



Rebecca Shields

Iliac fossa pain in pregnancy

A case study

Keywords

pregnancy; pelvic pain

Case study

Samantha, 29 years of age, presented with 3 days of worsening left iliac fossa pain at 9 weeks gestation with dichorionic-diamniotic (DCDA) twins. There was no vaginal bleeding, nausea, vomiting or diarrhoea.

She had experienced intermittent vaginal bleeding throughout the pregnancy, and had undergone ultrasound examinations at 5 and 7 weeks to investigate this. These scans showed a viable DCDA twin pregnancy with a left corpus luteum.

Samantha had a past history of polycystic ovarian syndrome and laparoscopic gastric banding surgery 4 years previously. She was gravida four para three, and had a history of two previous twin pregnancies and one previous singleton pregnancy. She had no history of pelvic inflammatory disease or fertility treatments.

On examination, Samantha appeared well. Her blood pressure was 134/77 and heart rate was 88 bpm. Abdominal examination revealed left iliac fossa tenderness with rebound and cross tenderness. Her haemoglobin level was 130 g/L.

An urgent transvaginal ultrasound scan was ordered which showed intrauterine twins and a left tubal ectopic pregnancy with a yolk sac and fetal pole, 7 week size by crown-rump length.

Question 1

What is the diagnosis?

Question 2

What is the differential diagnosis of pelvic pain in early pregnancy?

Question 3

What are the risk factors for this diagnosis?

Question 4

What diagnostic tools are helpful in assessing this presentation?

Question 5

What is the management of this condition?

Answer 1

The diagnosis is heterotopic pregnancy (both intrauterine and extrauterine pregnancies). This patient has a triplet heterotopic pregnancy.

Answer 2

Pelvic pain is a common presentation in early pregnancy. The differential diagnosis includes pregnancy related and nonpregnancy related pathology. Miscarriage, ectopic pregnancy, ovarian torsion, ruptured ovarian cyst/corpus luteum, pelvic inflammatory disease, red degeneration of fibroid, heterotopic pregnancy, gastrointestinal tract pathology and urinary tract pathology should all be considered.

Answer 3

Heterotopic pregnancy is rare in spontaneous conceptions, with an incidence of 1:30 000.¹ However, the incidence is up to 1:100 in pregnancies conceived by assisted reproductive technologies (ART).² Other risk factors include previous ectopic pregnancy, smoking, endometriosis, pelvic inflammatory disease and previous tubal surgery.³

Answer 4

Heterotopic pregnancy is often a diagnostic dilemma, and is usually only diagnosed after tubal rupture.^{3,4} Clinical signs and symptoms are often unhelpful in making a diagnosis, and the presence of an intrauterine gestation can

be falsely reassuring. Diagnosis is made using transvaginal ultrasound, or retrospectively at laparoscopy or laparotomy.

Answer 5

Treatment of a heterotopic pregnancy is primarily surgical, although expectant and medical management has been described.^{3,4}

Medical management involves ultrasound guided transvaginal injection of hyperosmolar glucose or potassium chloride into the extrauterine gestational sac.⁵

Surgical treatment is either laparotomy (advised in cases of shock) or laparoscopy.

Discussion

Heterotopic pregnancy presents a diagnostic and management problem.

Transvaginal ultrasound was invaluable in revealing the diagnosis in this case, however, ultrasound may reveal only an intrauterine pregnancy without any abnormal features.⁶ Other ultrasound findings in heterotopic pregnancy include an intrauterine pregnancy in conjunction with an adnexal mass, free fluid in the pelvis and, rarely, a fetal heartbeat outside the uterus.⁶

In Samantha's case, a laparoscopy and left salpingectomy (*Figure 1*) with minimal handling of the uterus was performed. She subsequently had an elective caesarian section at 38 weeks gestation, with both twins born alive and well.

Although rare, heterotopic pregnancy should be considered in all cases of abdominal pain in pregnancy, particularly in women who have conceived using ART. Every woman who conceives using ART should have both adnexae carefully examined using transvaginal ultrasound in the first trimester.²

Author

Rebecca Shields MBBS, is obstetric and gynaecology HMO, Monash, Department of Obstetrics and Gynaecology, Monash Medical Centre, Melbourne, Victoria. rebecca.shields@southern-health.org.au.

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Figure 1. Left fallopian tube and ectopic products of conception

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