# Use of the 3.8 mm Compact Hysteroscope during Un-sedated Hysteroscopy in the Office Setting

Techniques by DR. N. EDWARD DOURRON

## Introduction

Office hysteroscopy is a safe and simple procedure that allows the physician to conveniently diagnose and treat uterine pathology. The benefits for both the patient and the physician include a more timely diagnosis while affording the convenience of not going to a surgery center or hospital or receiving anesthesia. Office hysteroscopy allows for brilliant, real-time visualization and immediate conversion from a diagnostic procedure to an operative procedure for simple adhesions, small polyps or a small septum. With a conscious patient, you are able to show a live video of the patient's uterine cavity which is both informative and distracting from any mild discomfort she may experience. The average duration of a diagnostic procedure is 45 seconds. Even if an operative component is necessary, the office hysteroscopy rarely lasts more than 2-3 minutes.

I perform office hysteroscopy on all patients with a history of recurrent pregnancy loss and patients preparing for IVF with embryo transfer. This approach allows me to investigate any suspicion of pathology seen by ultrasound. Office hysteroscopy is also the best way to evaluate abnormal uterine bleeding and allows for a visually directed biopsy.

# **Pre-procedure Preparation:**

- Prep the patient with 600 800 mg lbuprofen 1 hour before the appointment.
- Position the patient in the dorsal lithotomy position with an under buttocks drape and collection bag in place.
- Insert a single sided speculum and swab the cervix with a betadine cervical prep. In 95% of all cases, local anesthesia is not needed. Likewise, in 95% of cases a tenaculum or cervical dilation is not needed.

## **Procedure Technique:**

- Connect 500cc NaCl (warm) to the inflow port on the right of the 3.8 mm Compact Hysteroscope.
  The NaCl will be used as distension media with a pressure bag and cysto tubing.
- Connect K-50 tubing to the outflow channel on the left using a hemostat on the wing as an anchor.
  Place the end of the tubing in the bag of the under buttocks drape.
- If the use of scissors is anticipated, pre-load a 5 Fr. scissor into the 5 Fr. operative channel for convenience.
- Partially open both the inflow and outflow valves to allow for a slow, steady stream of distension fluid to exit the tip of hysteroscope.
- Ensure that all of the air bubbles are
  - out of the inflow tubing and inform the patient that she may experience some brief, mild uterine cramping.
- Insert the tip of the hysteroscope into the external os of the cervix. (see image 1)



Image 1

- To improve patient comfort, remove the single-sided speculum. This will also allow for greater angling of the hysteroscope to negotiate passage through the cervical canal.
- While in the cervix, examine the cervical mucous glands and identify any cervical adhesions or polyps.
- Once you cross the internal os of the cervix, a panoramic view of the uterine cavity will be available. For increased patient comfort, use the lowest pressure possible that still allows for clear visualization. (see image 2)
- If the cervical canal has adhesions or is too stenotic, scissors can be used to facilitate entry into the uterine cavity. (see image 3)
- Advance the hysteroscope to the fundus of the uterus and identify any uterine pathology such as a septum, polyp, adhesions or submucous myomas.



Image 3

- Use the 30° angle of the hysteroscope to better view both the right and left tubal ostia. Identify if the ostia are open or if any polyps or adhesions are blocking the ostia.
- Capture 4 hysteroscopic photos including the right and left tubal ostia, fundus and a panoramic view of the entire endometrial cavity.
- Gently remove the hysteroscope. The procedure is complete.

# **Operative Options:**

#### **POLYPS**

Patients that have small polyps can have them removed using the 3.8 mm Compact Hysteroscope and a 5 Fr. scissor and grasper. (see image 4) It is important to remove



Image 4

the entire hysteroscope from the endometrial cavity when removing the polyp as the polyp is often larger than the 5 Fr. operating channel of the hysteroscope.

#### **ADHESIONS**

 Office hysteroscopy with the 3.8 mm Compact Hysteroscope and a 5 Fr. scissor can be very beneficial in treating Asherman's syndrome patients that often have some reformation of adhesions after operative



Image 5

hysteroscopy under anesthesia. Since electrocautery is not used in this hysteroscopy approach, the adhesion reformation rate is diminished. (see image 5)

■ In some cases, especially cases of severe Asherman's syndrome, patients may need a series of 2-3 hysteroscopy procedures to restore the endometrial cavity to normal. From an economic and patient satisfaction prospective, it is much easier and more economical for the patient to have a series of 2-3 follow-up office hysteroscopy procedures than to undergo a more invasive and expensive follow-up hysteroscopy under anesthesia at an outpatient surgery center or hospital.

#### SEPTUM

- If a small uterine septum is discovered, it can be resected using the 3.8 mm Compact Hysteroscope and a 5 Fr. scissor. (see image 6)

- After performing a resection of Image 6 a small uterine septum, the inflow and outflow of the distension media to the hysteroscope can be turned off. This decreases intrauterine distension pressure which can allow better visualization of blood flow at the fundus and base of the resected septum. This allows you to have a more accurate evaluation of blood flow at the fundus of the uterus to allow you to stop the septum resection or guide you to continue to resect the septum further.
- In cases of a large uterine septum which has been resected through an operative hysteroscopy under anesthesia, a follow-up office hysteroscopy is recommended one month later to identify and resect the common fundal reformation of the upper 20% of the septum. This can easily be resected with a 5 Fr. scissor without anesthesia.

## MYOMA

- Office hysteroscopy can identify any distortion of the endometrial cavity by an intramural myoma to allow for the planning of a more extensive surgery such as a robotically assisted laparoscopic myomectomy.
- After operative hysteroscopy to remove a large submucous myoma or a robotically assisted laparoscopic myomectomy of a transmural myoma in which the uterine cavity is entered, I recommend waiting two months before performing an office hysteroscopy with the 3.8 mm Compact Hysterscope to confirm the uterine cavity has healed well and any adhesions that formed postoperatively can be lysed with a 5 Fr. scissor without any anesthesia.

#### REPRODUCTION ASSISTANCE

- Müllerian anomalies can also be identified with the 3.8 mm Compact Hysterscope which allows for better planning of the definitive operative hysteroscopy/operative laparoscopy procedure.
- All patients preparing for IVF or a frozen embryo transfer cycle can have a uterine cavity evaluation with the 3.8 mm Compact Hysteroscope in the office. This evaluation is much more informative than a saline infusion sonohysterogram (SIS) or ultrasound.
- Although a flexible hysteroscope allows for an accurate evaluation of the endometrial cavity, it lacks the operative capability of the 3.8 mm Compact Hysteroscope. This functionality allows for some abnormalities such as a small septum, adhesions or polyps to be corrected at the time of diagnosis which is more convenient for both the patient and surgeon.

## **Discussion**

I choose the Richard Wolf 3.8 mm Compact Hysteroscope for my office hysteroscopy procedures because it has both inflow and outflow which allows for a controlled distension pressure thereby minimizing any patient discomfort. The straight 5 Fr. operating channel also allows for simple operative hysteroscopy procedures, saving the patient time and money. This procedure can be quite cost-effective to the physician as it allows for a smoother flow of patients in the office without the inconvenience of having to leave the office to perform hysteroscopies in a surgery center or hospital.



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