Continued from previous page

light application of bipolar coagulation. If bleeding persists, ligate the vessels in the mesosalpinx with a 6-0 polyglactin suture. The suturing is technically demanding, but this is one condition in which suturing skill is extremely helpful, and all laparoscopists should acquire it.

Do not keep coagulating the inside of the tube to stop the bleeding. The thermal damage will affect the integrity of the tube, and that integrity is important for future pregnancies.

Leave the incision open to heal by secondary intention. A randomized study I led several years ago showed no difference in the rates of adhesion formation and subsequent fertility between patients who had suturing after laparotomy and those who did not. If there is no difference after laparotomy, then the outcomes associated with secondary intention and primary closure after laparoscopy will also be similar.

Some physicians have proposed giving women MTX right after surgery. Although I do not recommend administering MTX prophylactically, it might be worthwhile to administer one dose of MTX in those rare cases in which you suspect that you might have left behind some gestational tissue.

Salpingectomy Technique

There are several methods for laparoscopic salpingectomy. For one, you may ligate the part of the tube that contains the ectopic pregnancy, then resect and remove the tube.

Alternatively, use electrosurgery to coagulate the tube and mesosalpinx and then resect the specimen with scissors. The cornual portion of the tube should be desiccated close to the uterus. Elevate the tube when using the electrocautery, or you may inadvertently damage the ovarian vessels. You may perform either partial or segmental salpingectomy using a laparoscopic approach.

Regardless of the method of treatment, always check the patient's blood group. If she is Rh negative and the male partner's Rh factor is positive or unknown, the patient should be given RhoGAM.

Interstitial Pregnancy

Especially among patients who have had in vitro fertilization (IVF), you may encounter interstitial pregnancy. The conventional treatment is hysterectomy or cornual resection. But with earlier diagnosis using TVUS and β-HCG assays, it can be diagnosed early and treated medically or laparoscopically.

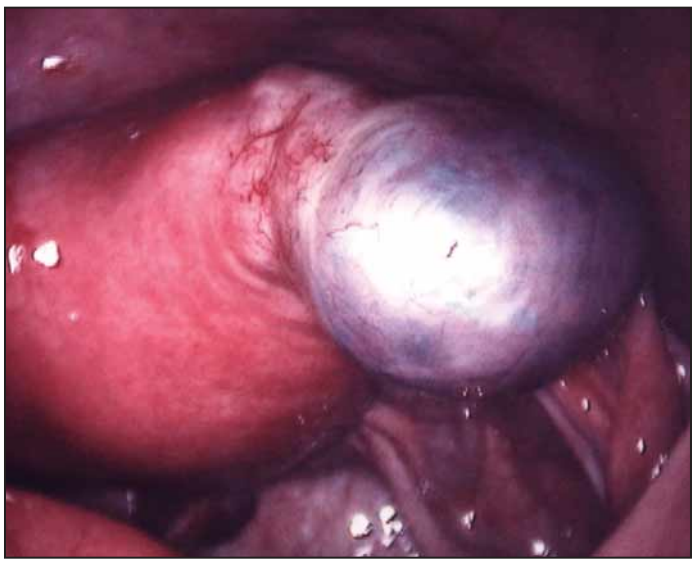
Start with medical treatment and resort to surgery if there is any deterioration in clinical status. There are several options for surgery, including laparoscopic cornual resection, cornuostomy, or salpingotomy. In most cases, you will want to use dilute intramyometrial vasopressin at the start of the surgery to minimize blood loss. And remember the value of suturing and the option of achieving hemostasis by ligating the ascending branches of the uterine vessels.

If you perform surgery, make sure you have expertise in suturing, because you will be working in a very vascular area. Be comfortable with the procedure you are doing. I prefer laparoscopic removal of the gestation, with removal of the interstitial portion of the tube if necessary.

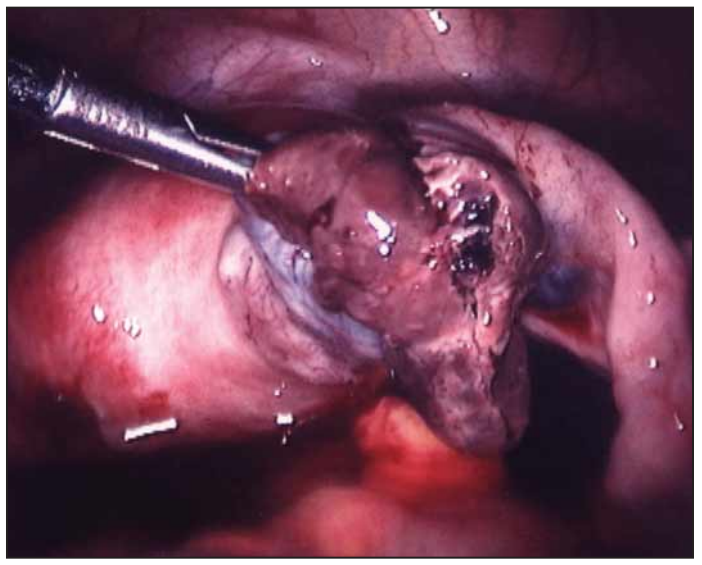
The risk of uterine rupture in future pregnancies after medical treatment of an interstitial pregnancy is unknown, as is the future integrity of the uterus following laparoscopic surgical treatment. We may be able to prevent future uterine rupture with proper suturing of the uterine cornu after laparoscopic treatment. Nevertheless, discuss the possibility of rupture occurring during a subsequent pregnancy with patients undergoing any treatment for interstitial pregnancy.

Likewise, monitor women with a history of interstitial pregnancy very closely. I usually recommend cesarean delivery to avoid potential uterine rupture during labor.

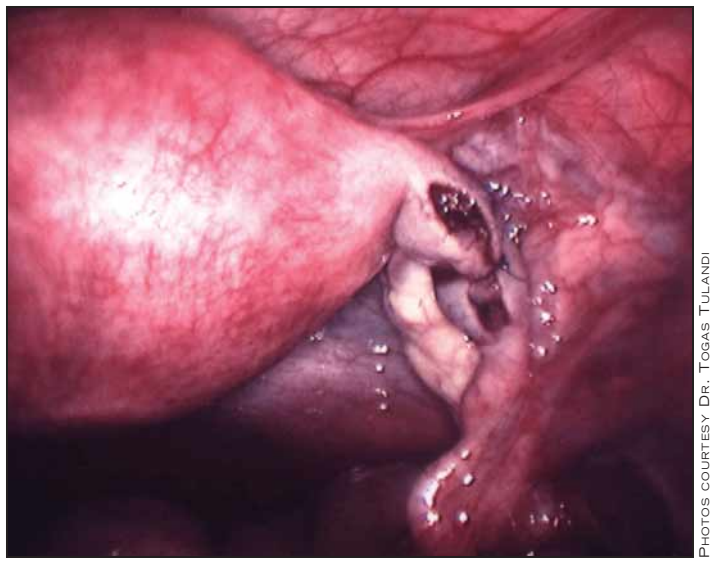
With any pregnancy after IVF, make sure that an ectopic pregnancy is not accompanied by pregnancy in the uterus. If you see both, you should not even consider medical therapy.



A large ischemic ectopic pregnancy can be painful emotionally as well as physically.



Salpingostomy has been performed and the ectopic gestation extruded outside the fallopian tube.



One suture to approximate the tubal incision has been placed, a step that requires exacting skill.

PHOTOS COURTESY DR. TOGAS TULANDI

Persistent Ectopic Pregnancy

Persistent ectopic pregnancy occurs more often after salpingostomy performed with laparoscopy than after salpingostomy through laparotomy (about 8% compared with 4%). The difference used to be much greater and probably reflects the surgeon's learning curve.

Some authors have recommended weekly serum β-HCG measurements after laparoscopic salpingostomy to exclude persistent ectopic pregnancy. We perform a single serum β-HCG measurement 1 week after surgery. If the level is more than 5% of the preoperative value, we will repeat the measurement 1 week later.

If the level does not decline after the second week, we administer a single dose of MTX (50 mg/m^2 intramuscularly). We then perform TVUS examination and measure serum β-HCG concentrations weekly until the level is lower than 10 mIU/mL. ■

Thermoablation: 73% Have Reduced Dysmenorrhea at 3 Years

BY DOUG BRUNK
San Diego Bureau

SAN DIEGO — Thermal balloon endometrial ablation is a safe and effective option for the treatment of women with idiopathic menorrhagia, results from a 3-year study of 330 women have shown.

"The procedure is simple, does not require additional training in operative hysterectomy, and compares favorably with other ablative techniques," Stefanos Chandakas, M.D., Ph.D., reported at an international congress of the Society of Laparoendoscopic Surgeons. "These good results, however, need to be confirmed in a randomized, controlled trial."

He and his associates used a 6-mm diameter Cavaterm Plus thermoablation system in 330 women with a mean age of 42 years. All participants had experienced heavy menstrual bleeding, failed medical treatment for the condition, and otherwise would have required hysterectomy, endometrial laser ablation, or endometrial resection.

The outpatient procedures were performed from January 2001 to June 2004 at Princess Royal University Hospital and Farnborough Hospital, Orpington, England. Contraindications included undiagnosed uterine bleeding, pregnancy or the desire to become pregnant, atypical endometrial cells, cervical length greater than 6 mm, a uterine cavity less than 4 cm or greater than 10 cm, uterine wall weakness, and ongoing infection.

No endometrial preparation was used. Each ablation lasted 10 minutes at a temperature of 78° C. Follow-up occurred at intervals of 3, 6, 12, 24, and 36 months, for a mean of 22 months.

Nearly half of the participants (48%) were amenorrheic after 1 year, while the rates of amenorrhea were 39% and 38% after 2 and 3 years, respectively. (See chart.)

The majority of women (83%) reported a reduction in dysmenorrhea and premenstrual symptoms at 1 year, "which is a recognized and consistent finding following endometrial destructive procedures," said Dr. Chandakas of the minimal access unit in the department of obstetrics and gynecology at Princess Royal.

At 3 years, 73% of women reported a reduction in dysmenorrhea and premenstrual symptoms. No balloons failed, and no major complications were noted.

Dr. Chandakas disclosed that he has no financial interest in Wallsten Medical, the Swiss manufacturer of Cavaterm Plus. ■

Thermal Balloon Endometrial Ablation

Follow-Up	Amenorrhea	Hypomenorrhea
6 months (n = 321)	61%	22%
12 months (n = 289)	48%	27%
18 months (n = 193)	42%	31%
24 months (n = 132)	39%	35%
36 months (n = 91)	38%	35%

Source: Dr. Chandakas