Tubal Catheterization: A Low-Cost IVF Alternative?

BY KATE JOHNSON
Montreal Bureau

MIAMI BEACH — A simple tubal catheterization procedure, done at the time of diagnosis of proximal tubal occlusion during hysterosalpingography, can restore tubal patency and enable natural conception in a large percentage of women, according to one expert.

Transcervical tubal catheterization (TTC) should be offered first to infertile patients with unilateral or bilateral proximal tubal occlusion, but these patients are often sent instead to laparoscopic tubal repair or in vitro fertilization (IVF), said Ilan Tur-Kaspa, M.D., director of the Institute for Human Reproduction, and director of the clinical IVF program at the Reproductive Genetics Institute in Chicago.

"It could be used more often. It depends on the experience and expertise of the physician, as well as the patient's wishes," he said in an interview.

Speaking at a congress on laparoscopy and minimally invasive surgery, Dr. Tur-Kaspa outlined his experience with TTC in 625 infertile women who together had 1,010 blocked fallopian tubes. Almost half of the women (45%) already had been treated or referred for IVF because of proximal tubal occlusion.

After TTC, 84% of occluded tubes were recanalized, and 87% of these patients were advised to attempt natural conception. A total of 81% of patients followed this advice, and 41% achieved a natural pregnancy.

The pregnancy rate was considerably higher in women who had no other causes of infertility identified (52%), but was still significant in women with other diagnosed causes of infertility (32%). The highest pregnancy rate was 71%, in women under age 30, and the rate in women over age 40 was 19%, he reported at the congress, sponsored by the Society of Laparoendoscopic Surgeons.

"With a diagnosis of proximal tubal occlusion, often the next steps would be either laparoscopy or IVF. But in most of these cases you could either avoid or postpone those procedures [by performing TTC], and for many women this would result in a natural conception," he said.

Dr. Tur-Kaspa said that when hysterosalpingography (HSG) is performed with a balloon catheter, there is no change in catheter required for tubal catheterization. However, the catheter usually used for HSG is much smaller, and in this case a different catheter is necessary for TTC, he said.

"I insert a double-balloon catheter for HSG, and after that I introduce a selective salpingography catheter to reconfirm the diagnosis of proximal tubal occlusion. I then feed a guide wire into the fallopian tube to dislodge the occlusion, which is usually a mucous plug. After this I remove the catheter and perform selective salpingography to ensure the tube is patent. Finally, at the end, I repeat the HSG. My goal is to visualize both patent tubes," he explained.

The procedure was unsuccessful in recanalizing an occluded tube in 7% of cases, and another 7% of cases ended in a diagnosis of distal tubal occlusion, after the proximal occlusion was treated. Distal occlusions can be reached with the guide wire but they cannot be treated as easily because the width of the fallopian tube as it nears the ovary can be as much as 15 mm, but it is less than half a millimeter on the proximal end near the uterus, he explained. Women with distal occlusions should be referred for laparoscopic treatment or IVF, he advised.

Five women in his series were treated later for suspected pelvic inflammatory disease (PID), even though one of them conceived spontaneously the next month. Two of these women had distal occlusions, which could have caused the PID, he said.

There were two tubal perforations during the TTC procedures, but these injuries are insignificant, Dr. Tur-Kaspa said.

"There could be scar tissue or bleeding, but because it is a soft guidewire, it just heals by itself. It's my experience as well as [that of] others that it has no clinical sequelae," he said.

There were three ectopic pregnancies reported in the group (1.4%), but this was likely related to the patient population, not the procedure, he said.

"These results are definitely comparable with any IVF program. TTC can have a major impact on the counseling and management of infertile women. It should be recommended as first choice for infertile women with unilateral and bilateral proximal occlusions," Dr. Tur-Kaspa said. ■

References: 1. Kovac AL. Prevention and treatment of postoperative nausea and vomiting. *Drugs.* 2000;59:213-243. **2.** Marcus JR, Few JW, Chao JD, Fine NA, Mustoe TA. The prevention of emesis in plastic surgery: a randomized, prospective study. *Plast Reconstr Surg.* 2002;109:2487-2494. **3.** Scuderi P, Pearman M, Kovac A, et al. Single-dose oral ondansetron prevents nausea and vomiting after inpatient surgery. *J Appl Res.* 2001;1:49-56. **4.** Rust M, Cohen LA. Single oral dose ondansetron in the prevention of postoperative nausea and emesis. *Anaesthesia.* 1994;49(suppl):16-23. **5.** Data on file, GlaxoSmithKline.

Pages 10a—10b