A case of right heterotopic pregnancy in a 28-year-old following ovulation induction

Dr Manpreet Kaur1, Dr Kylie Webber1 1. Women's and Children's Hospital, North Adelaide, South Australia



Background

Heterotopic pregnancy, where both intrauterine and extrauterine pregnancies coexist, is rare but life-threatening. Its incidence is higher with assisted reproductive technologies, such as in vitro fertilization, where it occurs in about 1 in 1,500 to 3,000 pregnancies¹. In spontaneous conceptions, the rate is much lower, around 1 in 30,000 to 50,000, while ovulation induction increases the risk to 1 in 3,000 to 5,000¹. Due to its rarity, heterotopic pregnancy can often be misdiagnosed, and timely diagnosis is crucial to prevent life-threatening complications such as rupture and haemorrhage.

Case Report

A 28-year-old nulliparous female, with a history of ovulation induction, presented at 7+4 weeks gestation with sudden onset right iliac fossa pain. She had experienced two similar episodes of pain at 5 weeks gestation. On examination, the abdomen was soft with mild tenderness in the right iliac fossa. Ultrasound findings revealed a live intrauterine pregnancy (CRL 11.3 mm) and a vascular mass in the right adnexa, separate from the right ovary, with low-level echogenic fluid in the pouch of Douglas, which raised suspicion for a heterotopic pregnancy involving a ruptured right ectopic pregnancy.



Image A: Transvaginal ultrasound pelvic ultrasound; left image showing live intrauterine pregnancy; right image showing a vascular mass in the adnexae suspicious for a right heterotopic pregnancy

Operative Management and Findings

Operative management was undertaken, the right fallopian tube appeared distended and haemorrhagic with a ruptured ectopic pregnancy (Image B). The ectopic pregnancy was removed successfully, and the patient's intrauterine pregnancy remained viable. Postoperatively, the patient was monitored closely and remained hemodynamically stable. The right tubal ectopic pregnancy was later confirmed on histopathology.



Image B: Intraoperative findings of an enlarged oedematous right fallopian tube and haemoperitoneum consistent with a ruptured ectopic pregnancy

Discussion

Early diagnosis of heterotopic pregnancy, as seen in this case, is critical to prevent complications such as haemorrhagic shock. Despite the rare nature of the condition, prompt surgical intervention can allow for the preservation of the intrauterine pregnancy, which was successfully maintained in this case.

References

1. Jurkovic, D., & Wilkinson, H. (2010). Heterotopic pregnancy: A review of the literature and case report. Human Reproduction Update, 16(5), 471-481.