“Clinical Management of Endometriosis”
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1. Although you indicated that systematic reviews concluded that surgical management of endometriomas has no benefit over expectant management with regard to assisted reproductive technology (ART) pregnancy rates, you also advised removal of endometriomas greater than 4 cm due to small risk of malignancy, improved transvaginal access to ovarian follicles, and low likelihood of spontaneous regression. Is there a role for transvaginal aspiration of endometriomas immediately prior to ovarian stimulation in preparation for in vitro fertilization (IVF), similar to simple cyst aspiration? If yes, is there a size limit? Is there a greater risk of a pelvic infection? Are there improved outcomes compared with laparoscopic excision?

Response from Drs. Falcone and Lebovic:
There is a paucity of evidence to support or refute the practice of transvaginal aspiration of endometriotic cysts prior to IVF. In 1991, Dicker et al compared pregnancy rates from IVF after aspiration in the same 37 patients who previously failed to conceive through IVF.1 This was not a randomized, controlled trial, and there are obvious limitations to such a study design. Nevertheless, they found a significantly higher number of retrieved oocytes and pregnancy rates in the IVF cycles following aspiration. Interestingly, Zhu et al have recently reported their retrospective study on single or repeated transvaginal ultrasound-guided ovarian endometrioma aspiration with a primary end-point of cyst recurrence.2 Unfortunately, those patients who subsequently underwent IVF were not included in their analysis. They used high negative pressures (200–400 mm Hg) during aspiration, and saline irrigation was avoided in
order to prevent cyst leakage. No antibiotic prophylaxis was utilized and no patient suffered any adverse effect. The lower limit on cyst diameter was 3 cm. They concluded that repetitive aspiration (up to seven times) led to lower recurrences. Again, IVF outcome was not included in this study. Prospective trials could help determine the utility of aspirating endometriomas prior to IVF.

References

2. Patients who fail to conceive with expectant management or a short course of empiric treatment of infertility following excision of endometriomas often develop recurrences of endometriomas. How do you manage a patient who is now considering IVF but has a 4-cm recurrent endometrioma?

Response from Drs. Falcone and Lebovic:
Despite the fact that such a cyst looks like a recurrence, one can’t be certain that this is not a rare occult malignancy. This ought to be discussed with the patient, although this possibility is probably not a convincing argument to undergo repeat surgery. As our article delineated, there are a few features of recurrent endometriomas that would favor surgical drainage or excision: pain management or assistance with transvaginal access during oocyte retrieval.

3. Are there any advantages of robotic surgery over conventional laparoscopic surgery for treatment of endometriosis symptomatic for chronic pelvic pain or infertility?

Response from Drs. Falcone and Lebovic:
There are only three case reports and one comparative trial on the use of robotics for surgical management of endometriosis. The comparative trial\(^1\) showed no advantage with the use of robotics over conventional laparoscopy, and use of the robot required longer operative times and the use of larger trocars.
References

4. What is the evidence for efficacy of acupuncture in the treatment of endometriosis-related chronic pelvic pain or subfertility?

Response from Drs. Falcone and Lebovic:
There are few endometriosis acupuncture studies investigating the effect of pain relief, and we know of none that address fertility as an endpoint. In the English language literature there are two randomized studies assessing the impact on pain. Wayne et al enrolled a limited number of adolescent women in a randomized sham-controlled trial over 8 weeks and found improved pain scores, although the gains were nonsignificant after 4 weeks of treatment.1 Rubi-Klein et al conducted a randomized sham-controlled cross-over trial with just over 100 women.2 Their results revealed a significant amelioration of pain after 5 weeks of treatment. More definitive trials are warranted.

References

5. When you surgically evaluate or treat a woman with endometriosis, what classification or description of subtypes do you use to document the extent and location of disease? Please provide examples of how those classifications or subtype descriptions inform more effective treatment of chronic pelvic pain and subfertility.

Response from Drs. Falcone and Lebovic:
The concept of a classification system has been suggested for several reasons. Communication between clinicians of extent of disease, prediction of the natural history of disease and response to therapy are just a few. A standard classification is important for research outcomes. The American Society for Reproductive Medicine (ASRM) scoring is the most widely used. However it is well known that this classification system does not effectively predict treatment outcomes.1
Since it has been used for so long and none other has been so extensively validated, it remains
the standard for classifying endometriosis.

References

6. Given the mechanisms by which endometriosis causes subfertility, why does superovulation and intrauterine insemination yield a benefit? Considering the positive effect of GnRHa treatment before IVF, should women with endometriosis undergoing superovulation and intrauterine insemination be treated with 3–6 months of GnRHa prior to ovarian stimulation?

Response from Drs. Falcone and Lebovic:
How superovulation and intrauterine insemination actually benefit fertility rates is purely speculative at this point. One could argue that controlled hyperstimulation protocols might compensate for diminished ovarian reserve seen with endometriosis. Unfortunately, there is no evidence to guide the use of GnRH agonist or oral contraceptive pretreatment in women about to undergo ovarian stimulation separate from IVF.

7. In young women undergoing definitive treatment (with ovarian conservation) for endometriosis-associated chronic pelvic pain, do you provide long-term adjunctive medical therapy to prevent recurrences? If so, what treatment do you use? How do you monitor patients who may develop recurrences, other than by report of symptoms and periodic examinations?

Response from Drs. Falcone and Lebovic:
We do not provide suppressive medical therapy after hysterectomy with excision of endometriosis with preservation of normal ovaries. Our own experience has shown that recurrence of symptoms is small in these patients. No monitoring other than what is appropriate for the age of the patient is necessary.

References