Unusual presentation of more common disease/injury

An unusual haemoperitoneum – secondary abdominal pregnancy

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Correspondence to Dr Muhammad Ahsan Akhtar, drmakh@doctors.org.uk**Summary**

A 36-year-old amenorrhoeic patient presented with vague abdominal discomfort, and haemodynamic instability, a large haemoperitoneum was identified on transvaginal ultrasound. Ruptured tubal ectopic pregnancy was suspected. At laparotomy ruptured primary tubal ectopic pregnancy was identified, with 12–14 week secondary abdominal pregnancy implanted onto the omentum, confirmed by histopathology. Salpingo-oophorectomy with peritoneal washout was performed, and three units blood transfusion was required. The patient had an uneventful recovery to health.

BACKGROUND

Abdominal pregnancy is a very rare non-tubal ectopic pregnancy. Maternal mortality and morbidity is very high, largely due to haemorrhage following placental separation. Management is dependent on gestational age, and the site of placental attachment. Most cases require laparotomy. Secondary abdominal pregnancy has been reported following tubal abortion, or very occasionally after uterine rupture. The pregnancy may implant in the Pouch of Douglas (POD), on the posterior surface of the uterus, omentum or any abdominal viscera.

We present an unusual case of secondary abdominal pregnancy, with placental attachment to the omentum and evidence of a ruptured fallopian tube.

CASE PRESENTATION

A 36-year-old Gravida 3 Para 2 woman was referred to a gynaecologist by her general practitioner, for pregnancy testing during out of hours. On arrival a detailed history was taken by the Gynaecology Senoir House Officer. The patient reported 4–5 weeks amenorrhea and slight abdominal discomfort. She was a smoker, consuming in excess of 20 units of alcohol per week. Urine pregnancy test was positive; she was tachycardiac, tachypnoeic and pale. Two large bore intravenous cannulas were sited, intravenous crystalloids were commenced and blood tests were sent urgently. Urgent review by the gynaecology registrar was undertaken. A transvaginal ultrasoundscan revealed an empty uterus, with a large volume of free fluid in the POD, suggestive of haemoperitoneum.

INVESTIGATIONS

- ▶ Full blood count (Hb 7.0)
- ▶ Renal function tests, within normal parameters
- ▶ Human chorionic gonadotrophin >93 000
- ▶ Cross match four units of red blood cells
- ▶ Transvaginal ultrasound.

DIFFERENTIAL DIAGNOSIS

- ▶ Haemoperitoneum.
- ▶ Tubal ectopic pregnancy with associated tubal rupture or primary abdominal ectopic pregnancy with associated haemorrhage.

TREATMENT

The consultant on-call was contacted and an urgent laparotomy performed within 30 min of the patient's arrival. Four units of cross matched blood were made available preoperatively. On peritoneal entry, a 12–14 weeks size fetus was identified free in the abdominal cavity; the placenta remained attached to omentum (figures 1–4). The left fallopian tube was ruptured, and the ovary avulsed suggesting primary tubal ectopic pregnancy with tubal rupture, and secondary omental implantation. A one litre haemoperitoneum was drained, peritoneal washout was performed. Left salpingo-oophorectomy and partial omentectomy

Figure 1 Ruptured left tube and ovary.

Figure 2 Omentum where placenta was attached (chorionic villi confirmed on histology).

Figure 3 Placenta removed from abdomen attached to omentum.

Figure 4 Fetus with umbilical cord attached to omentum via placenta present in abdominal cavity.

were required, and haemostasis was secured. She required a total three units of blood transfusion.

OUTCOME AND FOLLOW-UP

She had an uneventful recovery, and was discharged home on day 3 postoperatively.

Her Hb at discharge was 10.5 g/dl. Histopathology confirmed presence of chorionic villi within the ruptured left fallopian tube and omentum. This confirmed our diagnosis of ruptured primary left tubal ectopic pregnancy, with secondary abdominal implantation.

The patient was followed up 2 weeks postoperatively, and had made a satisfactory recovery. Her urinary HCG was negative. Contraception advice was given, as she did not wish further pregnancies. She failed to attend her 6 weeks follow-up at gynaecology outpatient clinic.

DISCUSSION

The incidence of ectopic pregnancy has remained static in recent years at 11.1/1000 pregnancies and 32000 ectopic pregnancies are diagnosed in the UK within a three year period.¹

Abdominal ectopic pregnancy is a rare event in which the fetus develops in the peritoneal cavity.² The incidence is 1 in 402 pregnancies in developing countries, and 1 in 10 000 pregnancies in the developing world.³

Abdominal pregnancy may be secondary due to tubal abortion or rupture with implantation on any peritoneal or visceral surface or, more rarely primary, due to direct abdominal implantation, with normal fallopian tubes and ovaries and no tubal fistula identified.^{2 4}

Abdominal pregnancy is a life-threatening condition associated with haemoperitoneum. Laparotomy is usually required, with maternal mortality between 0.5% and 18%, and perinatal mortality after the age of viability is achieved, of 40%–95%.⁵

Complications include haemorrhage (which may be massive) potentiating disseminated intravascular coagulation. Visceral damage can occur, with fistulas due to the presence of fetal bones, faecal peritonitis and venous thromboembolism.

Learning points

- Maintain a high index of suspicion for ectopic pregnancy in women of childbearing age.
- Remember ectopic pregnancies can be unusual or atypical.
- Recognise the haemodynamically unstable patient.
- Communication clearly with other specialities and the emergency team, encourage good team working.

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Competing interests None.

Patient consent Obtained.

REFERENCES

1. Royal College of Obstetricians and Gynaecologists guideline no 21. The Management of Tubal Pregnancy May 2004 reviewed 2010. <http://www.rcog.org.uk/womens-health/clinicalguidance/management-tubal-pregnancy> (accessed 21 May 2004).
2. **Bertrand G**, Le Ray C, Simard-Emond L, *et al*. Imaging in the management of abdominal pregnancy: a case report and review of the literature. *J Obstet Gynaecol Can* 2009;**31**:57–62.
3. **Ombelet W**, Vandermerwe JV, Van Assche FA. Advanced extrauterine pregnancy: description of 38 cases with literature survey. *Obstet Gynecol Surv* 1988;**43**:386–97.
4. **Giannopoulos T**, Katesmark M. Ruptured tubal ectopic pregnancy with secondary implantation in the pouch of Douglas. *J Obstet Gynaecol* 2004;**24**:199–200.
5. **Atrash HK**, Friede A, Hogue CJ. Abdominal pregnancy in the United States: frequency and maternal mortality. *Obstet Gynecol* 1987;**69**:333–7.

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