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Case Report

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Heterotopic Pregnancy in Natural Conception – A Case Report

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Abstract

Heterotopic gestation is very rare in natural conception but can be common with assisted reproductive techniques; a high index of suspicion can help in timely diagnosis and appropriate intervention. We report a case of heterotopic pregnancy in a 32-year-old woman presented with hemoperitoneum from ruptured right sided tubal pregnancy with live intrauterine gestation at 12 weeks of amenorrhea, diagnosed on clinical and ultrasound examination.

Keywords: Assisted reproductive techniques, heterotopic

Introduction

Heterotopic pregnancy is defined as the coexistence of intrauterine and extra uterine gestation [1]. It was first reported in the year 1708 as an autopsy finding. This is a rare situation with a reported prevalence of 0.08% in normal conception. The incidence of heterotopic pregnancy is very low. The frequency was originally estimated on theoretical basis to be 1 in 30,000 pregnancies while in assisted reproductive techniques (ART), the incidence is found to be as high as 1%.(1)We present a rare case of heterotopic pregnancy with live intrauterine gestation and ruptured right adnexal gestation in a natural conception.

Case Report

A 32-year-old woman with 12 weeks of amenorrhea was referred in surgical emergencyfrom Gynae department on 20 September 2015with history of pain lower abdomen, constipation, abdominal distention and vomiting for 3days. She was a house wife having 4 children delivered through SVD, last done 6years back, no history of abortion or any abdominal surgery. Clinical examination revealed pulse rate of 110/minute, blood pressure 100/70mm of Hg and temperature was 99oF. She was pallor and thirsty. On abdominal examination her lower abdomen was tender more in right iliac fossa with positive rebound tenderness. Bowel sounds were absent and per rectal examination was unremarkable. Urine pregnancy test was positive. Hemoglobin was 9.7g/dl, TLC 10,600 and platelet count 348,000. Transabdominal ultrasound revealed a single live intrauterine gestation of 12weeks & 6 days with free fluid in the peritoneal cavity, right ovary was not visualized. Provisional diagnosis of a perforated appendix or ruptured right ectopic gestation was suggested in view of clinical history and free intraperitoneal fluid, and an intrauterine gestation. The patient underwent emergency laparotomy. There was ruptured right-sided tubal pregnancy with hemoperitoneum and right salpingectomy was performed; the intrauterine live gestation was allowed to continue. Post operative ultrasound abdomen showed a single live intrauterine gestation of 11weeks & 6 days with good fetal movements and expected date of delivery is 7 April 2016. Two pints of blood transfused post operatively and hemoglobin came 10.4g/dl. She was discharged on 4th post operative day and advised follow up in Gynae department.

Discussion

A heterotopic gestation is difficult to diagnose clinically and laparotomy is performed usually because of tubal pregnancy. At the same time, uterus is congested, softened, and enlarged; ultrasound examinations can nearly always helpful [2].

The incidence was originally estimated on theoretical basis to be 1 in 30,000 pregnancies. However, more recent data indicate that the rate is higher due to assisted reproduction and is approximately 1 in 7000 overall and as high as 1 in 900 with ovulation induction. The increased incidence of multiple pregnancies with ovulation induction and IVF increases the risk of both ectopic and heterotopic gestation [3]. The hydrostatic forces generated during embryo transfer may also contribute to the increased risk. There may be an increased risk in patients with previous tubal surgeries.

Heterotopic pregnancy can have various presentations. It should be considered more likely (a) after assisted reproduction techniques, (b) with persistent or rising chorionic gonadotropin levels after dilatation and curettage for an induced/spontaneous abortion,

(c) when the uterine fundus is larger than for menstrual dates, (d) when more than one corpus luteum is present in a natural conception, and (e) when vaginal bleeding is absent in the presence of signs and symptoms of ectopic gestation [4].

A heterotopic gestation can also present lower quadrant pain in early pregnancy. Most commonly, the location of ectopic gestation in a heterotopic pregnancy is the fallopian tube. However, cervical and ovarian heterotopic pregnancies have also been reported. Majority of the reported heterotopic pregnancies are of single intrauterine pregnancy. Triplet and quadruplet heterotopic pregnancies have also been reported, though extremely rare. It can be multiple as well [4]. They can be seen frequently with assisted conceptions. Other surgical conditions of acute abdomen can also simulate heterotopic gestation clinically and hence the difficulty in clinical diagnosis. Bicornuate uterus with gestation in both cavities may also simulate a heterotopic pregnancy [5].

High resolution transvaginal ultrasound with color Doppler will be helpful as the trophoblastic tissue in the adnexa in a case of heterotopic pregnancy shows increased flow with significantly reduced resistance index. The treatment of a heterotopic pregnancy is laparoscopy/laparotomy for the tubal pregnancy [6].

The illustrated case did not have any risk factor for the heterotopic gestation and presented with ruptured tubal pregnancy with hemodynamic instability due to hemoperitoneum.

A heterotopic pregnancy, though extremely rare, can still result from a natural conception; it requires a high index of suspicious for early and timely diagnosis; a timely intervention can result in a successful outcome of the intrauterine fetus.

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