

Video Article



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Hysteroscopic myomectomy without anesthesia

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Objective

Scarce literature about myoma removal without anesthesia has been published. The aim of this paper is to evaluate the feasibility of a new alternative for a hysteroscopic myomectomy in a conventional office setting, without need for anesthesia.

Methods

Step-by-step description of the surgical technique has been provided, based on video images. An office hysteroscopy was performed in a Gynecological Endoscopy Department of a tertiary European hospital.

Results

A 49-year-old woman was referred for management of severe hypermenorrhea. Consent and approval were received from the patient and the institutional review board, respectively. The introduction of a Truclear® hysteroscopic polyp morcellator of 5.5 mm with optic of 0 degrees into the uterine cavity did not require any kind of anesthesia or cervical dilatation. The use of saline flow helped distend the cavity and identify a submucosal myoma. Under direct vision, a full myomectomy was performed via mechanical energy with continuous cutting movements, without any complication. After the procedure was completed, the excised material was aspirated through the device into a collecting pouch. A successful complete morcellation of a Type-0 submucosal leiomyoma with a polyp morcellator device was performed in an outpatient setting. Good medical results, good tolerance by the patient besides lower surgical risks due to mechanical instead of electrical energy are shown.

Conclusion

In conclusion, this video demonstrates that a hysteroscopic myomectomy can be performed successfully in office with lower risk of complications from the procedure and without use of general anesthesia besides good tolerance by the patient.

Keywords: Morcellation; Endoscopy; Hysteroscopy; Uterine myomectomy; Leiomyoma

Uterine fibroids are the most common benign tumors in women; prevalence ranges from 30% to 80% depending on the age of the patient [1,2]. Submucosal myomas represent 5–16% of all uterine fibroids [3]; they grow beneath the uterine lining and can penetrate into the uterine cavity, causing abnormal menstrual bleeding, pelvic pain, infertility, or other symptoms [4].

The classical surgical treatment for uterine fibroids is a hysteroscopic myomectomy under anesthesia with a mono or bipolar resector and requiring prior cervical dilatation [5,6]. However, using these devices could result in complications, such as burns, uterine perforation, massive absorption of the distension medium, or air emboli.

The latest trend in endoscopic surgery involves performing

less aggressive procedures in the office with thinner instruments and without anesthesia. Therefore, newer devices

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based on mechanical action have been designed, including hysteroscopic morcellators, which require a shorter learning curve and are much safer for the patient [7-9].

Morcellators, designed to perform hysteroscopic myomec-tomies, have a diameter of 9 mm and require prior cervical dilation under anesthesia. However, Smith & Nephew (Lon-don, UK) have currently designed a 5.5-mm Truclear® morcel-lator for hysteroscopic mechanical morcellation in the office that can be used for removal of polyps and other soft tissues without requiring cervical dilation or anesthesia [9,10].

Besides other advantages, this new morcellator provides for non-reliance on anesthesia or cervical dilation, thereby lead-ing to positive outcomes in patients who undergo hystero-scopic myomectomy due to infertility or multiple miscarriages [11]. This new device works on mechanical energy, instead of electrical energy, and involves continuous cutting movements and aspiration, thus reducing the risk of complications, such as burns, uterine perforation, massive absorption of glycine, or air emboli [8,12,13]. In addition, compared to the classical resectoscope, the learning curve associated with this morcel-lator is shorter and easier [7].

The objective of this study is to demonstrate the removal of 2-cm submucosal myoma without the need for cervical dilatation or anesthesia with a 5.5-mm Truclear® morcella-tor. Herein, we present a clinical case in which hysteroscopic myomectomy was performed using a 5.5-mm Truclear® in the office without anesthesia or any complication.

We report a case of a 49-year-old woman referred to the Hysteroscopy Unit of the University Hospital of Vall d'Hebrón for severe hypermenorrhea and a 2-cm endometrial polyp. A diagnostic hysteroscopy was performed using the 5-mm diagnostic hysteroscope of Bettocchi and a polypoid forma-tion was identified at the posterior uterine fundus. The "see and treat" procedure was performed under hysteroscopic and ultrasonographic suspicion of an endometrial polyp. The morcellation technique was started using the 5-mm Truclear® morcellator at 1,500 revolutions per minute (rpm) and with discontinuous cutting movements, according to the usual surgical practice, without cervical dilation or anes-thesia. During the morcellation process, a soft surface layer was removed, and a hard and fibrous tissue was observed below. The revolutions were reduced to 800 rpm and the morcellation technique was changed to continuous cutting movements. The morcellation lasted 8 minutes. At the end of the morcellation, a nutrient vessel of the formation was

identified. The consistency of the tumor, the bleeding pat-tern, and the precise morcellation technique led us to believe that we encountered a Type-0 submucosal myoma, instead of an endometrial polyp. Complete morcellation of the tissue was achieved, with very good patient tolerance throughout the procedure. The histological analysis of the morcellated tissue confirmed that it was a leiomyoma covered by secre-tory endometrium.

The great progress in new hysteroscopic tools over these years has allowed us to develop more efficient, precise and safer techniques, making possible the performance of a myo-mectomy without anesthesia.

We should consider submucosal myomas as those that could be hysteroscopically morcellated using a thinner mor-cellator if the tissue is sufficiently soft. Therefore, this new device would allow surgeons to perform a safer and more effective procedure that has a lesser learning curve, shorter surgical time and lower rate of complications during a myo-ma removal compared to other conventional electrical energy devices.

In conclusion, innovation in new endoscopic devices will probably open newer, safer, and more efficient ways to treat or remove the most common benign tumors in women.

Conflict of interest

No potential conflict of interest relevant to this article was reported.

Ethical approval

This study was approved by the institutional Human Re-search Ethics Committee and the Institutional Review Board and performed in accordance with the principles of the Declaration of Helsinki. Patient written informed consents were obtained. This study was registered at Hospital Univer-sity Vall d'Hebrón Review Board (Clinical Trial Registry No. PR(AMI)132/2016).

Patient consent

The patients provided written informed consent for the pub-

lication and the use of their images.

Video clip

Video can be found with this article online at <https://doi.org/10.5468/ogs.2019.62.3.183>.

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