Missed Spontaneous Heterotopic Pregnancy: A Case Report of a Ruptured Tubal Pregnancy after Induced Abortion

Sir,

Heterotopic pregnancy is an uncommon condition with coexisting intrauterine and ectopic pregnancies. The incidence of spontaneous heterotopic pregnancy is approximately 1 in 30,000.\(^1\) It is difficult to detect and diagnose, owing to the intrauterine pregnancy concealing the extrauterine one in most cases, which may lead to fatal complications such as rupture of the ectopic pregnancy and life-threatening haemorrhage.\(^4\) Consequently, an early diagnosis of heterotopic pregnancy is crucial to prevent its complications and improve the patient’s prognosis. Detailed transvaginal ultrasonography, serum β-hCG levels and clinical symptoms are helpful for the diagnosis.\(^5\)

A 32-year woman, gravida 3, para 1, presented to the hospital with amenorrhoea for 58 days and vaginal bleeding for two weeks. Transvaginal ultrasonography showed an intrauterine gestation with a sac of 13 × 17 × 12 mm and no abnormality in the bilateral adnexal (Figure 1). Her serum β-hCG level was 40,421.7 mIU/mL. With a diagnosis of early pregnancy, the patient underwent an induced abortion. Histopathology of the intrauterine contents showed placental villi and decidual tissue, which confirmed an intrauterine pregnancy. However, one-week post-procedure, the patient was hospitalized with symptoms of constant abdominal pain and increased vaginal bleeding. Physical examination showed generalized abdominal tenderness and rebound pain together with tachycardia (105 bpm). Compared to a week prior, her haemoglobin had dropped drastically, whereas the β-hCG level had decreased by only one-third. An emergency computerized tomography scan showed an extensive pelvic and abdominal effusion that suggested a high probability of haemoperitoneum (Figure 2). Laparoscopic exploration was then performed. Operative findings included a ruptured ectopic pregnancy, approximately 1.0 cm in length, in the ampulla of the left fallopian tube, and 2,500 mL of pelvic and abdominal haemoperitoneum (Figure 3). The patient underwent left salpingectomy, following which her serum β-hCG level decreased significantly. Histology from the second surgery sample confirmed a tubal ectopic pregnancy.

To our knowledge, this is an extremely rare case report of a spontaneous heterotopic pregnancy complicated by a ruptured ectopic pregnancy one week after an induced abortion, which may be caused by simultaneous or delayed fertilisation. This rare case highlights several key points for pre-abortion assessment and postoperative management. During the first trimester ultrasound, it is important to examine the adnexa, even if an intrauterine embryo is seen. After abortion, the serum β-hCG level should be monitored closely. In the event of an abnormality, we usually consider incomplete abortion and choriocarcinoma. In addition, spontaneous heterotopic pregnancy should also be suspected. When a patient complains of acute abdominal pain after an abortion, after ruling out other potential complications, such as pelvic inflammatory disease and perforation, we should be alert to the possibility of heterotopic pregnancy, particularly in women who present with an adnexal mass and an abnormal β-hCG level. Ethics Committee approval was obtained for this report.

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**Figure 1:** Transvaginal ultrasound images of pre-uterine curettage. (A-B) Gestation sac in the uterus (longitudinal and transverse view). (C) No abnormality in the left adnexa. (D) No abnormality in the right adnexa.

**Figure 2:** CT findings. (A-B) Extensive pelvic and abdominal effusion which suggested a high probability of haemoperitoneum.

**Figure 3:** Laparoscopic view of ruptured ectopic pregnancy at the ampulla of left fallopian tube and haemoperitoneum.
COMPETING INTEREST:
The authors declared no competing interest.

AUTHORS’ CONTRIBUTION:
SY: Collected case data and drafted the main part of the manuscript.
WL, WL: Designed the report and revised manuscript;
All authors have approved the final version of the manuscript to be published.

REFERENCES


