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Case Report

Spontaneous heterotopic pregnancy: a case report

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ABSTRACT

Spontaneous heterotopic pregnancy is a rare pathology. It is a diagnostic and therapeutic emergency due to the risk of hemorrhagic complications of ectopic pregnancy. This report discusses a case of ruptured spontaneous heterotopic pregnancy whose ectopic location was tubal, associated with an intrauterine pregnancy death at 07 weeks of gestation. Surgical treatment was done by laparotomy.

Keywords: Heterotopic pregnancy, Tubal pregnancy, Ultrasound, Laparotomy

INTRODUCTION

Heterotopic pregnancy is the coexistence of an intrauterine pregnancy and an extrauterine pregnancy.^{1,2} The spontaneous form is very rare. Ectopic tubal localisation is the most common, with haemoperitoneum due to tubal rupture the main risk.³ Diagnosis and treatment must be early to avoid complications. We report a case of spontaneous heterotopic pregnancy diagnosed by ultrasound at 7 weeks of gestation with massive haemoperitoneum.

CASE REPORT

The patient was a 39-year-old, designer, she was G3P2 (one vaginal delivery and one caesarean delivery five years ago). She had never undergone ovarian stimulation or any other form of assisted reproductive technology. Symptoms began three days before her admission by pelvic pain on the right side in a context of amenorrhoea of approximately eight weeks, based on the date of her last menstrual period. As the pain persisted and then spread throughout her abdomen, she consulted a health centre equipped with basic emergency obstetric and neonatal care (BEMONC).

A pelvic ultrasound revealed an heterotopic pregnancy with the presence of a large amount of haemoperitoneum (Figure 1).

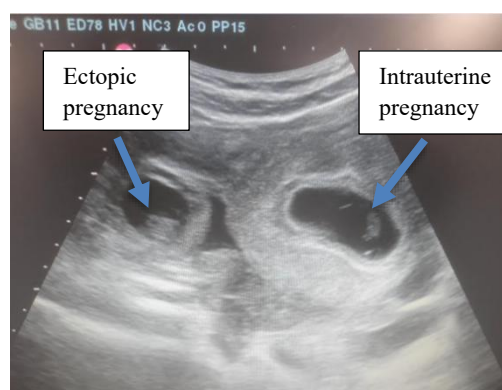


Figure 1: Ultrasound image of heterotopic pregnancy

A gestational sac was intrauterine with an embryo of 07 weeks+01 days without cardiac activity. The second gestational sac was extrauterine on the right side with a live embryo of 07 weeks+02 days. Because of the absence of a surgical room in the peripheral health centre equipped

with BEmONC, the patient was referred to us for treatment. On admission, the patient was conscious and showed signs of hemorrhagic shock (agitation, profuse sweating, intense thirst, low blood pressure, thready pulse, polypnoea and pale conjunctiva). The abdomen was tender on palpation particularly at the umbilicus. Speculum examination revealed a purplish cervix without metrorrhagia. Given this picture of a ruptured ectopic pregnancy with hemorrhagic shock, an emergency laparotomy was indicated. During surgery, we aspirated 1800 cc of haemoperitoneum. The uterus was gravid at about 8 weeks of gestation and the right fallopian tube was the site of a ruptured ectopic pregnancy (Figure 2).

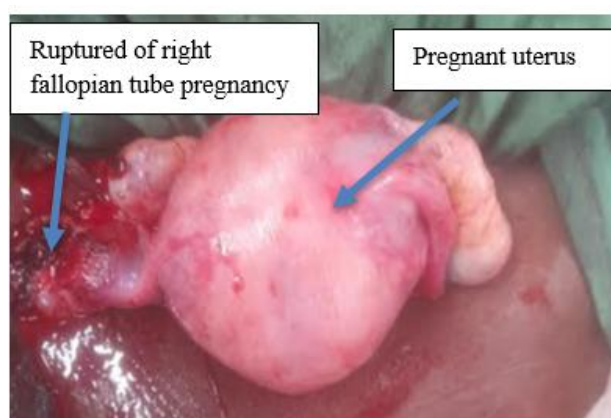


Figure 2: Ruptured ectopic pregnancy during the surgery.

A right salpingectomy was performed. The preoperative biological analysis revealed severe anaemia at 6 g/dl, for which an iso-group iso-Rhesus blood transfusion was performed. The intrauterine pregnancy was terminated using 600 µg of misoprostol administered intravaginally. The outcome was favourable and the uterus was satisfactorily empty on endovaginal ultrasound 48 hours after the use of misoprostol. The patient was discharged after 3 days of hospitalisation. Pathological examination of the salpingectomy specimen confirmed the ectopic pregnancy.

DISCUSSION

Heterotopic pregnancy is a rare pathology with a frequency ranging from 1/30,000 to 2/10,000. This frequency is increasing due to the development of assisted reproductive technology.¹ In this case, it was a spontaneous pregnancy without any history of medical follow-up for infertility. Many theories attempt to explain the pathophysiology of the spontaneous heterotopic pregnancy. It may be due either to successive fertilisation of two eggs by two spermatozoa at different times, or to two simultaneous fertilisation events with a delay in the capture or tubal transit of one of the fertilised eggs.¹ The fallopian tube is the most common site of ectopic implantation. Some cases of abdominal and ovarian ectopic implantation have been described in the

literature.^{1,4} The diagnosis of heterotopic pregnancy must be made early, before haemorrhagic complications. Functional signs are: amenorrhoea, pelvic pain and metrorrhagia. Pelvic ultrasound is the best diagnostic test.^{5,6} In our case, the diagnosis was late by ultrasound scan at the stage of tubal rupture, with signs of hemorrhagic shock. This raises the issue of delays in our patients seeking medical attention, one of the causes of high maternal mortality rates in our country, which stands at 385 deaths per 100,000 live births according to 2021 health statistics.⁷ Regarding treatment, if the intrauterine pregnancy is progressing, it is possible to surgically remove the ectopic egg by laparoscopy or laparotomy, allowing the intrauterine pregnancy to continue to term.^{8,9,10} In the literature, 30 to 75% of intrauterine pregnancies progress to term after surgical treatment of the ectopic pregnancy.^{1,11,12} The outcome of intrauterine pregnancy depends on many factors, such as the mother's condition at the time of diagnosis and the location of the ectopic pregnancy. Indeed, hypovolemic shock in the mother or a cornual ectopic pregnancy can lead to a poor prognosis for intrauterine pregnancy.¹³ Hypovolemic shock could explain the termination of intrauterine pregnancy in our patient.

CONCLUSION

Ectopic pregnancy is a rare pathology. If diagnosed late, it can be associated with serious complications that are life-threatening for the patient. For this reason, during a first-trimester obstetric ultrasound scan, it is always necessary to assess the condition of the adnexa, as an intrauterine pregnancy may conceal another pregnancy outside the uterus.

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