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# A common—and correctable—cause of infertility in women

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## CASE

The patient is a 36-year-old Hispanic woman who has been infertile for several years and who desires pregnancy. She has one 14-year-old daughter. The results of her full laboratory workup and physical examination are both essentially normal. For the next step, she needs to undergo hysterosalpingography (HSG).

HSG evaluates the uterus and fallopian tubes under fluoroscopic guidance. An obstetrician/gynecologist or radiologist usually performs the procedure. Contrast is injected into the cervical os, and the fluid fills the uterus and fallopian tubes. Ideally, in normal subjects, the contrast material should spill from the fallopian tubes and into the peritoneal cavity. **What does this patient's HSG show (see Figure 1)?**

## DISCUSSION

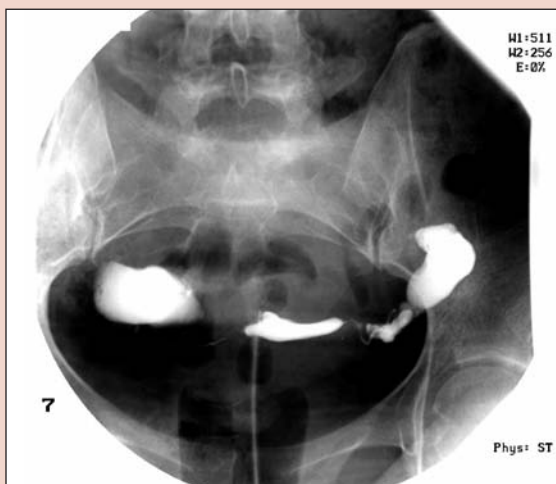
**The HSG shows** a uterus that appears normal in both size and configuration. The proximal aspects of the fallopian tubes appear unremarkable; they should be very thin, almost as fine as a strand of hair. Notice, however, that in the region of the fimbria, the distal aspects of the fallopian tubes are markedly dilated and no contrast is spilling into the peritoneal cavity. This condition is compatible with hydrosalpinx.

**Hydrosalpinx** results when fluid, usually clear and watery, fills the fallopian tube. This condition, which causes infertility, is a commonly occurring abnormality of the fallopian tube. Hydrosalpinx usually stems from a remote pelvic infection—gonococcal, chlamydial, staphylococcal, streptococcal—from pelvic tuberculosis, or from infection caused by another bacterium. Other causes include intrauterine devices, endometriosis, and prior surgery. These conditions or previous infections can cause destruction of the fallopian tubes, with adhesions and abscesses developing subsequently. This process eventually leads to tubal obstruction. The course of hydrosalpinx can develop and go undetected for years.

The author practices in a radiology group at North Oaks Health System, Hammond, La. She has indicated no relationships to disclose relating to the content of this article.

FIGURE 1

### Hysterosalpingogram in a 36-year-old woman



Patients may have chronic or recurrent pelvic pain, or they may even have no symptoms at all. Some women, however, experience recurrent tubal infections.

Hydrosalpinx is diagnosed using HSG with sonography or laparoscopy. Physicians sometimes treat milder cases laparoscopically with neosalpingostomy. Although this procedure opens the obstructed end of the tube, the lumen can often become reoccluded. Many patients with this problem who desire pregnancy undergo in vitro fertilization (IVF), which bypasses the obstructed fallopian tubes completely since the embryo is implanted into the uterus. Some studies suggest that the existence of hydrosalpinx can reduce the chances that IVF will be successful and can increase the risk of miscarriage. Research also suggests that when the patient has hydrosalpinx, the embryo implantation rate is reduced. Because of these complications, which could reduce the chances of a successful pregnancy, some physicians may either remove the fallopian tube or separate it from the uterus before initiating IVF. □