

## **Treatment for Endometriosis-Related Infertility**

Danazol, birth control pills, Lupron, Synarel, Zoladex, Depo-Provera and Norplant have not been proven effective as either primary or adjunctive therapy (combined with surgery) for endometriosis-related infertility. While the use of medical treatment may decrease inflammatory reactions making surgical correction easier and reduce endometriosis-related pain, use of these medications in patients with minimal disease is of no proven benefit in treating infertility.

Multiple studies have reported a 4-5 times improvement in fecundity (monthly chance of conception) with empirical treatment, superovulation combined with intrauterine insemination. (The medicines commonly used are Follistim®, Repronex®, Gonal F® and Bravelle®.)

While complete removal of all disease and restoration of normal anatomy should be the goal of any surgical treatment, aggressive surgery may result in post-operative adhesion (scar tissue) formation. The endoscopic surgeon may need to strike a balance between excising all visible disease and limiting the risk of adhesion formation. If surgical excision is incomplete or attempts at pregnancy are to be delayed, it is advisable to plan continuous hormonal suppression following surgery. (i.e. use Lupron) In women with distorted tubal-ovarian anatomy due to endometriosis, the first surgery is the most effective. Repeat surgical interventions are less effective at restoring fertility than the initial attempt, which is best performed by a skilled endoscopist. Endometriosis is generally considered a progressive disorder and aggressive management at the time of its discovery is appropriate.

Surgical treatment of endometriosis consists of cautery, coagulation, excision or vaporization. As most cul-de-sac endometriosis is generally deeper than it may at first appear, excision should be the treatment of choice. Vaporization of adhesions on the ovarian surface, bladder flap, and uterine peritoneum may be beneficial.

Treatment of ovarian endometriomas has included removal of the ovary, simple drainage, destruction of the cyst-lining with laser, bipolar electrosurgery, monopolar electrosurgery, and excision of the ovarian cyst. Although in many cases the cyst-lining can be stripped from inside the ovary during laparoscopy, in approximately 30% of the cases, this cannot be performed. In these cases, unless destruction of the lining is carried out, the endometrioma will likely reoccur.

Pregnancy rates following surgery generally range between 35-40% for severe endometriosis to 55-65% with milder disease. Surgical studies show that monthly pregnancy rates are as low as 3-6% per month following surgical treatment of this disease. Usually normal fertility can be achieved with ovulation induction and intrauterine insemination.

In patients with normal anatomy, it is reasonable to try 3 – 4 cycles of. If normal anatomy cannot be restored or the patient has not been successful with ovulation and intrauterine insemination, in vitro fertilization should be considered. In women with large endometriomas, removal of the ovarian cyst may be necessary prior to proceeding with in vitro fertilization.