Surgical Management of Endometriosis

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Endometriosis is a benign disease defined by the presence of endometrial glands and stroma outside of the uterus and is associated with both pelvic pain and infertility. The ectopic endometrial tissue is usually located in the pelvis but can appear anywhere in the body. Endometrioma is an ovarian mass arising from the growth of ectopic endometrial tissue within the ovary forming a pseudocyst. It is commonly seen in women of reproductive age who may wish to preserve their ovarian function. Surgical treatment is subjected to a high recurrence rate and its employment may cause a significant reduction in ovarian reserve that causes a disaster for younger women who undergo assisted conception. Laparoscopic excision of ovarian endometrioma prior to IVF does not offer any additional benefit over expectant management (1).

Endometriosis should only be treated when either pain or infertility is a presenting symptom. As an incidental finding at the time of surgery, endometriosis does not require any medical or surgical treatment. The surgical management of endometriosis involves careful consideration of the indications for surgery, preoperative evaluation, surgical techniques, surgeon experience, and ancillary techniques and procedures.

Surgical management of endometriosis is indicated in the following groups.

1. Patients with pelvic pain
   a. who do not respond to decline, or have contraindications to medical therapy
   b. who have an acute adnexal event (adnexal torsion or ovarian cyst rupture)
   c. who have severe invasive disease involving the bowel, bladder, ureters, or pelvic nerves
2. Patients who have or are suspected to have an ovarian endometrioma
   a. Patients for whom the uncertainty of the diagnosis affects management (as with chronic pelvic pain)
   b. Patients with infertility and associated factors (i.e. pain or a pelvic mass)

A complete preoperative evaluation will assist for planning the surgical approach, the need for additional procedures and consultations. The value of a serum CA-125 test in preoperative detection of endometriosis is limited. Therefore, the test is not recommended routinely before the surgery but may be performed as part of the evaluation of an undiagnosed adnexal mass. Pelvic ultrasonography, particularly transvaginal is recommended when an adnexal mass is suspected from physical examination. Transrectal sonography, colonoscopy, barium enema, and MRI may also be useful to detect deeply infiltrating endometriosis of the bowel and rectovaginal septum in patients with dyschezia and in those with deep dyspareunia with nodularity on examination. Cystoscopy should be performed if there are cyclic bladder symptoms such as hematuria. Risks associated with surgery should be thoroughly discussed with the patient, and informed consent should be obtained and documented. Surgery may be either “conservative” or “definitive.” The goals of conservative surgical management are restoring normal anatomy and relieving pain. This approach is most often applied for women of reproductive age who wish to conceive in the future or avoid induction of menopause at an early age. Definitive surgery involves bilateral oophorectomy to induce menopause and may include removal of the uterus and fallopian tubes and, ideally, excision of all visible endometriotic nodules and lesions. Women who have significant pain and symptoms despite the conservative treatment, and do not desire future pregnancies and have severe disease, or undergo hysterectomy due to other pelvic conditions, such as fibroids or menorrhagia should be considered.

Deeply infiltrating endometriosis refers to lesions that penetrate 5 mm or more. The lesions are often multifo-
For women with endometriomas, excision rather than drainage or fulguration provides better pain relief, a re-
duced recurrence rate, and a histopathological diagnosis. It’s not recommended to perform laparoscopy in pa-
tients who desire fertility and have one or more following criteria:

- Endometriomas smaller than 3 cm in diameter
- Bilateral or multicystic endometriomas
- Central endometriomas
- Age of 35 or more
- History of previous laparoscopic surgery for endometriosis

In such cases, the decision about the treatment strategies should be made by an infertility expert, and the surgery must be performed by an infertility professional laparoscopist. In patients not seeking pregnancy, CHCs (cyclic or continuous) should be considered after surgical management of ovarian endometriomas (10-12).

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