

Spontaneous Ovarian Heterotopic Pregnancy at 12 Weeks of Gestation: A Rare Case Report

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Abstract: Ovarian heterotopic pregnancy is a rare diagnosis with few reported cases. Extremely rare among women who conceive naturally, the occurrence of an ovarian heterotopic pregnancy is a singular event as it comprises only 2.3% of all heterotopic pregnancies. We describe a case of a 42-year old patient in the 12th gestational week with a diagnosis of ruptured primary ovarian heterotopic pregnancy. A transabdominal ultrasound scan showed an ovarian and an intrauterine heterotopic pregnancy with large hemoperitoneum. This was managed by laparotomy. Heterotopic pregnancy can occur in the absence of any predisposing risk factors, clinical awareness is advised. Early diagnosis and adapted treatment can lead to a successful intrauterine pregnancy outcome.

Keywords: heterotopic pregnancy, ovarian pregnancy, natural conception.

INTRODUCTION

Heterotopic pregnancy is defined as a concomitant intrauterine and ectopic pregnancies. It occurs rarely in a spontaneous menstrual cycle, the incidence is estimated to 1 in 30000[1]. The occurrence of an ovarian heterotopic pregnancy is a singular event as it comprises only 2.3% of all heterotopic pregnancies [2].

The risk of this event has increased owing to modern reproductive medicine and upsurge of pelvic inflammatory disease [3]. Preoperative diagnosis is quite difficult, and this situation creates a vital risk to the mother and intrauterine pregnancy.

In this report we present a case with a spontaneous ovarian HP at 12 weeks gestation complicated by rupture and huge hemoperitoneum.

CASE REPORT

It is about a 42 years old woman, gravida 3 para 2 living 2, two normal vaginal deliveries, referred to our center in emergency department with history of three months of amenorrhea and abdominal pain of two days duration. Current pregnancy included one prenatal visit without sonographic examination.

It was a spontaneous conception and there were no diseases or abdominal surgery in medical history and no risk factors of extrauterine pregnancy. On examination, she was pale, tachycardic at 126 beats per minute with a blood pressure of 90/60 mmHg. Abdominal examination revealed generalized abdominal tenderness.

Pelvic examination revealed an enlarged uterus corresponding to 12 weeks of pregnancy. In addition, a tender mass was also palpable in her right adnexa, speculum showed a closed cervical os and there was no bleeding.

Her hemoglobin was 7.5 g/dl with normal platelet count. Transabdominal ultrasound scan revealed a single live intrauterine pregnancy of 12 weeks and an ectopic pregnancy was seen in the right adnexa of 11 weeks and 5 days with a crown crump length of 48 mm and fetal cardiac activity (figure 1). A large hemoperitoneum was present in the cul-de-sac and in Morrison's space and a diagnosis of a ruptured heterotopic pregnancy was made (figure 2).

An urgent laparotomy revealed an enlarged uterus according the gestational age, the right ovary contained a gestational sac with embryo and hemorrhagic tissue, the ipsilateral tube was intact, and the presence of approximately 1 liter of

hemoperitoneum (figure 3). Right oophorectomy was done with removal of the hemoperitoneum, the left ovary and fallopian tube were normal, peritoneal lavage was performed and hemostasis was achieved. She was transfused with four units of blood during and after the

surgery and her postoperative period was uneventful. The intrauterine live gestation was allowed to continue. Histopathological examination of the resected specimen confirmed an ovarian ectopic pregnancy.



Fig-1: transabdominal ultrasound showing viable pregnancies both in adnexa and uterus



Fig-2: transabdominal ultrasound showing ovarian pregnancy at 12 weeks approximately



Fig-3: operative findings during laparotomy showing ovarian embryo and gravid uterus

DISCUSSION

The reported incidence of heterotopic pregnancy varies, from 1:100 to 1:500 with the use of assisted reproductive technology (ART) to 1:30,000 pregnancies of natural conception [4].

Ovarian heterotopic pregnancy is a rare diagnosis with few reported cases; in literature we found only 5 cases of spontaneous ovarian HP [5].

Diagnosis is rather difficult to find because clinical presentations of ovarian and tubal pregnancies are similar. Seventy percent of ectopic pregnancies are diagnosed between 5 weeks and 8 weeks of gestation,

20% between 9 weeks and 10 weeks of gestation, and 10% after 11 weeks of gestation [4].

In early gestation, Ultrasound examination of ovarian pregnancy can confuse us with a corpus luteum or a tubal abortion in peritoneum. Often the diagnosis is made during laparoscopy or after the histopathological report.

diagnosis of a primary ovarian pregnancy must follow Spiegelberg four criteria [6] taken back by Riethmuller [7]: the gestational sac must occupy the normal position of the ovary; the tube on the side of the pregnancy must be normal and separate from the ovary; the gestational sac must be connected to the uterus by the utero-ovarian ligament; and ovarian tissue must be in the wall of the gestational sac. Our case fulfilled all the above criteria.

The traditional method of treating an ovarian pregnancy is laparoscopic wedge resection or ipsilateral oophorectomy with minimal manipulation of the gravid uterus [8].

Laparoscopic surgery provides a superior method for diagnosis and management of ectopic or ovarian pregnancies owing to its reduced hospital stay, limited postoperative analgesia requirements, and better visualization of the operative field. Furthermore, it avoids uterine handling and drying from exposure [5].

Conservative treatment is the rule; however an oophorectomy is justified in advanced gestation term [9]. In our case laparotomy was indicated owing to the advanced term of ovarian pregnancy, the acute abdominal pain, and the large hemoperitoneum. So we performed a right oophorectomy.

CONCLUSION

Coexistence of intrauterine pregnancy and ectopic pregnancy especially ovarian pregnancy is always possible, every clinician must be aware of this eventuality despite the absence of risk factors.

Early diagnosis can lead to a conservative treatment by laparoscopy that may minimize the maternal morbidity and preserve the normal course of intrauterine pregnancy.

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