CASE REPORT

Chronic tubal ectopic pregnancy: a rare but challenging diagnosis

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SUMMARY

A 34-year-old woman without any medical history presented to our hospital emergency unit with a history of 4 days of progressively increasing pain in the left iliac fossa, fever and vaginal bleeding for the past 3 weeks. Urine pregnancy test and serum bhCG were negative. CT scan showed a left pelvic mass compatible with a tubo-ovarian abscess. After transfer to our gynaecology unit, transvaginal ultrasound revealed an empty uterus with a heterogeneous mass in the left adnexal area. We performed a laparoscopy, which revealed an enlarged left haematosalpinx with firm adhesions to the surrounding organs, but no abscess. A total left salpingectomy was undertaken and the histopathological examination revealed the presence of chorionic villi, suggesting the diagnosis of chronic ectopic tubal pregnancy. The postoperative course was uneventful.

BACKGROUND

Chronic ectopic pregnancy (CEP) is a potentially life-threatening condition that is diagnostically challenging. Clinical presentations are varied. Often, but not exclusively, CEP is associated with a negative pregnancy hormone assay, degenerative gestation surrounded by inflammatory mass of organised haematoma and perigestational adhesions.¹ However, there is no universal agreement about the definition of this entity in the literature. Some authors defined CEP according to intraoperative findings, whereas others use the clinical picture to make the diagnosis. We believe awareness to this condition is of interest to any general practitioner because it can easily be missed, with potential life-threatening consequences.

CASE PRESENTATION

A 24-year-old woman, gravida 0, para 0, with no medical history presented to the general emergency adults unit with progressively increasing pain in the left abdomen and left iliac fossa, associated with fever of 3–4 days. She also described persistent vaginal bleeding beginning 3 weeks earlier. The urinary pregnancy test was negative. On initial clinical examination, there was rebound in the left iliac fossa, but no guarding. Blood pressure was 102/51 mm Hg, heart rate was 76 bpm and temperature 38°C. The CT scan showed a left adnexal mass of 5.6×4.5 cm compatible with a tubo-ovarian abscess, without other significant abnormalities (figure 1). The patient was referred to our gynaecological emergency unit. Last menses dated 2 months earlier and the patient was known to have cycles of approximately 35 days. She was

Figure 1 CT scan: left adnexal mass of 5.6×4.5 cm compatible with a tubo-ovarian abscess.

sexually active and has been with the same partner for the past 4 months, using condoms intermittently and no other form of contraception. Her gynaecological history was unremarkable. On vaginal examination, there was some old blood, but no abnormal discharge. Pelvic palpation was associated with cervical and left adnexal tenderness and presence of an elastic mobile mass in the left adnexal area, measuring approximately 6 cm.

INVESTIGATIONS

Serum bhCG was 9 U/L, considered as negative according to our laboratory standard (<10 U/L). Haemoglobin level was 112 g/L, white cell count was 9.2 g/L without 'left deviation', C reactive protein 60 mg/L and platelet count was 202 g/L. Examination of vaginal discharge under the microscope showed red cells and few leucocytes. The findings on transvaginal ultrasound were an empty uterus and a moderate quantity of free fluid in the pouch of Douglas with a heterogeneous mass of 51.8×6.5 mm in the left adnexa (figure 2).

DIFFERENTIAL DIAGNOSIS

Acute abdominal pain and vaginal bleeding in a sexually active woman of reproductive age could raise the suspicion of pelvic inflammatory disease, but also complications of a possible pregnancy. Other potential causes include uterine pathologies (polyps, necrotising fibroid), endometriosis, ovarian cyst complications (haemorrhage, torsion) and cervical, uterine or ovarian neoplasm. Other abdominal pathologies such as appendicitis, urinary tract infections or nephrolithiasis must be excluded. In cases of positive pregnancy test, it is mandatory to localise the pregnancy, because of risk for ectopic pregnancy, miscarriage or septic abortion.

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Figure 2 Transvaginal ultrasound: heterogeneous mass of 51.8x6.5 mm in the left adnexa.

TREATMENT

Based on clinical signs and radiological findings, a tubo-ovarian abscess was initially suspected and a first dose of intravenous antibiotherapy by amoxicillin, clavulanic acid and doxycycline was administered. On emergency laparoscopy, we found a left pelvic mass of unknown origin raising the rectosigmoid junction, attaching it to the left pelvic wall and to the rectum by very firm and inflammatory adhesions. There was no sign of infection on the other tube, which is unusual in case of pelvic inflammatory disease. Adhesiolysis was very difficult and progressive, isolating the mass from the rectum, with dense inflammatory reaction on the intestinal serosa. The mass was revealed to be a voluminous left enlarged haematosalpinx and total left salpingectomy was carried out (figure 3). All materials were sent for histopathology. The right adnexa and the uterus were normal.

OUTCOME AND FOLLOW-UP

Histopathological examination of the laparoscopic specimens revealed acute inflammatory cell infiltrate and occasional

necrotic and partly necrotic chorionic villi in the left tube. Workup for sexually transmitted disease, including specimens from the cervix and peritoneum, was negative. The patient recovered uneventfully.

DISCUSSION

CEP is an enigma. Owing to the paucity of clinical and laboratory findings associated with this abnormality, very few case reports have been published during the past 10 years.^{2,3}

The clinical features of CEP are similar to those of acute ectopic pregnancy, with amenorrhoea, abdominal pain and abnormal vaginal bleeding being common. Nevertheless, its clinical presentation is generally mild, and symptoms are subtle.⁴ One differing feature is the recurrent presence of a pelvic mass on examination or gynaecological ultrasound. In addition, duration of symptoms is often longer in CEP, with more remote onset of pain in general and longer amenorrhoea.⁵ In our case, the patient presented with acute abdominal pain and 3 weeks of vaginal bleeding.

CEPs may persist without rupture; long enough for the trophoblast to degenerate, cease production of bhCG, detectable only with very sensitive bhCG assays.⁶ The presence of blood, trophoblastic tissue and disrupted tubal tissue in the peritoneal cavity can cause inflammatory response, resulting in adhesions; a process often accompanied by fibrin deposition and angiogenesis.

Accurate preoperative diagnosis is often difficult to make because of the high incidence of negative pregnancy test results as a consequence of the very small amount of live villi, subtle or absent symptoms and the poor specificity of ultrasonographic features.⁷ The sonographic findings may be similar to those of pelvic inflammatory disease, leiomyoma, endometrioma, complex ovarian cyst and ovarian neoplasma.⁸ They include a complex heterogeneous extrauterine mass with high velocity and low impedance colour flow Doppler on its surface.⁸ In addition, CT scan cannot reliably detect CEP and can be easily misleading. The most reliable differentiating feature seems to be the operative findings of haematosalpinx and adhesion formation, incorporating uterus, bowel and the surrounding organs. The final diagnosis is histopathological.⁷ As CEP can potentially rupture the tube, it represents a life-threatening condition which mandates timely diagnosis.

Figure 3 Laparoscopy: enlarged left haematosalpinx.

In conclusion, clinical presentation of CEP is often misleading and varied depending on the complex interaction between trophoblastic growth, tubal bleeding and patient's response. Accurate diagnosis becomes possible only after exploratory laparoscopy.

Learning points

- ▶ Preoperative diagnosis of chronic ectopic pregnancy is often impossible.
- ▶ Chronic ectopic pregnancy should be considered in the differential diagnosis of patients with adnexal mass.
- ▶ Chronic ectopic pregnancy may present with a negative urinary pregnancy test and very low or even negative serum bhCG levels.
- ▶ The clinical presentation and the sonographic patterns of chronic tubal ectopic pregnancy may be similar to those of a pelvic abscess.

Competing interests None.

Patient consent Obtained.

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