

Proposal of a New Hysteroscopic Surgical Technique

Short Communication

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Author Details

Ricardo Bassil Lasmar^{1*}, Bernardo Portugal Lasmar²

¹Department of General Surgery and speciality, Federal Fluminense University, Brazil

²Department of Gynecology, Federal Fluminense University, Brazil

*Corresponding author

Ricardo Bassil Lasmar, Department of General Surgery and speciality, Federal Fluminense University, Brazil

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Introduction

Proposal of a New Surgical Technique for Outpatient and Inpatient Hysteroscopy

The history of hysteroscopy began due to the need to view the uterine cavity. Over the years, great advances have allowed the examination to be performed in an outpatient setting with high effectiveness and resolution. This was possible thanks to the reduction in the diameter of the instruments, the emergence of new energy sources, such as bipolar, LASER, radiofrequency, in addition to the application of morcellator.

The first described hysteroscopy occurred in 1869, when Pantaleoni, using a 12 mm tube, candelabrum light, had access to the uterine cavity of a patient with abnormal uterine bleeding, aged 60 years [1]. In the hysteroscopic view, a polypoid formation was identified that was cauterized with a silver nitrate rod. Thus, the first hysteroscopy was outpatient operative hysteroscopy, demonstrating the great possibility of technical evolution that could happen.

With all this technological evolution, there was only, in the beginning, evolution of the surgical technique, maintaining the use of energy to cauterize, fragmenting the lesion, always making the surface of the lesion towards the base. This is maintained even with the change in technology, both when performing resection with a loop or morcellator, from the surface to the base of the lesion. The only difference is that when using the morcellator, the fragments are aspirated when sectioned. This surface approach is independent of the lesion, whether endocervical, endometrial or submucous myoma.

The limit in hysteroscopic surgery is related to basically four risk parameters: bleeding, operative time, perforation and absorption of the distension medium, which makes it necessary to pay great attention to the surgical procedure [1,2]. The goal of proposing a new surgical technique in hysteroscopy is to reduce the possibility of all these risk parameters, leading to safer and faster surgery.

Proposed Hysteroscopic Surgical Technique

The proposed technique is based on the direct approach to the base of the lesion, regardless of its size, being possible to perform it at an outpatient and hospital level, using any existing instrument. For this, it will be necessary to change the philosophy of surgery, approaching the base of the lesion to remove it from the uterine wall and after fragmenting it to remove it from the uterine cavity or leaving the lesion in the cavity for later expulsion. This technique allows the permanent evaluation of the base of the lesion, leading to a complete study of it, including possible malignancy outside the extremity, since the base diameter can determine the surgery environment, outpatient, in the smallest bases and hospital in the largest.

Today, the dimensions of lesions are absolute limits for outpatient surgery, when changing to the diameter of the base, we expand the possibility of surgical resolution outside the operating room, bringing immediate resolution and lower cost. In the diagnosis, the guarantee of investigation of the entire lesion, not just the surface, will expand outpatient surgery, immediate resolution of symptoms, larger piece for anatomopathological study and work with the art of technique.

In the operating room, the shorter operative time, less bleeding, less absorption of the distension medium, better view of the operative field, less endometrial lesion, better identification of the normal endometrium and the base of the polyp, as the endometrium will not be edematous and, mainly, the most important step of the surgery at the beginning of the surgery, leaving the fragmentation of the lesion for later, without vascularization [1,2].

Description of Technique

Office Hysteroscopy

It starts by investigating the entire uterine cavity and the entire lesion. In the outpatient procedure, the evaluation of the base of the lesion is essential for performing outpatient surgery, and the size of the lesion is important, but not limiting for the surgical approach. In



outpatient hysteroscopy, lesions with small bases and sometimes with moderate bases can be removed quickly and safely by making a direct approach to the base of the lesion. In the endocervical polyp, with the use of scissors, parallel to the endocervical wall, the progressive section is performed, under hysteroscopic view, until its complete release from the wall. The limits are the patient's ability to tolerate the procedure and the degree of vascularization at the base of the lesion. The same procedure can be performed with the mini-resectoscope, directing the resection loop directly to the base of the polyp and with energy, removing the lesion from the endocervical wall in one or two resections, with minimal discomfort, bleeding and shorter operative time (Figure 1).



Figure 1: Office endocervical polypectomy with scissors.

In intrauterine diseases, both endometrial polyp and submucous myoma should be addressed at their base. The endometrial polyp should be grasped with grasping forceps, with cervical fundus movements and slight rotation, until the polyp detaches from the uterine wall, forming a new base. Again, the same movement will be repeated, releasing another part of the polyp and forming a new base for apprehension, until its complete release. Then, with the same forceps, the end of the polyp is grasped and removed from the uterine cavity. The limits are the patient's ability to tolerate the procedure, wide polyp base, fundic and cornual region and some mucous polyps, these present little resistance to grasping with the forceps (Figure 2).

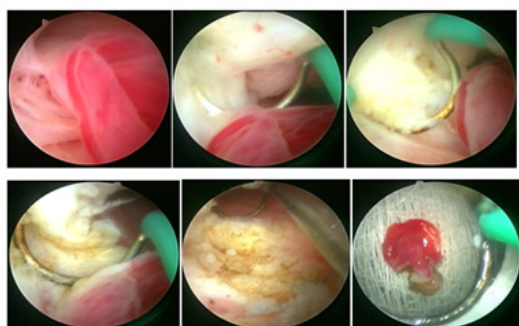


Figure 2: Office endocervical polypectomy with miniresectoscope.

A large number of submucous fibroids can be removed at the same time of diagnosis. In this case, the use of scissors, sectioning around the myoma, until reaching the pseudocapsule is the beginning of the procedure. When the pseudocapsule is reached, moving towards the uterine fundus with the hysteroscope and releasing the myoma from myometrium with scissors, the compressed myometrium pushes the nodule to the uterine cavity, releasing the myoma with minimal discomfort or bleeding (Figure 3). The release is made progressively, starting laterally, so that there is mobilization of the nodule, leaving the central portion of the myoma for the end, culminating with enucleation. In cases of smaller myomas, it will be possible to remove it from the uterine cavity right after enucleation, in the larger ones, leaving it in the cavity for future spontaneous expulsion will not bring any problem to the patient, sometimes only menstrual cramps [3-6]. The limits are the patient's ability to tolerate the procedure, wider base, fibroids larger than 4 cm, location in the fundal and cornual regions, the same as in the Lasmar classification [7].

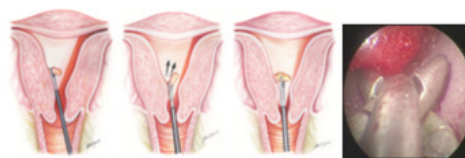


Figure 3: Office endometrial polypectomy with forceps.

Likewise, with the mini-resectoscope, endometrial polypectomy and myomectomy can be performed. With the semicircle loop, the polypectomy should be done addressing the loop directly to the base of the endometrial polyp, moving the loop in the fundus-cervix Direction. The polyp is released from the uterine wall, which can be removed whole, being apprehended between the resection loop and the surgical shirt, or sliced and removed from the same form. In fibroids, the Collins loop should be used, making the section around the fibroid, until reaching the pseudo capsule and then releasing the fibroid from the uterine wall, with the loop without energy, in the cervix-fundus direction, starting the release by the lateral part, leaving the central part for the end until the enucleation of the myoma (Figure 4). The removal of the fibroid can be performed, with or without slicing, depending on the volume of the nodule, penetrating the Collins loop on the surface of the lesion, placing it between the loop and the resectoscope, bringing the whole set, or leaving the nodule for future spontaneous expulsion.

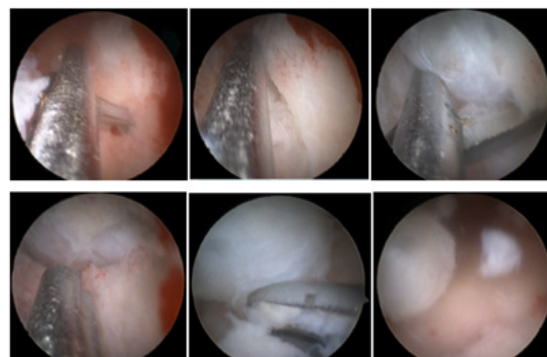


Figure 4: Office myomectomy with scissors.

When the possibility of office hysteroscopic surgery is increased by this approach, it is done safely because it will have less operative time, less bleeding, less chance of perforation and absorption of the

distension medium. As with any new technique, it is advisable to start with smaller lesions and smaller bases, progressing step by step. It is always possible to try to approach the base of the lesion to remove it and, if not possible, you can stop, without any risk to the patient, and schedule it to be performed in the operating room (Figure 5).

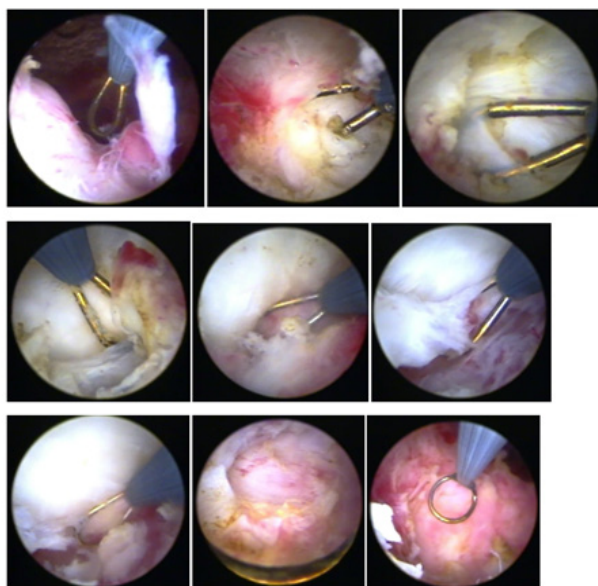


Figure 5: Office hysteroscopic myomectomy with miniresectoscope.

Hospital Hysteroscopy

In the operating room, the approach to the base of the lesion follows the same principle as the office procedure, but with different instruments. In polyps, with the use of the semicircular loop, directed directly to the base of the lesion, in the fundus-cervix direction, starting at the extremities, leaving the middle of the lesion for the end, sometimes in three to four sections, the endocervical or endometrial polyp will be all released from the wall, being then sliced to leave the cavity. In the operating room, there are no limits to polypectomy with this technique of direct approach to the base.

In endometrial polypectomy, it can be performed with the semicircle loop, without energy, making cervix-fundus movements, sliding the loop on the endometrium, close to the insertion of the polyp base, also starting laterally, to decrease the base, leaving the center for the end (Figure 6). This is an excellent technique for patients who wish to become pregnant, as the procedure is without energy or with little thermal damage.

Submucous fibroids are approached with the Collins loop, encircling the entire fibroid until reaching the pseudocapsule, similar to what happens in abdominal, laparoscopic and robotic myomectomy. Likewise, with the parallel to the uterine loop, releasing the myoma from the pseudocapsule wall, sectioning only the fibrous bundles, aided by pushing the nodule through the resectoscope. The release of the myoma from the pseudocapsule should also be initiated by the lateral part, leaving the release of the central portion after the lateral release. With the use of energy, it is possible to punctually cauterize the vessels, leaving the myoma fragmentation after its complete or almost complete release (Figure 7). The limits are the same as those of the Lasmar Classification, and in fibroids larger than 5 cm, it may be necessary to section it before total release, so that enucleation is possible [1,8,9].

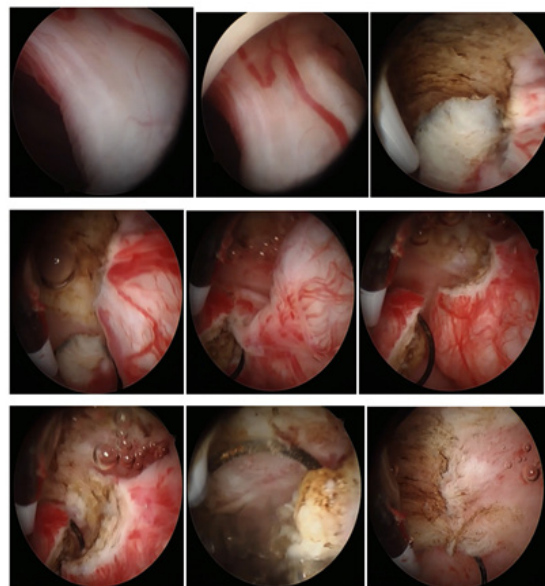


Figure 6: Hospital polypectomy with resectoscope.

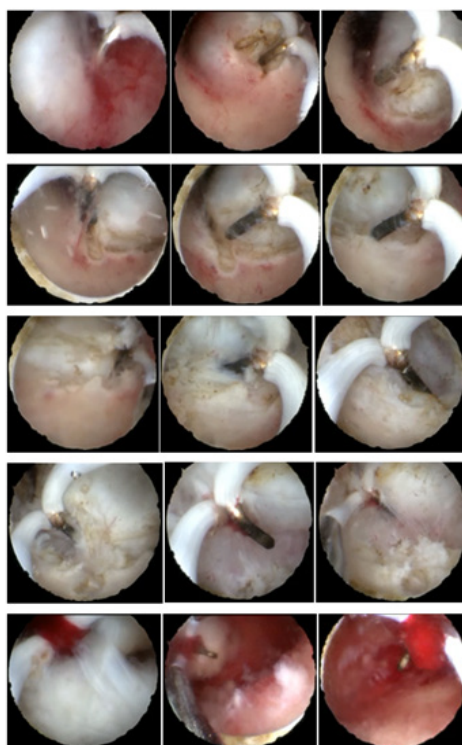


Figure 7: Hysteroscopic myomectomy with resectoscope and collins loop.

Conclusion

The approach to the base of the lesion, in addition to expanding outpatient hysteroscopic surgery, decreases operative time, bleeding, absorption of the distension medium, improves the vision of the operative field and brings the main surgery time to the beginning of the surgery. This technique reduces the risk of perforation, and, if it occurs, it will happen without using energy and reduces the possibility of overload, making the surgery safer.



This technique also has the advantage of being able to be used with all types of instruments, tweezers, scissors, resectoscope, mono or bipolar, LASER and morcellator. Like any new technique, it is oriented to start with lesions of smaller base size and dimensions. The basis of hysteroscopy is the basis of the lesion for both diagnosis and surgical treatment.

References

1. Lasmar R, Lasmar B (2021) Histeroscopia: Técnica E Arte - 1ªED.
2. Lasmar RB, Lasmar BP (2021) Hysteroscopic management of intrauterine benign diseases. *Minim Invasive Ther Allied Technol* 30(5): 263-271.
3. Lasmar RB, Lasmar BP (2018) Limiting Factors of Office Hysteroscopic Myomectomy. *Hysteroscopy*.
4. Cramer SF, Patel A (1990) The frequency of uterine leiomyomas. *Am J Clin Pathol* 94: 435-438.
5. Lasmar RB, Lasmar BP (2016) The role of leiomyomas in the genesis of abnormal uterine bleeding (AUB). *Best Pract Res Clin Obstet Gynaecol* 40: 82-88.
6. DI Spiezio Sardo A, Ceci O, Zizolfi B, Nappi C, Bettocchi S (2016) Office myomectomy. *Minerva Ginecol* 68(3): 321-327.
7. Lasmar RB, Barrozo PR, Dias R, Oliveira MA (2005) Submucous myomas: a new presurgical classification to evaluate the viability of hysteroscopic surgical treatment--preliminary report. *J Minim Invasive Gynecol* 12(4): 308-311.
8. Lasmar BP, Lasmar RB, Pillar C (2013) Office hysteroscopic cervical myomectomy. *Gynecol Surg* 10: 219-221.
9. Haimovich S, López Yarto M, Urresta Ávila J, Saavedra Tascón A, Hernández JL, et al. (2015) Office hysteroscopic laser enucleation of submucous myomas without mass extraction: a case series study. *Biomed Res Int* 2015: 905204.

