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## VIDEO ARTICLE

# The Invisible External Cervical Os. Tips and Tricks to Overcome this Challenge during In-Office Hysteroscopy

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**ABSTRACT Objective:** Hysteroscopy is considered the gold standard technique for the diagnosis and management of intrauterine pathology allowing to “see and treat” patients in 1 session if desired [1–3]. Pain and the inability to enter the uterine cavity are the most common limitations of hysteroscopy, especially when performed in an office setting [4–7]. Cervical stenosis is a common hysteroscopic finding frequently encountered in postmenopausal women, especially in patients with a history of cervical procedures such as cone biopsy [8]. It represents a challenge even for the most expert hysteroscopist. Overcoming the stenosis of the external cervical os is technically more demanding than facing the obliteration of the internal os. The aim of this video article is to illustrate the use of simple techniques that allow the hysteroscopist to safely identify the location of the external cervical os and to overcome the difficulties in entering the uterine cavity during in-office hysteroscopy in patients with severe cervical stenosis including those with complete obliteration of the external cervical os. These techniques are easy to adopt and can be used in different clinical situations in which the hysteroscopic evaluation of the uterine cavity is needed in women with severe cervical stenosis.

**Design:** A series of videos of challenging cases with severe cervical stenosis with complete obliteration of the external cervical os are presented that demonstrate maneuvers to properly identify and enter the cervical canal, unfolding key aspects of the procedure. Tips and tricks to facilitate the adoption of these useful maneuvers into clinical practice are highlighted.

**Setting:** In-office diagnostic hysteroscopy was performed using a 5-mm rigid continuous flow operative hysteroscope. Patients were placed in a dorsal lithotomy position. The vaginoscopy “no touch” technique was used [9]. No anesthesia or sedation was administered to any of the patients. Normal saline was used as distention media.

**Interventions:** Taking advantage of the magnification provided by the hysteroscope, the location of the external cervical os was determined. In cases in which the external cervical os was not clearly recognized, the cervix was gently probed with the use of the uterine palpator, grasper, or scissors (Fig. 1). Recognition of the landmarks of the cervical canal provides reassurance of the adequate identification of the external cervical os and facilitates the use of the correct plane of dissection that leads into the uterine cavity (Fig. 2). Additional maneuvers that are useful to navigate the endocervical canal to overcome stenosis of the internal cervical os are also illustrated.

**Conclusion:** The combination of a delicate technique and operator experience aids in overcoming the challenge of cervical stenosis in an office setting. Adopting the presented tips and tricks to enter the uterine cavity in the presence of severe cervical stenosis will reduce the rate of failed hysteroscopic procedures, decreasing the need to take patients to the operating room and the use of general anesthesia. *Journal of Minimally Invasive Gynecology* (2021) 28, 172–173. © 2020 AAGL. All rights reserved.

**Keywords:** Cervical stenosis; Menopause; Intra-cervical adhesion’s

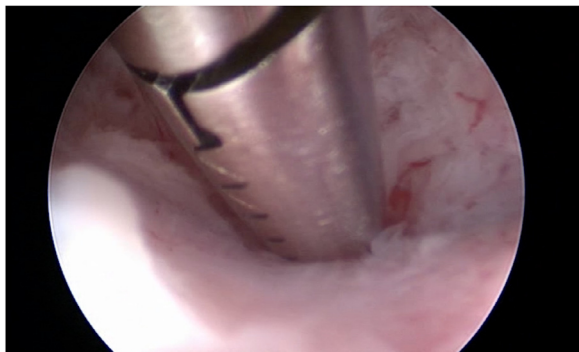
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**Fig. 1**

Hysteroscopic grasper probing the stenotic cervical os.

**Fig. 2**

Appreciate the light blue color revealing the location the of the endocervical canal.



## Supplementary materials

Supplementary material associated with this article can be found in the online version at <https://doi.org/10.1016/j.jmig.2020.05.027>.

## References

1. Bettocchi S, Nappi L, Ceci O, Selvaggi L. What does 'diagnostic hysteroscopy' mean today? The role of the new techniques. *Curr Opin Obstet Gynecol*. 2003;15:303–308.
2. Di Spiezio Sardo A, Florio P, Fernandez LM, et al. The potential role of endometrial nerve fibers in the pathogenesis of pain during endometrial biopsy at office hysteroscopy. *Reprod Sci*. 2015;22:124–131.
3. Di Spiezio Sardo A, Taylor A, Tsirkas P, Mastrogamvrakis G, Sharma M, Magos A. Hysteroscopy: a technique for all? Analysis of 5,000 outpatient hysteroscopies. *Fertil Steril*. 2008;89:438–443.
4. Cicinelli E. Hysteroscopy without anesthesia: review of recent literature. *J Minim Invasive Gynecol*. 2010;17:703–708.
5. Wortman M. Instituting an office-based surgery program in the gynecologist's office. *J Minim Invasive Gynecol*. 2010;17:673–683.
6. Wortman M. Pain management for office-based surgery: expanding our flight envelope. *J Minim Invasive Gynecol*. 2012;19:143–145.
7. Wortman M, Daggett A, Ball C. Operative hysteroscopy in an office-based surgical setting: review of patient safety and satisfaction in 414 cases. *J Minim Invasive Gynecol*. 2013;20:56–63.
8. Bettocchi S, Bramante S, Bifulco G, et al. Challenging the cervix: strategies to overcome the anatomic impediments to hysteroscopy: analysis of 31,052 office hysteroscopies. *Fertil Steril*. 2016;105:e16–e17.
9. Bettocchi S, Selvaggi L. A vaginoscopic approach to reduce the pain of office hysteroscopy. *J Am Assoc Gynecol Laparosc*. 1997;4:255–258.