Spontaneous Heterotopic Pregnancy: Case Report and Literature Review

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Abstract- Heterotopic pregnancy, a rare form of pregnancy, can occur Simultaneously intrauterine and extrauterine. This can be a life-threatening condition and can be easily overlooked if undiagnosed. The patient was a 27-year-old woman, gravid3, para1, live1 and abortion1, at 10 weeks and 1 day by last menstrual period who went to the emergency room complaining of pain in the lower abdomen form 3 days ago. Pelvic ultrasound revealed both live intrauterine and extrauterine pregnancy by gestational age based on the Crown-rump length diameter, 9 weeks and 3 days with moderate to severe hemoperitoneum. The heterotopic pregnancy diagnosis is difficult and requires a high index of suspicion.

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Keywords: Ectopic pregnancy; Heterotopic pregnancy; Abdominal pain; Natural conception

Introduction

The incidence of ectopic pregnancy has increased dramatically worldwide in the last few decades and currently accounts for 2% of all pregnancies (1). Heterotopic pregnancy, a rare form of ectopic pregnancy, can occur Simultaneously in the intrauterine and extra uterine. Although EP is not uncommon in women of childbearing age, heterotopic pregnancy is rare in the general population, with an estimated incidence ranging from 1:7963 to 1:30,000 (2,3). With the advent of Assisted Reproduction Techniques (ART) (4-6) and induction of ovulation, The overall incidence of heterotopic pregnancy has increased to about 1 in 3900 pregnancies (7). Heterotopic pregnancy can be a life-threatening condition and can be easily overlooked if undiagnosed (8).

We present a rare case of ectopic pregnancy with intrauterine viable pregnancy and right fallopian tube rupture pregnancy in a natural conception, without any known risk factors.

Case Report

The patient was a 27-year-old woman, gravid3, para1, live1 and abortion1, at 10 weeks and 1 day by last menstrual period and 9 weeks and 4 days by her first sonogram. In addition, her first transvaginal sonogram was reported: a single alive fetus in the endometrial cavity was seen. She went to the emergency room complaining of pain in the lower abdomen form 3 days ago. The pain had worsened the day before. In physical examination, the patient's abdomen was distended on the right side and had tenderness on the left side. Pelvic ultrasound revealed both live intrauterine and extrauterine pregnancy of 9 weeks and 3 days with moderate to severe hemoperitoneum.

An emergency laparotomy was performed. We found a ruptured heterotopic pregnancy in right fallopian tube. 1.3 liters of blood was removed from the peritoneal cavity of the patient. Both the ovary and the left fallopian tube appeared normal. The size of uterus was 10 weeks of gestation. The right salpingectomy was accomplished. The hemoperitoneum and peritoneal lavage was removed. We supported the intrauterine pregnancy with administering Cyclogest suppository for 2 weeks. The patient gave birth at 38 week and 2 days of gestation. Her baby was a boy and weighed 2860 grams and was completely healthy.

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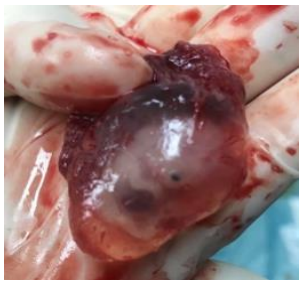

Figure 1. Ectopic pregnancy in the fallopian tube

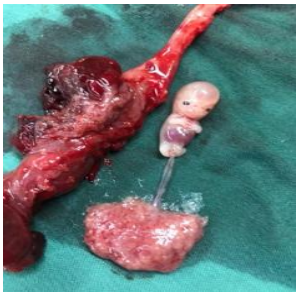

Figure 2. Ruptured left fallopian tube and heterotopic embryo with placenta

Discussion

Heterotopic pregnancy, a rare form of ectopic pregnancy, that can occur at the same time in the intrauterine and extrauterine.

Although EP is not uncommon in women of childbearing age, heterotopic pregnancy is rare in the general population, with an estimated incidence ranging from 1:7963 to 1:30,000 (2,3).

There are various risk factors for heterotopic pregnancy such as history of ectopic pregnancy and induction of ovulation. Therefore, other risk factors such as a history of pelvic surgeries and tubal manipulation and a history of pelvic inflammatory disease (PID) can also increase the risk of heterotopic pregnancy.

This type of ectopic pregnancy is more likely after (a) assisted reproductive techniques, (b) in condition of persistent or rising chorionic gonadotropin levels after dilatation and curettage for an induced or spontaneous abortion, (c) when the uterine fundus is larger than for menstrual dates, (d) when more than one corpus luteum is seen in the natural conception, and (e) when there is no vaginal bleeding in the presence of signs and symptoms of ectopic gestation (9).

The clinical manifestations of heterotopic pregnancies are similar to the symptoms of miscarriage and ectopic pregnancy elsewhere. Symptoms are lower quadrants abdominal pain, adnexal mass, peritoneal irritation, and an enlarged uterus (3).

All pregnant women with complaints of abdominal pain or vaginal bleeding should be assessed for the exact location of the pregnancy by ultrasound examination. If the clinician has little doubt of heterotopic pregnancy after seeing intrauterine pregnancy in ultrasound, ectopic pregnancy may be mistakenly called corpus luteum cyst (10).

In this case report, we present a patient who had heterotopic pregnancy without any risk factors. Intrauterine pregnancy was also reported in her first sonography (in 7 weeks of gestation based on LMP) without any abnormal findings. When the patient came to our emergency room with abdominal pain, in ultrasonography we found that fetal heart rate was seen in both intrauterine and left adnexa and hemoperitoneum was detected. As a result, heterotopic pregnancy and tubal rupture was diagnosed.

Treatment is depended on the location of the ectopic pregnancy. The least invasive treatment should be considered for these patients to preserve the simultaneous intrauterine pregnancy. If the pregnancy has no rupture, local injection (potassium chloride) into the gestational sac under ultrasound guidance can be suggested as an effective treatment. In a condition such as the hemodynamic instability of the patient or the presence of signs of rupture of the fallopian tube, surgery is the first line of treatment. Laparoscopic or laparotomy salpingectomy is the standard surgical approach for these patients (11,12). In our case due to left ruptured fallopian tube and presence of hemoperitoneum, we performed salpingectomy via laparotomy.

As mentioned above a heterotopic pregnancy is extremely rare, but it can still happen in the natural conception without any risk factors, like our case. Therefore, diagnosis is difficult and requires a high index of suspicion.

Acknowledgments

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