Spontaneous Heterotopic Pregnancy Presenting with Tubal Abortion

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Abstract

Heterotopic pregnancies are rarely spontaneous. We present the case of a woman who presented with acute abdominal pain. Emergency laparotomy was performed. Intraoperative finding showed right tubal pregnancy and right salpingectomy was performed. Six weeks post-operation, the patient's symptoms and signs of pregnancy persisted and ultrasound showed an intrauterine single viable fetus. The pregnancy was continued to term and a healthy female baby was delivered.

Key word : Heterotopic Pregnancy, Tubal Pregnancy

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Heterotopic pregnancy (coexistence of intra and extra uterine pregnancies) is rarely spontaneous. The incidence has been estimated to be 0.03 per cent of all spontaneous pregnancies[1]. They are more common following assisted conception. With the widespread use of assisted reproductive techniques, especially ovulation induction, the incidence may be as high as 0.75-1.3 per cent of obtained pregnancies [2-5] or even higher when there is preexisting tubal disease[6,7]. Heterotopic pregnancies are increased in women who have had reconstructive pelvic surgery, pelvic inflammatory disease and artificial ovarian hyperstimulation[8]. It is important that diagnosis is made early enough to prevent potentially fatal maternal complications, or damage to the remaining intrauterine pregnancy, however difficult the diagnosis may be[2,4]. We report here a case of heterotopic pregnancy in which an intrauterine pregnancy was established following spontaneous ovulation occurring whilst the woman had another tubal pregnancy.

CASE REPORT

A 31-year-old woman, para 0-0-1-0, presented with acute right lower abdominal pain, brown

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vaginal discharge, nausea and vomiting. The last menstrual period was 4 weeks previously. The complete blood count showed leukocytosis with shift to the left. The pelvic examination revealed normal finding. The diagnosis was acute appendicitis and emergency laparotomy was performed. Intraoperative finding showed right tubal pregnancy and active bleeding from the fimbria with about 200 ml hemoperitoneal and normal appendix. Right salpingectomy was performed. The pathology report of the resected tube confirmed the presence of an ectopic pregnancy with no other abnormal tubal findings. There was no post-operative complication. Six weeks postoperatively, the patient continued to have nausea and vomiting, engorged breasts, and enlargement of the lower abdomen. Ultrasonographic examination showed an intrauterine single viable fetus, fetal crown-rump length 50 mm (GA 11 weeks). The antenatal care was uneventful, and the patient underwent subsequent serial ultrasonographic scans. The patient was delivered of a healthy girl, birth weight 3,200 g at 38 weeks of gestation.

DISCUSSION

A heterotopic pregnancy is in effect a multiple pregnancy with one or more intrauterine pregnancies co-existing with an ectopic one. The ectopic pregnancy is usually tubal but could be ovarian, cervical, cornual or abdominal[5,10]. De Voe and Pratt calculated the occurrence of heterotopic pregnancy to be 1 in 30,000 pregnancies, assuming a 0.37 per cent incidence of ectopic pregnancy and 1.12 per cent incidence of twinning[11]. More recently, Reece et al estimated the actual occurrence of heterotopic pregnancy to be 1 in 7,963 [12]. Approximately 1 in 700 clinical pregnancies achieved using *in vitro* fertilization are heterotopic pregnancy[13]. The use of pharmacologic induction of ovulation, increased incidence of impaired tubal function and transfer of multiple embryos probably contribute to the higher risk of heterotopic pregnancy in this group of women. Prior pelvic inflammatory disease is a well-known predisposing factor for isolated ectopic pregnancies as well as for combined intrauterine and extrauterine pregnancies. A previous report revealed that all five patients with heterotopic pregnancy had a history of pelvic infection[12].

The pre-operative diagnosis of concomitant intrauterine and extrauterine pregnancy is often difficult. Reece et al suggested the following criteria to aid in the diagnosis: 1) a fundus compatible with dates in a patient believed to have an ectopic gestation; 2) two corpora lutea at laparotomy or laparoscopy and an enlarged, soft, and globular uterus; 3) the absence of withdrawal bleeding and the presence of pregnancy symptoms after excision of an ectopic pregnancy; 4) hemoperitoneum after the termination of an intrauterine pregnancy; and 5) the combination of abdominal pain, adnexal mass with pain and tenderness, peritoneal irritation, and an enlarged uterus[12]. This last criterion is most often identified with the physical diagnosis of isolated extrauterine pregnancy. The lack of vaginal spotting in a patient thought to have an ectopic pregnancy is considered to indicate that the patient has a heterotopic pregnancy. However, some authors are not in agreement concerning this symptom as a reliable predictor of heterotopic pregnancy[14,15]. This patient originally presented with acute abdomen, peritoneal irritation, nausea and vomiting, and brown vaginal discharge. The misdiagnosis was acute appendicitis and emergency laparotomy was performed. Intraoperative finding showed right tubal pregnancy and right salpingectomy was performed. She continued to have pregnancy symptoms after excision of an ectopic pregnancy. This finding was compatible with criteria no. 3. Ultrasound was performed and showed an intrauterine single viable fetus compatible with last mentrual date. Ultrasound is an important tool for identifying intrauterine pregnancy. However, in a case with heterotopic pregnancy, this observation may be misleading[15]. A pre-operative ultrasound scan, especially if transvaginal, could identify a heterotopic pregnancy but would more likely suggest intraperitoneal fluid in the presence of a viable intrauterine pregnancy[16,17]. Demonstration by ultrasound of viable intrauterine pregnancy in spontaneous conception is often taken virtually to exclude ectopic pregnancy. A definitive ultrasound diagnosis of heterotopic pregnancy can be made only when both intrauterine and extrauterine fetal cardiac activity can be documented. Transvaginal ultrasound and serial serum β-HCG assays allow monitoring of ectopic and heterotopic pregnancies. This approach is, however, only applicable when the ectopic component is unruptured. After surgical removal of the ectopic component, the intrauterine one is followed-up similarly and the serial levels of β-HCG may be of prognostic value[16].

A prior history of pelvic inflammatory disease, ovulation-inducing medication, and *in vitro*

fertilization with embryo transfer should alert physicians to this possibility. The increased risk of heterotopic pregnancy with assisted conception techniques is well established, but with an increasing incidence of pelvic inflammatory disease the risk of ectopic pregnancy is rising and probably so is the risk of heterotopic pregnancies from spontaneous conception.

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การตั้งครรภ์ในโพรงมดลูกร่วมกับการแท้งจากการตั้งครรภ์นอกโพรงมดลูกบริเวณท่อนำไข่

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การตั้งครรภ์ร่วมกันหลายตำแหน่ง เช่น ในโพรงมดลูกพร้อมกับนอกโพรงมดลูกที่เกิดขึ้นเองตามธรรมชาตินั้นพบได้น้อยมาก ได้รายงานผู้ป่วยหญิงที่มาด้วยอาการปวดท้องน้อยเฉียบพลัน ได้รับการผ่าตัดฉุกเฉิน พบการตั้งครรภ์บริเวณท่อนำไข่ข้างขวา จึงทำการผ่าตัดท่อนำไข่ข้างขวาออก หลังการผ่าตัด 6 สัปดาห์ ผู้ป่วยยังคงมีอาการและอาการแสดงของการตั้งครรภ์อยู่ จากการตรวจด้วยคลื่นเสียงความถี่สูง พบการตั้งครรภ์ปกติในโพรงมดลูก การตั้งครรภ์ได้ดำเนินไปตามปกติจนครบกำหนด คลอดทารกเพศหญิงสุขภาพแข็งแรงดี

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