

CHRONIC PELVIC PAIN

ENDOMETRIOSIS Is surgery the best treatment? ...
Teenagers get endometriosis, too ... Aromatase inhibitors

Surgery may not be the best option for diagnosis and treatment of endometriosis, one of the most common causes of chronic pelvic pain. Although laparoscopy has been the traditional approach, new findings show surgery may cause more adhesions than it removes.

Recent research has also focused on endometriosis in adolescents—and the lack of consensus on what treatment is best. Finally, aromatase inhibitors, a new class of hormone-based therapy, look promising for treatment of pain due to endometriosis.

Even adhesion-reducing surgery causes (and may worsen) adhesions

• **Surgery avoidance may be the best strategy for evading adhesions**

Parker JD, Sinaii N, Segars JH, Godoy H, Winkel C, Stratton P. Adhesion formation after laparoscopic excision of endometriosis and lysis of adhesions. *Fertil Steril.* 2005;84:1457-1461.

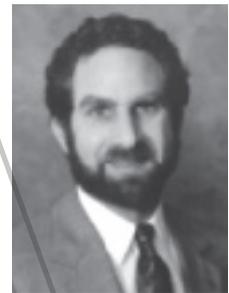
We have known for decades that surgery causes adhesions. The importance of this study is that it demonstrated that careful and thorough surgery designed to remove adhesions and endometriotic implants appears to make no difference in the presence of adhesions 2 years later, and might even worsen adhesions.

This NIH study evaluated 38 women with chronic pelvic pain attributed to endometriosis. At the time of an initial laparoscopy, the locations of endometriosis lesions and adhesions were recorded. All lesions and adhesions were excised using a neodymium-YAG laser, with meticulous hemostasis and careful tissue handling.

Ovaries were wrapped in an adhesion barrier (Interceed) after removal of endometriomas; adhesion barriers were otherwise not used. Second-look laparoscopy was performed 2 years later to assess the presence of adhesions.

At the initial surgery, 74% of the 38 patients had adhesions, and at the second-look operation, 82% of the patients had adhesions. Most of the adhesions found at the second operation were *not* at the original adhesion sites—they were at sites where endometriosis had been excised.

Eighteen endometriomas were excised at the first operation. Although



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FAST TRACK

Adhesions after surgery are inevitable, even with meticulous technique



ADHESIONS ARE A CONSEQUENCE OF PELVIC SURGERY, REGARDLESS OF HOW CAREFULLY SURGERY IS PERFORMED

ovaries had been wrapped in an adhesion barrier after excision of the endometriomas, operative site adhesions occurred at 15 of the 18 excision sites. Despite this apparent failure of a barrier to prevent ovarian adhesions, the authors speculat-

ed that use of an adhesion barrier after adhesiolysis and after resection of superficial lesions might have prevented some of the adhesions they saw at second-look surgery.

Do adhesions cause pain?

A question not addressed is the role of adhesions in pain; this study did not report pain results. Although the researchers stated that they assumed that adhesions can cause pain, randomized trials have not confirmed this belief.^{1,2} Even if adhesions do cause pelvic pain, surgery does not appear to be an effective way to reduce adhesions in the long run.

REFERENCES

1. Peters AAW, Trimbo-Kemper GCM, Admiral C, Trimbo JB. A randomized clinical trial on the benefit of adhesiolysis in patients with intraperitoneal adhesions and chronic pelvic pain. *Br J Obstet Gynaecol.* 1992;99:59-62.
2. Swank DJ, Swank-Bordewijk SC, Hop WC, et al. Laparoscopic adhesiolysis in patients with chronic abdominal pain: a blinded randomized controlled multi-centre trial. *Lancet.* 2003;361:1247-1251.

FAST TRACK

There is no evidence that progestins and GnRH analogs are less safe than OCs for endometriosis therapy in teens

Adolescents get endometriosis, too Should they have laparoscopy?

- Given the propensity of surgery to cause adhesive disease, the fertility of young women may be at risk

Song AH, Advicula AP. Adolescent chronic pelvic pain. *J Pediatr Adolesc Gynecol.* 2005;18:371-377.

Stavroulis AI, Saridogan E, Creighton SM, Cutner AS. Laparoscopic treatment of endometriosis in teenagers. *Eur J Obstet Gynecol Reprod Biol.* 2006;in press.

ACOG Committee on Adolescent Health Care. Endometriosis in adolescents. ACOG Committee Opinion No. 310. *Obstet Gynecol* 2005;105:921-927.

Evaluation and treatment of adolescents with chronic pelvic pain can be more challenging than the care of adults with this complaint. Song and Advicula encourage clinicians to consider endometriosis even in the very young adolescent, and they stress attention to the privacy of the adolescent and the importance of letting her decide whether an accompanying parent should be present during an examination.

It is unfortunate that laparoscopy early in the work-up is encouraged, without evidence of the effectiveness of surgery. Oral contraceptives and nonsteroidal anti-inflammatory drugs are recommended as empiric therapy, but progestins and gonadotropin-releasing hormone (GnRH) analogs are discouraged, although there is no evidence that progestins and GnRH analogs are less safe than oral contraceptives in this age group.

IMAGE: JENNIFER FAIRMAN

A number of conditions that cause chronic pelvic pain in adolescents are described, but missing are discussions of psychiatric disorders and fibromyalgia, which are important causes of chronic pain.

Stavroulis et al is the latest of anecdotal reports claiming that laparoscopic treatment of endometriosis in teenagers is safe and effective. In this retrospective review of case records of 31 girls younger than 21 years who underwent laparoscopy for chronic pelvic pain, no abnormalities were found in 36% and endometriosis was found in another 36%. The remainder had other findings, including some (ovarian cysts) that are not generally associated with chronic pain, and others (obstructed uterine horn) suggesting that endometriosis may have been missed. Six girls with severe endometriosis had surgical excision, and 5 of the 6 were described as improved after 19 to 112 months of follow-up.

As in most of the literature advocating surgical management of endometriosis, this study had no control group treated with placebo surgery or other therapies. In addition, all the young women who underwent surgery were treated postoperatively with hormonal therapy for an unspecified length of time, making it unclear how much of the pain relief was due to surgery.

■ What's wrong with these recommendations?

The ACOG Committee Opinion calls attention to the importance of considering endometriosis as a cause of pain in adolescents. The Opinion offers empiric therapy as an option for the management of young women with chronic pain believed to be due to endometriosis, but does a disservice in promoting laparoscopy as a superior method of diagnosis and treatment. The empiric therapy recommendation is marred by the statement that GnRH analogs should not be used in patients younger than 18 years, with surgery as the only option in this age group. The Committee goes on to recommend that if endometriosis is not visual-

ized at surgery, the patient should be referred for gastrointestinal or urologic evaluation and for pain management services.

Withholding GnRH analogs in women under age 18 is arbitrary and without scientific foundation. The Committee expresses the concern that these agents might interfere with mineralization during this time of maximal bone accretion, and points to the lack of studies of GnRH analog therapy in this age group; however, it is acknowledged that add-back hormone therapy prevents bone mineral loss in the general population of women treated with GnRH analogs.^{1,2}

Although the Committee is reluctant to recommend therapy because data from this age group are inadequate, it recommends laparoscopy despite the lack of data in this age group on either safety or effectiveness of surgery. The one study cited in support of the effectiveness of surgery³ was performed in adults, and compared laparoscopic excision to diagnostic laparoscopy, not to medical therapy. Finally, the Committee ignores danazol, a medication that continues to be useful for some patients.

Does surgery have more adverse consequences in adolescents than in adults? We don't know. Given the propensity of surgery to cause adhesive disease, however, the fertility of these young women may be at risk. It is particularly disappointing to see the Committee recommending evaluation for gastrointestinal and urologic disease *after* failed surgery.

The correct approach is the evaluation and treatment of the patient *before*, and preferably instead of surgery.⁴

REFERENCES

1. Hornstein MD, Surrey ES, Weisberg GW, Casino LA. Leuprolide acetate depot and hormonal add-back in endometriosis: a 12-month study. *Obstet Gynecol.* 1998;91:16-24.
2. Surrey ES, Hornstein MD. Prolonged GnRH agonist and add-back therapy for symptomatic endometriosis: long-term follow-up. *Obstet Gynecol.* 2002; 99:709-719.
3. Abbott J, Hawe J, Hunter D, Holmes M, Finn P, Garry R. Laparoscopic excision of endometriosis: a randomized, placebo-controlled trial. *Fertil Steril.* 2004; 82:878-884.
4. Peters AAW, van Dorst E, Jellis B, van Zuuren E, Hermans J, Trimbos JB. A randomized trial to compare 2 different approaches to women with chronic pelvic pain. *Obstet Gynecol.* 1991;77:740-744.

CONTINUED

FAST TRACK

The ACOG Committee Opinion does a disservice in promoting laparoscopy as superior to drug therapy for endometriosis in young women

Medical treatment: Aromatase inhibitors for endometriosis

- It is time for a controlled trial on the question of whether aromatase inhibitors are superior to placebo or other medical treatments for endometriosis

Hefler LA, Grimm C, van Trotsenburg M, Nagele F. Role of the vaginally administered aromatase inhibitor anastrozole in women with rectovaginal endometriosis: a pilot study. *Fertil Steril.* 2005;84:1033-1036.

Amsterdam LL, Gentry W, Jobanputra S, Wolf M, Rubin SD, Bulun SE. Anastrozole and oral contraceptives: a novel treatment for endometriosis. *Fertil Steril.* 2005;84:300-304.

It has been widely accepted for decades that endometriosis is estrogen-dependent. More recently, it has been suspected that ectopic endometrium contains aromatase enzyme, which can produce estrogens locally from circulating androgens. This possibility has led to the use of aromatase inhibitors for the treatment of endometriosis.

Two new studies report on the use of the aromatase inhibitor anastrozole, which is marketed for the treatment of breast cancer:

- **Dose too low?** Hefler and colleagues treated 10 patients with rectovaginal endometriosis, using a low dose (0.25 mg/day) of vaginal anastrozole, without much improvement in symptoms.

They suggested that the dose may have been too low.

- **Higher dose improved pain.** Amsterdam and colleagues reported that pain improved in 15 of 18 patients who used anastrozole at a dosage of 1 mg/day by mouth. An oral contraceptive was given for hot flash control and prevention of bone mineral loss.

These results, along with other reports in the literature, are encouraging. It is now time for a controlled trial to investigate whether aromatase inhibitors are superior to placebo or other medical treatments for endometriosis. ■

The author has been a consultant for TAP Pharmaceuticals.

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