

Spontaneous heterotopic pregnancy: a case report



Background

A spontaneous heterotopic pregnancy occurs when multiple gestations arise from a natural cycle located in different implantation sites.

The estimated incidence is reported to be 1 in 30,000 however the total number can be expected to rise with increasing use of assisted reproductive technology.

The most common site of implantation is an intra-uterine pregnancy with an ectopic in the fallopian tube, however implantations in the cervix, abdominal cavity and caesarian scars have also been reported.

Case presentation

A 37-year-old G2P1 presented to the emergency department (ED) with abdominal pain at 6 weeks gestation. She had a known spontaneous intrauterine pregnancy seen on outpatient ultrasound two days prior. There was no PV bleeding. Obstetric history was significant for one previous normal vaginal delivery at term four years prior.

Examination revealed a tender abdomen and the patient was hypotensive with a systolic BP of 70mmHg. bHCG was 33,063 and haemoglobin 113g/L.

Obstetric differentials:

- Miscarriage
- Ectopic
- Molar pregnancy

Non-obstetric differentials:

- GI bleed
- Bowel perforation
- Appendicitis
- Cholecystitis
- Pancreatitis
- Adnexal torsion

USS findings

There was free fluid in the Pouch of Morrison on bedside ultrasound. Pelvic ultrasound showed a likely heterotopic pregnancy with a left complex adnexal mass (Figure 1) with large amount of free fluid as well as an intrauterine pregnancy with no fetal pole.



Figure 1

Operative findings

She received IV fluid resuscitation and was sent for an emergency laparoscopy. On entry, an actively bleeding ruptured left interstitial ectopic pregnancy was found with 2.5L of haemoperitoneum (Figure 2). A left salpingectomy was performed. Superficial involvement of the uterine serosa and myometrium was noted with no cavity breach. Haemostasis was achieved with bipolar diathermy and sutures (Figure 3).

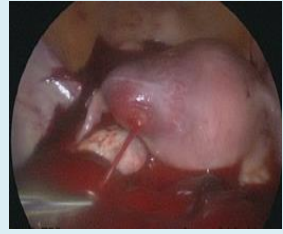


Figure 2



Figure 3

Post-operative

There was symptomatic anaemia with haemoglobin drop to 69g/L. She received two units of packed red blood cells.

Histopathology revealed left fallopian tube with products of conception. Repeat pelvic ultrasound showed an irregular intrauterine anechoic area measuring 20mm in diameter, no yolk sac or fetal pole. She progressed to spontaneous complete miscarriage. The patient was advised to avoid pregnancy for 6 months due to disruption of uterine myometrium and for C-section for future deliveries.

Discussion

Risk factors:

- Assisted reproductive technology
- Previous ectopic pregnancy
- Pelvic inflammatory disease
- Prior pelvic surgery

Ultrasound remains a reliable and convenient method for diagnosis. First, an intra-uterine gestation should be confirmed with TV USS when b-hCG levels >2000mIU/mL.

Next, the adnexa should be checked, beginning with the ovaries, as the adnexa is the most common site of an ectopic. An adnexal mass may represent an ectopic gestation or corpus luteum.

Serial sonographic exams may be required in clinically stable patients with an adnexal mass: the ectopic gestation increases in size with time, making it more visible.

Medical management involves localised or systemic application of a drug for termination. When the intra-uterine pregnancy is viable, localised injection of potassium chloride or hyperosmolar solution into the ectopic can preserve the intra-uterine pregnancy. When the intra-uterine pregnancy is not viable, methotrexate may be prescribed.

Ultrasound-guided aspiration or laparoscopic surgery can be used for removal of the ectopic gestation. In haemodynamically unstable patients or if large amounts of free fluid in the pelvis, laparotomy is the preferred option. Delays in management carries the risk of hypovolaemic shock and sepsis from products of conception.

Conclusion

The diagnosis of an intrauterine pregnancy *does not* exclude an ectopic pregnancy and suspicion should remain high in women with abdominal pain and pelvic free fluid.

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