/Gyn, V. S. Hospital & N. H. L ...

Can someone define mini-resectoscope?! Is the scope mini, or the resectoscope is mini?!

I use a bipolar resectoscope with 2.9 mm scope. It is good for smaller pathologies. But I have had to switch to regular monopolar resectoscope (4 mm scope) in some cases, due to logistic reasons of saline muddying, slower cautery, smaller tissue effects!

Rubén Baltà • 1er
Especialista en Ginecología y Obstetricia

Very useful! Great resectoscope and it can gets perfect results on nulliparous women
WHAT'S YOUR DIAGNOSIS?

Sometimes, when performing hysteroscopy, it is important to pay attention to every corner of the uterus, as Vasari stated «cerca trova», «he who seeks finds».

Answer to the previous issue: Retained products of conception

Reproductive Surgery
The Society of Reproductive Surgeon's Manual
Jeffrey M. Goldberg, Ceana H. Nezhat, Jay Ira Sandlow

Gain confidence in the surgical management of female and male infertility.

Authored by leading experts in operative gynecology and urology, in collaboration with the Society of Reproductive Surgeons, this valuable handbook provides readers with a comprehensive understanding of the indications, techniques, and outcomes of modern reproductive surgery.

This manual presents clear step-by-step instructions illustrated with intraoperative photographs and surgical videos in order to offer patients surgical options and avoid, or improve, IVF.
Large symptomatic submucous myoma successfully managed with hysteroscopy after treatment with ulipristal acetate in a nulliparous patient with desire of future fertility

Rafael Eduardo Collazos Robles

INTRODUCTION

Ulipristal acetate (UPA) reduces the bleeding caused by uterine fibroids, allowing to elevate hemoglobin levels, hematocrit and iron deposits. It also decreases the size of fibroids without estrogen deprivation. UPA is the only drug approved for preoperative treatment of moderate and severe symptoms of uterine fibroids. For the reasons stated above, the patient is optimized before the surgical intervention.

OBJECTIVE

To report a case of hysteroscopic myomectomy after two cycles of UPA in giant G1 submucous myoma impossible to resect before administration of UPA.

CASE REPORT

A 36-year-old nulliparous patient presented to our unit in February 2015 for a second opinion after 2 failed surgical hysteroscopies myomectomies. She was admitted with heavy vaginal bleeding, severe anemia and received transfusion of 3 units of red blood cell in another center. Was told that she needed to have a hysterectomy if the heavy bleeding did not resolve.

MRI revealed a submucous myoma on the posterior uterine wall of 58x54mm occupying the space of the uterine cavity and a subserous fibroid in 40x34mm on the uterine fundus. A cycle of 3 months of UPA and oral iron was initiated. The heavy vaginal bleeding subsided at 22 days. After the second cycle, the patient had amenorrhea and the anemia resolved.

Ultrasound performed after the initial treatment revealed a decrease in size of the fibroids to 39x37mm of the submucosal fibroid and 31x29mm of the subserosal.

Hysteroscopic myomectomy was then performed in 1 session using the bipolar resectoscope. Desogestrel 75mg a day for 1 month was given post intervention.

Pathology report: Leiomyoma of 5x5x3cm.

MRI 1 month post myomectomy revealed a 8mm endometrium with good differentiation of the myo-endometrial transition. From the second month after intervention the patient has resumed normal menses.
DISCUSSION

Uterine fibroids (UF), also known as leiomyomas or fibroids, are the most frequent solid tumors of the woman’s pelvis. They derive from the myometrium and have an abundant extracellular matrix surrounded by a thin pseudocapsule of connective tissue and compressed muscle fibers. As for their development and growth, they are sensitive to estrogen and progesterone, but lately it was postulated that also cytokines and growth factors related to fibrosis and angiogenesis seem to be involved.

It is estimated that 70% of women develop fibroids throughout their lives, with a maximum incidence in the fifth decade of life (1). Although frequently asymptomatic, fibroids cause symptoms in 25% of women of childbearing age.

Myomas can be classified according to their location in subserous (located on the uterine surface, deforming the serosa), intramural (located in the thickness of the muscular wall, unrelated to the serosa or mucosa), transmural (myomas in the thickness of the muscular wall that deform the serosa and the endometrial mucosa) and submucous (they develop under the endometrium displacing it in its growth).

The Wamsteker 1993 classification divides the submucosal myomas into (Figure 1):

1. **Type 0**: The myoma is located entirely inside the uterine cavity, either sessile or pedicle.
2. **Type I**: The myoma has an intramural extension less than 50%.
3. **Type II**: The intramural extent of the myoma is greater than 50%.

Currently, certain factors are taken into consideration to classify the complexity of myoma removal. Lasmar’s classification (Table 1) is based on scores that predict the difficulty of the hysteroscopic myoma resection.

Large submucosal myoma is a difficult problem in clinical practice, which usually causes heavy menstrual bleeding that leads to severe anemia and further increases the risk of surgery. Traditionally, hysterectomy was performed in patients with submucosal fibroids, but it is an unacceptable behavior for women with desire of future fertility. Abdominal myomectomy can decrease the future fertility potential, increase postoperative pelvic adhesions and the cesarean section rate [2]. On the other hand, hysteroscopic myomectomy for large submucosal myoma may require multiple surgeries and has a high rate of complications, including uterine perforation, excessive bleeding and fluid overload (3,4).

In this case, medical treatment with Ulipristal acetate (UPA) was used prior to surgical treatment. Ulipristal acetate 5mg is a drug from the group of Selective Modulators of Progesterone Receptors (SPRM), is a very innovative treatment highly effective in the treatment of symptoms associated with uterine fibroids, it does not have the side effects of GnRH analogs since it maintains FSH levels and therefore does not cause vasomotor symptoms. The great advantage is the control of bleeding usually after 7 days of treatment, the sustained reduction of myoma volume and pain control with minimal side effects. These improvements offer advantages during hysteroscopic myomectomy, including a shorter operating time, makes the hysteroscopic myomectomy easier to perform, less blood loss during the procedures, less chance of intraoperative complications and, most importantly, allows the resection of the fibroid in one step.

REFERENCES
