Spontaneous heterotopic pregnancy and ectopic pregnancy: a case report

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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 25-year-old G8P1 presented to the emergency department (ED) with abdominal pain and PV spotting at 9 weeks gestation.

She had one normal vaginal delivery at term seven years prior and six previous dilatation and curettages (D&Cs). The patient had been previously treated for chlamydia.

On examination, she was haemodynamically stable, abdomen was soft and non-tender and speculum examination showed no active bleeding.

USS findings

Pelvic ultrasound showed heterogeneous material within the uterus (Figure 1) suspicious for incomplete miscarriage, a left ovarian cyst 23 x 17 x 23mm and moderate free fluid in the pouch of Douglas.

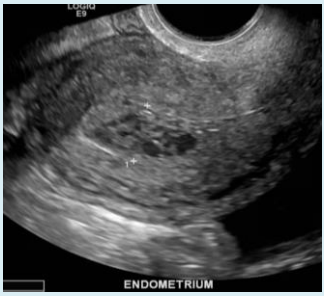

Figure 1

The patient was managed through outpatient clinic for presumed incomplete miscarriage in the context of inappropriately rising bHCG levels. She opted for D&C and the uterus was confirmed empty on bedside TA-USS and she was discharged.

The patient re-presented to ED day one post-operatively with severe lower abdominal pain. Repeat bHCG showed a rise and repeat pelvic USS revealed a left ectopic pregnancy (Figure 2) and free fluid in the pelvis.

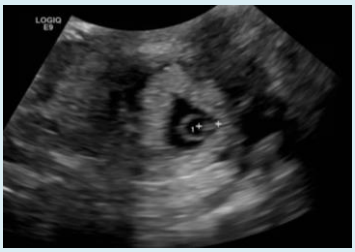

Figure 2

Operative findings

She underwent emergency laparoscopic salpingectomy for a ruptured left tubal ectopic pregnancy (Figure 3) with 200mL haemoperitoneum. The patient recovered well post-operatively and was later commenced on the contraceptive pill (COCP). Histopathology confirmed the diagnosis of both an ectopic and intrauterine pregnancy.

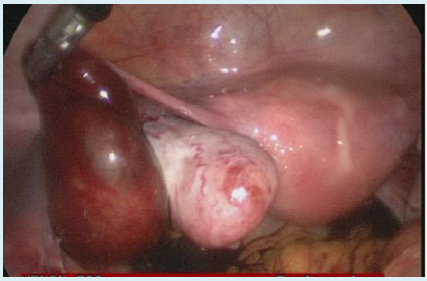

Figure 3

Ectopic pregnancy

Five months later, the patient presented to ED with a serum bHCG of 1,048 at 4+3 weeks gestation by LMP on background of missing four days of the COCP.

Pelvic USS revealed a 27 x 27 x 27mm round anechoic focus in the endometrial cavity that was a possible early gestational sac. Plans were made for follow-up but did not occur as the patient went on holidays.

While on holidays, she presented to a different facility at 9+6 weeks with severe abdominal pain and a serum bHCG of 3,000. A left ectopic pregnancy in the cornual stump was found and she underwent emergency laparoscopic removal of the ectopic gestation with 1.8L haemoperitoneum on entry. She received two units of packed red blood cells. Histopathology confirmed an ectopic pregnancy.

Discussion

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.

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.

Surgical modalities include ultrasound-guided aspiration of the products of conception, laparoscopy and laparotomy.

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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