HOSPITAL PHYSICIAN®

OBSTETRICS AND GYNECOLOGY BOARD REVIEW MANUAL

STATEMENT OF EDITORIAL PURPOSE

The *Hospital Physician Obstetrics and Gynecology Board Review Manual* is a peer-reviewed study guide for residents and practicing physicians preparing for board examinations in obstetrics and gynecology. Each manual reviews a topic essential to the current practice of obstetrics and gynecology.

NOTE FROM THE PUBLISHER:
This publication has been developed without involvement of or review by the American Board of Obstetrics and Gynecology.

Hysteroscopy

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PROCEDURE AND HYSTEROSCOPIC EQUIPMENT

Hysteroscopy is a minimally invasive procedure that can diagnose and treat many endocervical and intrauterine abnormalities (**Table 1**). Hysteroscopy has changed the practice of gynecology by improving the physician's ability to manage conditions of the endocervix, endometrium, and tubal ostia, but knowledge and skills are necessary to optimize the yield and safety of this procedure. Contraindications to hysteroscopy are shown in **Table 2**.

This manual provides an overview of hysteroscopic equipment and describes the major diagnostic and operative procedures performed using this technology, including perioperative care and potential complications and their prevention.

OVERVIEW OF PROCEDURE

Prior to hysteroscopy, inspection of the vulva and bimanual examination are necessary to determine uterine position and to exclude adnexal or pelvic tenderness. Knowledge of uterine position helps to orient placement of the hysteroscope and decrease the risk of uterine perforation.

The traditional technique of hysteroscope insertion involves a speculum and, if necessary, a tenaculum. After the speculum is inserted into the vagina, the cervix is cleansed with an antiseptic solution. The distal end of the hysteroscope is then inserted into the cervix, followed by panoramic inspection of the endocervix. The hysteroscope should be advanced into the uterine cavity under direct visualization with distending medium and without undue force. Once the hysteroscope is inside the uterine cavity, the topography of the endometrial cavity and tubal ostia is assessed. If abnormalities are noted, an operative hysteroscope equipped with specialized instruments may be used to obtain targeted biopsies or to remove intracavitary lesions.[1]

The vaginoscopic or "no touch" technique of hysteroscope insertion has increasingly been advocated.[2,3] Without use of a speculum, the hysteroscope is placed into the lower vagina, distending medium is introduced, and the hysteroscope is advanced gently into the cervical canal.

HYSTEROSCOPES

The basic hysteroscope is a thin optical telescope or fiberoptic device connected to a light source. A video camera may be attached at the proximal end of the hysteroscope. Video monitoring and photography allow the patient to observe the procedure and provide photo documentation for the clinical record. For diagnostic hysteroscopy, a low-power light provides adequate illumination. If a video camera is used, a higher-power xenon or halogen light source is necessary.

Hysteroscopes can be divided into 2 types, flexible and rigid, which come in varying diameters. Thin, flexible hysteroscopes tend to be preferred for office-based diagnostic hysteroscopy,[4] whereas rigid hysteroscopes are more commonly used for operative hysteroscopy. Resectoscopes are operative hysteroscopes equipped with specialized devices for performing surgical procedures.

Flexible Hysteroscopes

Flexible (fiberoptic) hysteroscopes range in diameter from 3 mm to 5 mm, generally do not require cervical dilation, and have a longer working length than rigid hysteroscopes. They also have a bidirectional and wide angle of view spanning 120 to 180 degrees. The smaller outer diameter (OD) compared to a rigid hysteroscope is advantageous in patients with nulliparity or prior cervical conization, and the longer working length is helpful in morbidly obese patients. The distal tip of the flexible hysteroscope can easily navigate around intracavitary masses.

Although flexible hysteroscopes do not have sheaths, some larger-diameter scopes have ancillary ports that accommodate flexible operative instruments, permitting directed biopsy, retrieval of foreign bodies, or lysis of filmy adhesions. Thus, flexible hysteroscopes may have a role in the ambulatory surgical center or operating room, particularly in cases in which dilation is difficult due to marked cervical stenosis. Once the endocervix is visualized, the surgeon can visually determine the correct path of dilation with the flexible hysteroscope, rather than blindly placing a dilator.

Rigid Hysteroscopes

Rigid hysteroscopes range from 2.7 mm to 10 mm