Heterotopic Pregnancy With a Live Delivery - A Case Report

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Abstract
A 35 year old grandmultiparous patient presented with a 6-week history of amenorrhea. Pelvic ultrasonography revealed a viable intrauterine pregnancy and minimal peritoneal fluid collection. A sudden fall in the packed cell volume and increase in the peritoneal collection led to the suspicion of a heterotopic pregnancy which was confirmed at laparotomy. She had right total salpingectomy for right tubal missed abortion. The intrauterine pregnancy continued and the patient delivered a live infant at term.

Key Words: Heterotopic Pregnancy, Salpingectomy, Live Infant [Trop J Obstet Gynaecol, 2006, 23:174-175]

Introduction

Heterotopic pregnancy is the concurrent existence of an intrauterine and extrauterine pregnancy. This phenomenon was first described in 1708 from an autopsy specimen by Duvency[1]. Far back in 1948, the risk of heterotopic gestation was estimated to be 1 in 30,000 spontaneous pregnancies [2]. However more recent estimates suggest an incidence ranging from 1 in 2,600 to 1 in 8,000 pregnancies for the general population [2, 3]. Heterotopic pregnancy has also been noticed to be more common (1 in 100) following the use of assisted reproductive techniques and poses a unique challenge in this context [4]. In Nigeria, the incidence of heterotopic pregnancy may be higher than the traditional figures [5], because multiple ovulations have long been recognized in Nigerians which records the highest incidence of twining worldwide [6, 7]

Case Report

Mrs. L R was a 35 year-old Para 5^{+1} (3 alive) trader who presented with a history of low abdominal pain of six days' duration, dizziness and passage of mucoid stool for 5 days at a gestational age of 6 weeks and 2 days. There was no associated vaginal bleeding. The vital signs were within the normal limits. An ultrasound scan revealed a live intrauterine gestation and a localized echogenic mass in the right paracolic gutter within which was a sonoluscent focus with bowel loops. There was also a minimal peritoneal fluid collection. The patient was admitted and managed as a case of enteritis in pregnancy. The haematocrit on admission was 0.25. A repeat haematocrit, done after correction of dehydration, was 0.15. The patient was transfused with 2 units of whole blood. The post transfusion haematocrit was 0.22.

She remained stable until a week later when she complained of sudden abdominal pain and extreme weakness. Examination revealed stable vital signs and vague tenderness in the right iliac fossa. A repeat ultrasound scan was done which confirmed the previous findings but noted an increase in the peritoneal fluid collection. This raised the suspicion of a heterotopic pregnancy and the patient was counselled for exploratory laparotomy.

Operative findings were: 2.5 litres of haemoperitoneum, bleeding from the right fimbrial mass measuring 10cm in diameter (Figure 1 - FM), normal ovaries and left uterine tubes, bulky uterus(Figure 1 - UU). Right salpingectomy was performed and she had an uneventful post-operative recovery. A repeat scan a week after the laparotomy revealed a viable intrauterine pregnancy at 8 weeks gestation and she was discharged on the 7^{th} post operative day. Histology revealed chorionic villi and trophoblastic tissue in the right uterine tube. She was registered for antenatal care and had regular follow up. She went into spontaneous labour at a gestational age of 40 weeks and 5 days and was delivered of a live female infant weighing 3.2kg with Apgar scores 8 and 10 at one and five minutes respectively. The puerperium was uneventful.

Discussion

Various risk factors have been implicated in the aetiology and pathogenesis of heterotopic pregnancy [2]. Tubal factor and dizygosity has been implicated in the causation of heterotopic pregnancy [2, 5] and the frequency is said to be dramatically increased to 1% in women who conceive by assisted reproductive techniques [1, 8]. Our patient had no form of assisted reproductive technique and it was more likely that she had spontaneous double ovulation and fertilization with one embryo implanting normally in the endometrium and the other outside the uterus.

Diagnosis is often difficult, as demonstrated in this patient, because ectopic pregnancy is a great mimic[5]. Definitive sonographic diagnosis with transabdominal probe prior to rupture of the ectopic component, as happened in this patient where there is a viable intrauterine fetus, is difficult and only occurs in about 14% of cases. Some authors contend that visualization of intrauterine pregnancy by ultrasonograghy effectively excludes the possibility of ectopic pregnancy based on

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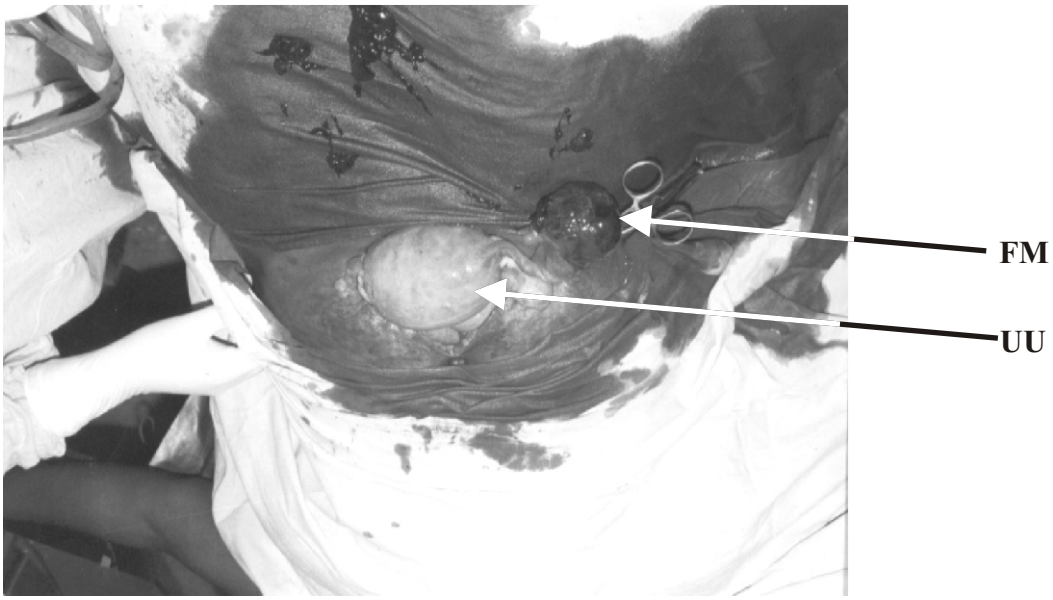
Figure 1



the premise that heterotopic pregnancy is rare [2, 7]. However, it is preferable to err on the side of caution since heterotopic pregnancy is now not as rare as was once thought.

Factors influencing the management of heterotopic pregnancy include the certainty of diagnosis, the gestational age and the clinical presentation of the patient [9]. In the case presented, a laparotomy was necessary because of the haemoperitoneum following the tubal abortion of the extrauterine gestation. Though, it has been reported that eventual miscarriage of the intrauterine pregnancy usually follows salpingectomy for the extrauterine pregnancy [9], cases of live birth following salpingectomy to excise the extrauterine gestation have been reported [10, 11].

Conservative management in which cardiac activity was terminated in the extrauterine pregnancy while the intrauterine pregnancy was carried to term with delivery of healthy infant has been reported[12]. The least common outcome is carrying both the extrauterine and the intrauterine pregnancies to term with both infants surviving [13].

The case presented illustrates the need for a high index of suspicion of heterotopic pregnancy occurring in a natural conception cycle, and the need for Obstetricians to be prepared to rise to the challenge posed by heterotopic pregnancy because it is no longer as rare as we was once thought, especially in this age of assisted conception.

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