Case Reports

Secondary missed abdominal pregnancy due to iatrogenic uterine perforation: a case report

H.J. Seol, S.Y. Tong, K.D. Ki

Department of Obstetrics and Gynecology, Kyung Hee University Hospital at Gangdong, Seoul (Korea)

Summary

Abdominal pregnancy is extremely rare and can result from the reimplantation of an intrauterine pregnancy after spontaneous uterine rupture. In this report, we present the case of a secondary missed abdominal pregnancy resulting from iatrogenic uterine perforation during dilatation and curettage in an early intrauterine pregnancy and subsequently misdiagnosed as intrauterine trophoblastic disease. Transvaginal ultrasound missed the diagnosis, which was finally confirmed by computed tomography. We discuss the particulars of the case along with a review of the relevant literature.

Key words: Abdominal pregnancy; Uterine perforation; Ultrasound; Computerized tomography (CT); Laparotomy.

Introduction

Abdominal pregnancy is a very rare disease, with high maternal morbidity and mortality. Early diagnosis of abdominal pregnancy is essential to prevent the complications of intraabdominal infection and placental hemorrhage. It usually occurs after tubal abortion or rupture. Diagnosis of missed abdominal pregnancy is problematic because it can mimic other pelvic pathology, including pelvic inflammatory disease. We report a very rare case of secondary missed abdominal pregnancy resulting from an iatrogenic uterine perforation, and misdiagnosed as intrauterine trophoblastic disease with pelvic infection.

Case Report

A 36-year-old woman, gravida 1 para 0, was referred due to a 3-week history of abdominal pain. At the time of referral, she had been diagnosed with peritonitis and suspected intrauterine trophoblastic disease. The patient had undergone elective dilatation and curettage (D&C) eight weeks after her last menstrual period. She had experienced mild abdominal pain and vaginal bleeding for two months after the procedure, and returned to the original clinic. The clinic that performed the initial D&C had performed two additional D&Cs two weeks apart for placental remnants in the uterine cavity. However, her abdominal pain worsened, and transvaginal sonography (TVS) showed an intrauterine mass suspicious for trophoblastic tissue, resulting in a diagnosis of pelvic inflammation and intrauterine trophoblastic disease.

She was referred to our center 20 weeks after her last menstrual period with worsening abdominal pain despite a 2-week course of intravenous antibiotics. Her initial blood pressure was 100/70 mmHg, pulse 94/min, and temperature 38.5°C. Her abdomen was soft and flat but there was diffuse tenderness to palpation as well as diffuse rebound tenderness. Initial laboratory tests revealed mild leukocytosis (white blood cell count 11,200/mm3 with 85% neutrophils), an elevated C-reactive protein (CRP) (13.6 mg/dl; normal range, 0.02-0.3 mg/dl). Her urine test was positive for pregnancy.

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An ultrasound revealed an echogenic mass measuring 5 × 3 cm, as well as an ill-defined mass of mixed echogenicity, adjacent to the uterine fundus (Figure 1). There was no gestational sac visible in the uterine cavity. Computed tomography (CT) was performed to evaluate the intraabdominal mass and her abdominal pain, which showed a fetal skeleton in the abdominal cavity and an intrauterine mass with air (Figure 2). A missed abdominal pregnancy was diagnosed.

Laparotomy was performed revealing a shapeless necrotic mass, suspected to be a dead fetus due to a recognizable fetal hand, amidst the bowel and omentum (Figure 3). After adhesiolysis, a 2-cm uterine defect, consistent with an iatrogenic perforation made during the D&C, was identified in the posterior body of the uterus (Figure 4). The fetus was connected to the uterine cavity by an umbilical cord passing through the defect. The residual placental mass in the uterine cavity was removed through the uterine defect and a primary repair was performed. The necrotic intraabdominal mass was confirmed to be a fetus of approximately 16 weeks of gestation without an amniotic sac or placental tissue (Figure 5). Pathologic examination confirmed the intrauterine mass as a necrotic placenta. The patient was treated with antibiotics and remained afebrile on postoperative day 2. She recovered uneventfully and was discharged on postoperative day 12 after her CRP level had normalized.

Discussion

Abdominal pregnancy is rare, accounting for approximately 1% of all ectopic pregnancies [1]. While most cases of secondary abdominal pregnancy result from the reimplantation of a ruptured or aborted tubal pregnancy, rare cases result from intrauterine pregnancies in which a uterine scar [2] uterine horn, or other anomaly spontaneously rupture [3, 4]. In our patient, iatrogenic uterine perforation during an induced abortion led to a secondary abdominal pregnancy. Despite several D&Cs, TVS showed an intrauterine echogenic mass leading to the misdiagnosis of placental remnants or gestational trophoblastic disease. Although high-resolution TVS can visualize the pelvic organs in detail, its narrow field of view may miss structures remote from the vagina, such as

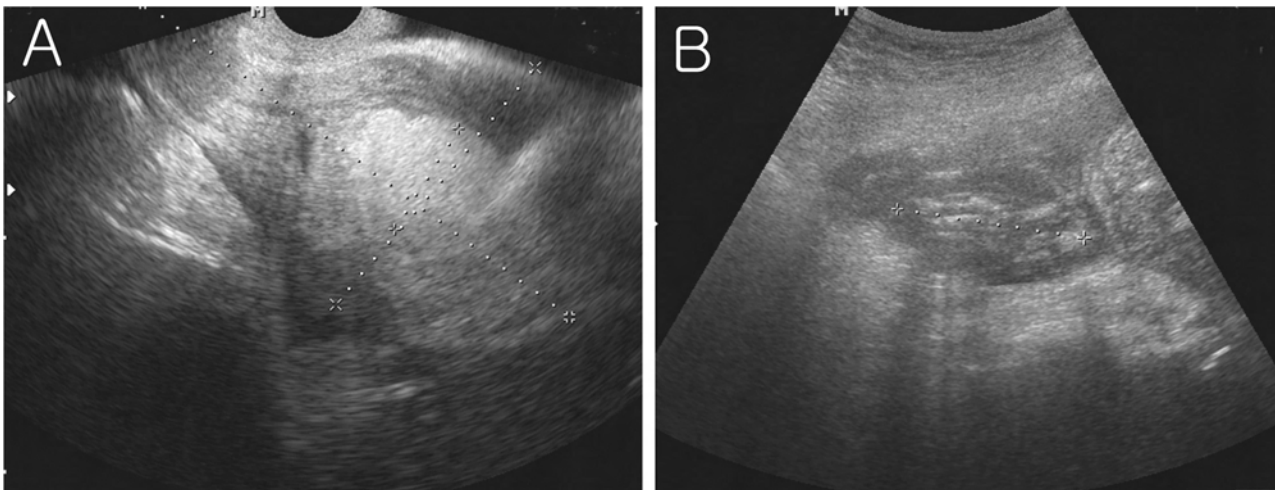

Figure 1. — (A) TVS showing a 5 × 3 cm echogenic intrauterine mass. (B) TVS showing an ill-defined mixed echogenic mass in the abdominal cavity adjacent the uterine fundus.

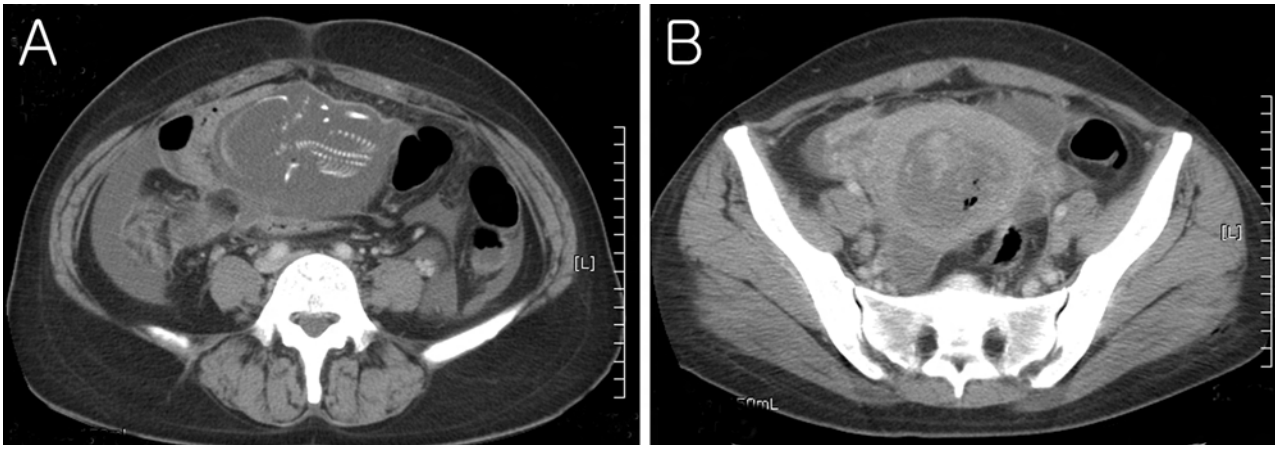

Figure 2. — (A) Axial CT image of the abdomen showing fetal tissues surrounded by bowels. (B) Axial CT image of the pelvis showing intrauterine mass with air. Note the absence of a fetus in the uterine cavity.

abdominal masses. In our case, we postulated that the intraabdominal fetus was not visible on TVS until it reached 16 weeks of gestation. Furthermore, the intrauterine echogenic mass overshadowed the intraabdominal fetus.

Diagnosis of advanced abdominal pregnancy requires a high index of suspicion. Several cases reported in the literature have been misdiagnosed as normal intrauterine pregnancies despite transabdominal ultrasound [2, 5-7]. These reports suggest magnetic resonance imaging to diagnose a live abdominal pregnancy and to give detailed anatomic information, such as the placental location. In our case, TVS of the necrotic fetus without amniotic fluid was inconclusive, and was ultimately diagnosed by CT. Due to the high mortality and morbidity of post-abortion infections, septic abortions require prompt evacuation [8].

In South Korea, elective abortions are prohibited by law, resulting in illegal abortions that can cause complications such as pelvic infection and uterine perforation. In this case of secondary missed abdominal pregnancy, the patient returned to the clinic that had provided the abortion with concerning symptoms, but she was misdiagnosed. A high index of suspicion and a careful examination may have yielded the correct diagnosis, but instead the patient underwent unnecessary procedures and delayed treatment, resulting in increased morbidity.

In conclusion, abdominal pregnancy can result from iatrogenic uterine perforation during D&C. Awareness of this possible complication is important to aid in diagnosis and reduce associated morbidity and mortality.

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Fig. 3

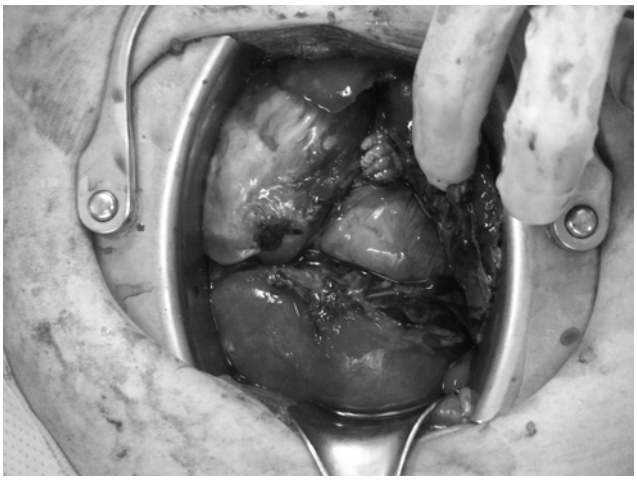

Fig. 5

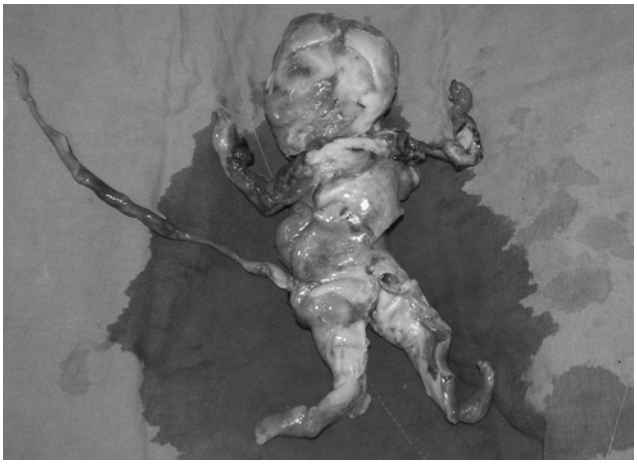

Fig. 4

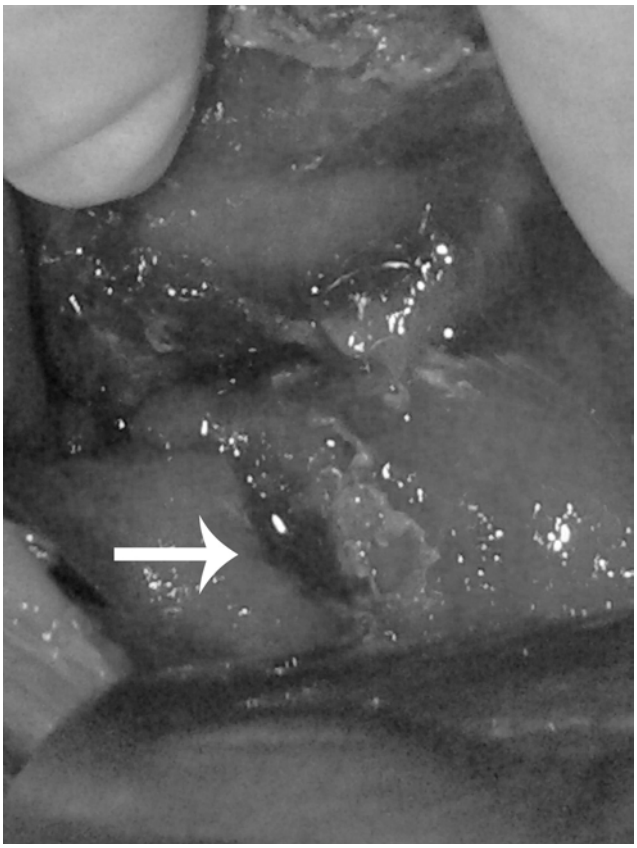

Figure 3. — Intraoperative photograph showing the dead fetus tangled with bowel and omentum in the abdominal cavity outside the uterus.
Figure 4. — Arrow indicates a small defect on the posterior body of the uterus.
Figure 5. — Surgical specimen of the dead fetus, approximately 16 weeks gestation. There were no placental parts in the abdominal cavity.

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Address reprint requests to:
H.J. SEOL, M.D.
Department of Obstetrics and Gynecology
Kyung Hee Universtiy Hospital at Gangdong
149, Sangil-dong, Gangdong-gu
Seoul 134-727 (Korea)
e-mail: seolhj@khu.ac.kr