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Obstetrics and Gynecology

Pregnant woman with acute abdominal pain

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ectopic pregnancy, heterotopic pregnancy, in vitro fertilization embryo transfer (IVF-ET), salpingectomy, tubal pregnancy, tubo-ovarian abscess

1 | PATIENT PRESENTATION

A 41-year-old woman at her 8th week of gestation after in vitro fertilization embryo transfer (IVF-ET) presented to the emergency department with nausea, vomiting, and abdominal pain for 1 day. Two embryos were transferred in this cycle. She had a history of tubo-ovarian abscess and endometrioma and had undergone bilateral salpingectomies before IVF-ET. Prior antenatal examinations were uneventful and identified as singleton pregnancy. In the emergency department, physical examination revealed lower abdominal tenderness and rebounding pain without muscle guarding. Ultrasonography revealed an intrauterine gestational sac with viable fetus accompanied by an extra-ovarian mass over the left adnexa (Figure 1) with intraperitoneal free fluid accumulation (Figure 2).

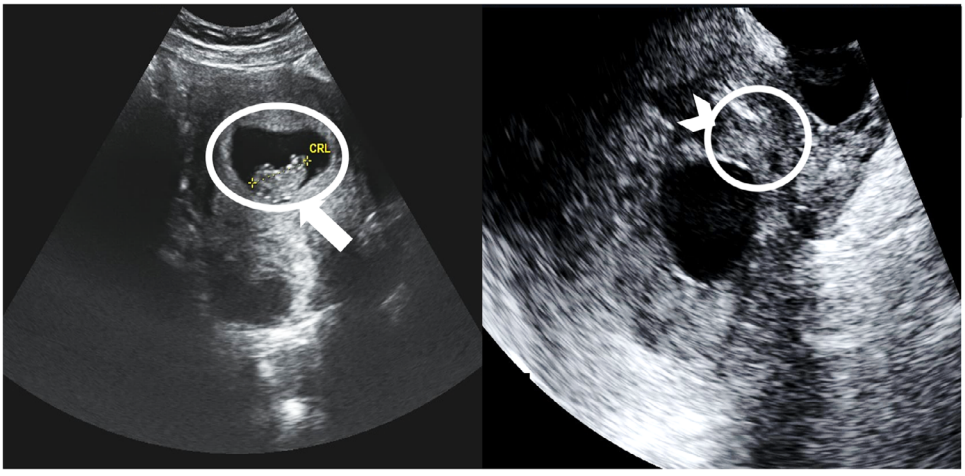

FIGURE 1 Ultrasonography revealed an intrauterine gestational sac with a fetal pole measuring 24.9 mm in crown–rump length, accompanied by a discernible fetal heartbeat (arrowhead) and an extra-ovarian mass over left adnexal region (arrow and circle).

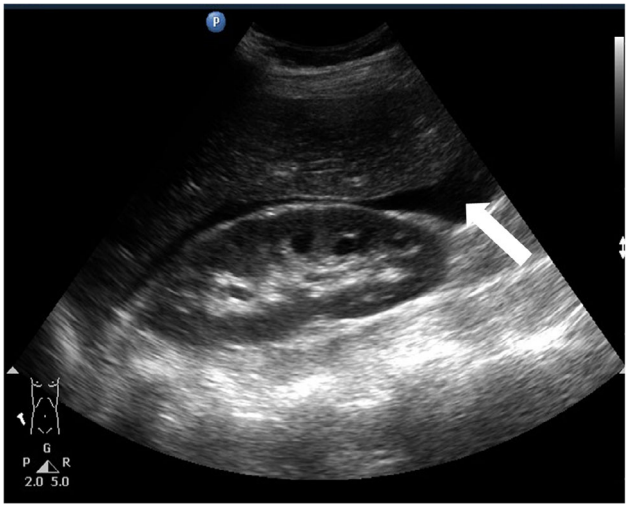

FIGURE 2 Transabdominal ultrasonography showing fluid accumulation in Morrison's pouch (arrow).

2 | DIAGNOSIS

2.1 | Heterotopic pregnancy

The abdominal pain suddenly intensified. Vital signs were as follows: pulse rate of 104 beats/min and blood pressure of 111/73 mmHg. Hemoglobin level dropped from 10.4 to 7.2 g/dL, indicating internal bleeding. Emergent diagnostic laparoscopy was performed, revealing an engorged bulging mass lesion over the left adnexa and massive hemoperitoneum (Figure 3). The removal of ectopic pregnancy tissue proceeded without complications. Fetal heartbeat presented in intrauterine sac after surgery. Heterotopic pregnancy, a rare complication with an incidence of 0.6–2.5 in every 10,000 spontaneous pregnancies,[1] has increased with the widespread use of assisted reproductive technology to 1.5/1000 or even 1/100.[2,3] Pelvic inflammatory disease and previous tubal or pelvic surgery have also been identified as risk factors.[4] The prognosis for intrauterine pregnancy with heterotopic pregnancy after surgical treatment is favorable, with a live birth rate of about 80% according to recent studies.[4,5] The falsely reassuring presence of an intrauterine fetus often impedes early intervention. Both emergency physicians and obstetricians should be mindful of heterotopic pregnancy, especially in IVF-ET patients.

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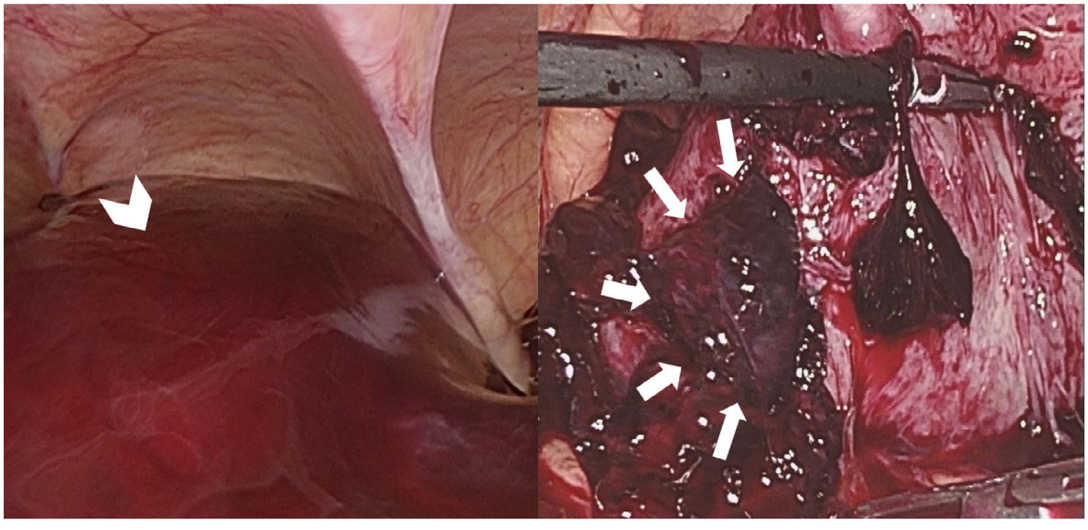

FIGURE 3 Engorged bulging mass over left adnexa about 3 × 3 cm (arrow) and blood accumulation (arrowhead) in the cul-de-sac were visualized during laparoscopy.