Ruptured Cornual Ectopic Pregnancy: A Case Report

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BACKGROUND

Cornual ectopic pregnancies (CEP) represent a rare, but important type of ectopic pregnancy as they can result in comparatively more significant morbidity and mortality (1,2). CEP are defined as pregnancies located in the uterine cornua and account for approximately 2-4% of ectopic pregnancies (1,3–6). Timely and accurate diagnosis is important to reduce the risk of significant intra-abdominal haemorrhage from rupture. CEP remain a difficult type of ectopic pregnancy to diagnose due to low sensitivity and specificity of symptoms and imaging in practice (1,7). Risk factors include pelvic inflammatory disease, endometriosis, uterine leiomyoma, previous salpingectomy/pelvic surgery and assisted reproductive techniques (6,8–10).

Potential treatment options include medical management with methotrexate or surgical management with laparoscopic or laparotomic resection or cornuostomy given the risk of mortality with expectant management (1,9,11). There are, however, no precise management protocols, nor is there sufficient data to describe the implications of CEP on future fertility (1).

CASE PRESENTATION

A 32 year old female, gravida 4 para 2, presented to the emergency department at 6 weeks gestation by dates with a 4 hour history of acute onset crampy generalised abdominal pain associated with nausea and a syncopal episode on mobilisation. The patient's background was significant for 2 previous Caesarean sections, a chlamydia infection 4 years prior that had been successfully treated and an elevated body mass index of 38.

On admission she was hypotensive with a blood pressure of 92/63 and a heart rate of 77. On examination her abdomen was initially soft with generalised tenderness, maximally in the left iliac fossa. Formal pelvic ultrasound reported no intrauterine gestational sac, a cystic 16 x 14mm mass in the right adnexa that moved separately to the ovary, and 674ml of complex free fluid concerning for a ruptured ectopic pregnancy. Following stabilisation with IV fluid resuscitation, the patient was consented for operative management by the gynaecology team.

Laparoscopy revealed haemoperitoneum on entry, estimated at 1.5L. Filmy adhesions were noted over the right ovary, right fallopian tube and Pouch of Douglas consistent with endometriosis. The uterus appeared adenomyotic with a pedunculated fibroid close to the right cornua. Although sonographic suspicion was for a right adnexal ectopic pregnancy, a left, actively bleeding cornual ectopic pregnancy was identified intra-operatively. Left salpingectomy and resection of the cornual pregnancy were performed. The patient required 2 units of packed red blood cells to treat symptomatic anaemia in addition to extensive fluid resuscitation. She otherwise recovered well post-operatively and has a strong desire for future pregnancy.

Figure 1. Ultrasound demonstrating right cystic adnexal structure

Figure 2. Intra-operative laparoscopic identification of bleeding cornual ectopic pregnancy

DISCUSSION

CEP, whilst rare, can be life-threatening, with up to 48.6% risk of rupture, resulting in potentially devastating consequences for patients (12). Clinical presentation, bhCG and ultrasound (particularly transvaginal) are typically used for diagnosis (6), however CEP are still difficult to accurately confirm, and thus, treat. Diagnosis is more easily made when specific ultrasound findings are present, including an eccentrically located gestational sac surrounded by asymmetrical myometrial tissue with an empty uterine cavity (13), however these findings are often not present or easily detectable (6). This case further illustrates the poor sensitivity of ultrasound, while also reiterating the importance of timely management in the setting of rupture.

The lack of established guidelines and paucity of literature surrounding CEP further exacerbate the difficulty clinicians face in management of this condition and highlight a knowledge gap that requires further research to improve patient care.

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