 CHAPTER 27

Principles of Surgical Treatment in Gynecology

Gynecologic surgery can be conveniently divided into diagnostic and therapeutic procedures.

Diagnostic Procedures

The most frequently performed diagnostic procedure is dilatation and curettage (D & C). Anesthesia is required. The size of the uterine cavity is measured by a uterine sound and abnormalities such as submucous myomas and malformations are outlined. After dilatation of the cervical canal, usually with Hegar dilators, the endometrium is scraped with a curette, which is available in various sizes. The material obtained is submitted for histologic diagnosis.

Most frequent indications are: pathological uterine bleeding and diagnosis of intrauterine lesions (page 320).

Suspicion of adenocarcinoma of the endometrium requires a so-called fractional curettage, in which cervical canal and endometrial cavity are scraped separately in order to identify the extent of the lesion (whether it is in the corpus only, the cervix only, or both). Material from both scrapings are submitted separately to the pathologist. In some instances, the diagnostic procedure is also therapeutic, as in the case of an endometrial polyp (page 315).

Cone biopsy is a most important procedure to identify the character and extent of lesions (cervical cancer and precancerous lesions) around the squamocolumnar junction (page 292).

Laparoscopy is the inspection of intraabdominal organs through an endoscope inserted into the peritoneal cavity. Techniques have recently been developed to perform tubal interruptions through the laparoscope.

Culdocopy is another method of inspection through the cul-de-sac. A culdoscope is similar to but shorter than the laparoscope. It is inserted through the cul-de-sac. Frequent indications for both laparoscopy and culdoscopy are uterine or ovarian malformations, sterility, unidentified tumors of the adnexa, endometriosis, pelvic tuberculosis, and pelvic inflammatory disease.

Insertion of a needle through the cul-de-sac is called culdocentesis. The aspiration of dark uncotted blood indicates intraabdominal bleeding, as in ruptured ectopic pregnancy. If frank pus is obtained, the
diagnosis of an abscess is confirmed. A modified form of culdocentesis is cul-de-sac lavage for obtaining tumor cells.

The surgical incision of the posterior fornix of the vagina and sharp entrance into the peritoneum is called colpotomy. It also allows inspection of the tubes and ovaries. Occasionally an ectopic pregnancy can be removed by this procedure. More recently it has provided surgical access to the tubes for ligation or resection.

**Therapeutic Surgical Procedures**

The therapeutic procedures are performed to achieve two goals:

1. removal of diseased organs or parts of organs
2. restoration of function (plastic procedures)

Modern anesthesia and improvement in postoperative care have reduced surgical mortality and morbidity to a degree that patients at extreme risk are becoming increasingly uncommon. Elderly patients in particular are now able to tolerate extensive procedures well, especially through the vaginal route.

Despite the reduction in surgical risk, every abdominal operation requires a clear indication. Such a procedure is indicated only if the benefit to the patient exceeds that of conservative measures.

The risk of a given procedure is determined by a statistical evaluation of postoperative mortality and morbidity. Statistics, however, will be only a guide. The decisions regarding indications and types of procedures, rather than mere technical skill, determine the success of the surgeon.

Gynecological surgery can be performed by two routes, vaginal and abdominal. In general, the vaginal route has a lower morbidity and mortality in the hands of a experienced surgeon. The disadvantage is related to the greater difficulty in identification of anatomical structures and the smaller operative field. The abdominal approach allows greater access and better anatomical dissection, although operative trauma may be increased. Furthermore, a visible scar usually results and the anesthesia has to be deeper.

Certain procedures are performed preferably or exclusively by the abdominal route:

1. removal of large myomas exceeding the size of 8 weeks' gestation or myomectomy; plastic correction of most uterine anomalies
2. ovarian tumors
3. conservative operations for endometriosis or tubal restoration
4. operations for pelvic inflammatory disease
5. operations after previous abdominal surgery
6. most operations for cancer, especially radical procedures
7. unclear findings on pelvic examination