Ruptured heterotopic pregnancy and subsequent vaginal delivery at term.

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Abstract

Background: Heterotopic pregnancy is the co-existence of intrauterine and extrauterine gestation at the same time. The condition is life threatening when the ectopic pregnancy ruptures and it is unrecognized.

Objective: To report the first successfully managed case of heterotopic pregnancy in a woman without obvious risk factors in our centre.

Design: Case report.

Setting: University of Port Harcourt Teaching Hospital, Port Harcourt.

Result: A multiparous 30-year-old lady who had vaginal discharge or urinary symptoms. She took some analgesics without relief.

Heterotopic pregnancy is the co-existence of intrauterine (eutopic) and extrauterine (ectopic) pregnancy at the same time. It is a rare entity in a spontaneous cycle with an estimated frequency below one per 30,000 pregnancies. The risk however, increases following assisted reproductive techniques (ART) to as high as 1:100. It is a potentially fatal condition when the ectopic component ruptures.

We present a 30-year-old multipara with no obvious risk factor for heterotopic pregnancy who had laparotomy for the ruptured ectopic component and subsequently had a normal delivery at term.

Case report

A 30-year-old gravida 3 para 2 presented at the emergency department with a one-day history of sudden lower abdominal pain at 7 weeks of gestation. The pain was associated with vomiting and weakness but she had no vaginal bleeding, heterotopic pregnancy with natural conception and salpingectomy for the ruptured ectopic component delivered a live baby at term. Management of the ectopic pregnancy with viable intrauterine pregnancy delivered at term.

Conclusion: Heterotopic pregnancy though rare, is possible in our women without known risk factors. Medical practitioners should have a high index of suspicion when a parous woman presents with lower abdominal pain in the first trimester of pregnancy.

Key words: Heterotopic, Pregnancy, Natural, Ruptured
corresponding to a gestational age of 8 weeks. Another cystic structure with a foetal node was seen in the right adnexum with massive free intraperitoneal fluid (Figure 1). An informed consent for surgery was obtained.

Emergency laparotomy with right salpingectomy was performed. Findings were 2.5 litres of haemoperitoneum, ruptured right ampullary ectopic gestation, 8-week sized uterus, normal left tube and ovaries. There were no adhesions. She had three units of blood transfusion. Her postoperative course was uneventful and she was discharged on the 6th post operative day. Her pregnancy progressed without complications until delivery of a live 4.0kg baby at 40 weeks of gestation.

Figure 1. Ultrasound picture of the extrauterine gestation co-existing with the intrauterine pregnancy

Discussion

Heterotopic pregnancy has been recognized as a clinical entity since it was first reported in France by Duverney in 1708. It is a rare entity in a spontaneous cycle with an estimated frequency below one per 30,000 pregnancies, but the frequency is increasing due to the widespread use of assisted reproductive techniques to as high as 1:100. The condition is potentially catastrophic for the mother and almost always fatal to the embryo when the ectopic component ruptures.

The diagnosis of heterotopic pregnancy remains difficult in the absence of any rupture. It may be overlooked when an intrauterine pregnancy has been confirmed with ultrasonography. Sonologists tend to ignore the screening of the tubes as a result. This leads to failure to diagnose tubal pregnancy co-existing with intrauterine pregnancy. Ideally, the diagnosis should be made when rupture has not occurred. Transvaginal ultrasonography is diagnostic especially if foetal cardiac activity is located at two different implantation sites. However, the diagnosis tends to be easier when there is a tubal rupture with haemodynamic changes and abdominal pain as occurred in this case. The value of ultrasonography came into play as it displayed both pregnancies with free peritoneal fluid making diagnosis and surgical intervention surer and quicker.

This is the first reported case, to the authors' knowledge, in this centre for 22 years of its existence with a total of about 41,072 deliveries (unpublished report). This shows that heterotopic pregnancy is indeed rare in natural conception cycles. This case reported was a multipara with no known predisposing factors for heterotopic or ectopic pregnancy like the use of ART and ovulation induction.

The major complaint for seeking medical care was lower abdominal pain. This is the most common presentation for this condition. Hence efforts must be made to exclude other causes such as abortion, acute appendicitis, pelvic inflammatory diseases, ruptured ovarian or corpus luteum cysts and urinary tract infection. However in any woman with a complaint of lower abdominal pain in the first trimester of pregnancy, the life threatening ruptured heterotopic and ectopic pregnancy must be considered.

There are various treatment options in the management of heterotopic pregnancy. This depends on whether it is recognized before or after rupture of the ectopic component. The suggested
ways before rupture are the use of laparoscopic surgery, local injection of potassium chloride, methotrexate, hyperosmolar glucose or even expectant management. Caution is advised, as the effect of these drugs on the growing intrauterine pregnancy may not be known. When there is obvious rupture with haemoperitoneum as in the case presented the preferred method of treatment is laparotomy with salpingectomy and minimal handling of the pregnant uterus. The major principle of management should be to terminate the ectopic pregnancy at whatever stage the diagnosis is made thereby avoiding the life threatening risk of haemorrhage following rupture. Antenatal and intrapartum periods were managed along standard protocol for every pregnant woman in our centre and were free of complications. She was however considered high risk having had salpingectomy.

Heterotopic pregnancy though rare can occur in a multiparous patient with lower abdominal pains without any known risk factor. Antenatal and intrapartum periods can also proceed without complications following laparotomy for the ruptured ectopic component. This is because the intrauterine pregnancy can also proceed uneventfully to term with normal vaginal delivery, as shown in the above report. Health care givers should have a high index of suspicion of heterotopic pregnancy when a patient presents with lower abdominal pains in early pregnancy.

**References**