Ectopic Pregnancy Coexisting with Intrauterine Pregnancy

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ABSTRACT

A 28-yeaar-old woman, para 2^{+0}, presented with amenorrhoea for 10 weeks, associated with right lower abdominal pain and vaginal bleeding for 3 weeks. She later developed progressive abdominal distension and dizziness. A tender (6cm in diameter) mass was felt in the right iliac fossa, and the uterus was 8 week size. A pelvic ultrasonography showed a singleton intrauterine pregnancy, a right adnexa mass and fluid in the rectouterine pouch. At laparotomy, a ruptured right ampulary gestation sac and 8 week size uterus were found and a right total salpingectomy done. Postoperative course was uneventful and the patient delivered a live, 2.5kg baby at term. Though heterotopic pregnancy is uncommon, assisted conception may increase the incidence and a high index of suspicion is necessary for prompt diagnosis and treatment *(Nig J Surg Res 2000: 2:158-160)*

KEY WORDS: Heterotopic pregnancy, suspicion

Introduction

Concurrent extrauterine and intrauterine pregnancy or heterotopic pregnancy is uncommon, with a reported incidence of 1 in 30,000 pregnancies. [1-4] This is a report of such a case, and is intended to raise awareness to the condition.

Case report

A 28 year old woman, para $^{2+0}$, presented with a 10 week history of amenorrhoea and right lower abdominal pain and vaginal bleeding for 3 weeks. The vaginal bleeding was initially bright red, but later became brownish. There was associated gradual, but progressive abdominal distension, shoulder tip pain, dizziness and fainting attacks. She had had 2 normal deliveries in the last 3 years. She was hospitalised and treated for puerperal sepsis in her last delivery. There was no history of any form of assisted conception.

Physical examination showed pallor, pulse rate of 100 per minute and blood pressure of 90/60mmHg. The abdomen was full and tender in the suprapubic region; there was a tender mass (6cm in the widest diameter) in the right iliac fossa and mobile in transverse directions. There was no demonstrable free peritoneal fluid. Vaginal examination showed a normal, closed cervix; the uterus was 8-week size. There was a right adnexal mass (6cm in widest diameter), the pouch of Douglas was full and there was brownish altered blood on the finger.

Pelvic ultrasonography showed a singleton intrauterine pregnancy consistent with 7 weeks and 4 days gestational age. There was a right adnexal mass measuring 13mm in diameter and moderate fluid collection in the pouch of Douglas. Haemogram was 8gm/dl.

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At laparotomy, the findings were; haemoperitoneum of 1.5 litres; ruptured right ampullary gestational sac; bulky uterus of 8-week size. A total right salpingectomy was done, the haemoperitoneum evacuated, peritoneal cavity lavaged and wound closed in layers. The patient was transfused with 1000mls of whole blood.

The postoperative course was uneventful and the patient was discharged home on the 8th postoperative day. A repeat ultrasonography before discharge showed a singleton intrauterine pregnancy consistent with 10 weeks and 1 day gestational age. The patient subsequently had an uneventful antenatal care and had a spontaneous vaginal delivery of a live, female baby, weighing 2.5kg at term. Histology of the resected right fallopian tube confirmed ectopic gestation.

Discussion

Heterotopic pregnancy, a rare condition first described by Duverney in 1708, is the simultaneous occurrence of an intrauterine and extrauterine pregnancy. The generally accepted incidence is 1 in 30,000 pregnancies.[1-4] With increased use of assisted reproductive technology, this condition is becoming more common. The reported incidence after embryo transfer is 3 to 4% higher compared to the general population.[5, 6] In addition, the incidence of heterotopic pregnancy is 400 times greater in assisted pregnancies than natural pregnancies.[5] As the incidence of twin pregnancy is higher in Africa than in Europe, Asia and America, the incidence of heterotopic pregnancy may be somewhat higher. However, few cases of heteroptic pregnancies have been reported from Africa compared to North America.

There are various speculations about the aetiology of heterotopic pregnancy. It is evident that there must be two ova, either from one follicle or two. The possibility of superfetation or superfecundation has to be considered. Following intrauterine nidation, the lumen of the tube may become narrowed by decidual proliferation and block the passage of another fertilized ovum. This later may be one fertilized after, or one fertilized at the same time as the first, but with its transmigration delayed by different causes.[3, 7] Infection or its sequelae may cause changes in the lumen of or peristaltic action of the tube so that while one ovum may manage to reach the uterine cavity, the progress of the other ovum may be impeded.[3, 6]

Madhany[1] reported two cases of heterotopic pregnancies from Kenya in which, both women had laparotomy and subsequent salpingo-oophorectomy because of ruptured tubal pregnancy. The intrauterine pregnancies were left intact, progressed well, and continued to term resulting in delivery of normal babies. The present report is similar. A simultaneous, advanced extrauterine and intrauterine pregnancy resulting in normal delivery of one live baby near term and removal of the macerated extra uterine fetus at laparotomy during the puerperium has been reported from Ibadan, Nigeria.[2] The majority of heterotopic pregnancies do not progress beyond the first trimester. In a review [4] of 435 cases of heterotopic pregnancies, only in 46 (10.6 percent) did both the intrauterine and extrauterine pregnancies progress to viability; 43% of the intrauterine pregnancies were delivered alive and survived neonatal period compared to 13 (28.3 percent) of extrauterine births.

The most common clinical presentation is unilateral abdominal pain[5] as in the present report. The diagnosis in our patient was simplified by pelvic ultrasonography, which clearly demonstrated as intrauterine and tubal pregnancy. Transvaginal ultrasonography is more reliable in the diagnosis of combined intra and extrauterine pregnancy.[5,7,8] Beta human chorionic gonadotropin levels are unreliable and misleading for diagnosis.[5,9] A history of twins may be helpful and majority of women are aged 26years and above. A high index of suspicion is, however important.

The earlier the diagnosis is made, the better the prognosis for the intrauterine pregnancy. Treatment depends on the time of

the diagnosis and includes intratubal pregnancy injection of potassium chloride, methotrexate or surgical removal. [6,7] The prognosis for the intrauterine pregnancy is usually good and laparotomy does not appear to disrupt the intrauterine gestation when the gestational sac on ultrasonography is consistent with dates.[5] Surgical intervention to avoid the potential detrimental effects of hemorrhagic shock must be a priority. The uterus should be only minimally and carefully handled in order to avoid injury to the fetus.

With the introduction of assisted reproductive technology in some centres in the country, there may be an increase in the incidence of heterotopic pregnancy. Clinicians working in assisted conception units should be aware of the increased incidence of heterotopic pregnancy and should not be misled by the false reassurance of an intrauterine sac with transvaginal ultrasound at the initial pregnancy viability scan.

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