Trop J Obstet Gynaecol, 18 (2), October 2001.

Extrauterine Decidual Reaction in Pregnancy Presenting as an Acute Abdomen: A Case Report

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Abstract

Ectopic decidua is usually an incidental finding at caesarean section and is not usually associated with symptoms. A 37-year-old multiparous patient presented with features of acute abdomen in the third trimester of pregnancy. Laparotomy revealed haemoperitoneum of about 2 litres, multiple pelvic adhesions and nodular lesions (measuring 2-4mm across) on the serosa of the uterus. Histology of biopsy specimens from the lesions showed them to be decidual in nature. Postnatal examination at 6 weeks revealed a healthy looking lady with complete involution of pelvic organs.

Key Words: Decidua, Acute Abdomen, Haemoperitoneum. [Trop J Obstet Gynaecol, 2001, 18: 91-92]

Introduction

Although extrauterine decidual reaction is a common occurrence during pregnancy, it is usually mild and rarely noticed during caesarean section [1]. Severe decidual reaction resulting in active haemorrhage is rarely recognized as a cause of acute abdominal pain in pregnancy. We present a case of severe decidual reaction presenting as acute abdominal pain at the 36th week of gestation.

Case Report

Mrs KJ was a 37-year-old Para $2+^0$ (both alive) with supervised full-term normal pregnancies, vaginal deliveries and puerpera in 1990 and 1994. The last normal menstrual period was 17th November 1997. She booked for antenatal care at 14 weeks and the pregnancy was uneventful until 35 weeks' gestation when she complained of lower abdominal pain of 4 days duration. The pain was temporarily relieved by paracetamol. Culture of a mid-stream specimen of urine yielded no pathogenic organisms. A week later, she presented again with a complaint of abdominal pain which was acute in onset, severe, constant in character, aggravated by movement, and associated with right shoulder tip pain. There was no history of trauma or associated vaginal bleeding. Examination revealed an acutely ill-looking young lady in distress. She was moderately pale and not jaundiced. The pulse rate was 110 beats per minute, regular and bounding; and blood pressure was 90/50 mmHg. There was mild pitting pedal oedema. The lung fields were clinically clear and the heart sounds were normal. The abdomen was uniformly enlarged, with rebound tenderness on palpation. Shifting dullness was demonstrable in the flanks. The fundal height was compatible with a gestation of 36 weeks and the fetus was in longitudinal lie with cephalic presentation. There was fetal tachycardia of 165 beats per minute. Vaginal examination revealed normal vulva and vagina. The cervix was long and soft, and the cervical os was closed. There was no abnormal vaginal discharge or bleeding.

Urinalysis was normal and the haematocrit was 21%. Ultrasound scan of the abdomen revealed an antero-fundal placenta with no retroplacental clot. Ultrasound-guided needle aspiration of fluid in the right paracolic gutter confirmed haemoperitoneum. An impression of "idiopathic haemoperitoneum with fetal distress" was made. An urgent laparotomy was performed and a live female baby weighing 2.8kg was delivered by caesarean section. Apgar scores were 5/10 and 7/10 at 1 and 5 minutes respectively. Operative findings included haemoperitoneum of about 2 litres, pelvic adhesions involving the appendix and plastered lesions (measuring 2-4mm across) on the serosa of the uterus. The omentum, liver, gall bladder, kidneys and parietal peritoneum appeared grossly normal. A biopsy was taken from the nodular lesions. Haemostasis was secured by application of figure-of-8 sutures on the bleeding lesions. She was transfused with 3 units of compatible blood and the postoperative course was uneventful. Postnatal examination at 6 weeks revealed a healthy looking lady with complete involution of the pelvic organs. The baby had no congenital abnormality.

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Histology Report

"Three fragments of greyish white tissue aggregating 2 x 1 x 1 cm across were received. Representative sections showed sheets of endometrial stromal cells with marked decidual changes and capillary proliferation. There was no atypia or recognizable endometrial gland or trophoblastic tissue. Few inflammatory cell infiltrate were seen. Features are indicative of nodular aggregates of decidual cells".

Discussion

Ectopic decidua on the serosal surface of the uterus is thought to be a reactive physiological phenomenon related to possible hormonal sensitivity of the superficial sub-coelomic stroma[1]. It is usually associated with pregnancy and is believed to occur as a result of stimulation by placental and ovarian hormones, especially progesterone [2, 3]. Sites in which ectopic deciduas have been identified include the ovary, omentum, serosal surface of the uterus, para-aortic and pelvic lymph nodes and in a few post-partum tubal ligation specimens [2,4]. Although ectopic decidua and endometriosis are hormonally responsive and have been identified in similar sites, there is no evidence of a pathogenetic relationship [1,4].

Ectopic decidua is usually an incidental finding at caesarean section and is not usually associated with symptoms [1]. However, it is a rare cause of intra-abdominal haemorrhage, which can be fatal [5]. This case report is the first confirmed case of acute abdomen due to ectopic decidua since the inception of this hospital over 100 years ago. Common causes of abdominal pain in the third trimester seen in this hospital include ruptured uterus, abruptio placentae and premature labour. A very high index of suspicion is therefore required to diagnose this very rare but potentially fatal condition. The pain experienced by the patient at 35 weeks' gestation may be indicative of a limited "warning" bleed from the prominent vessels on the serosal surface of the uterus. However, the presence of unexplained maternal tachycardia, abdominal pain and signs of free fluid in the peritoneal cavity should raise the index of suspicion of intra-abdominal bleeding. The diagnosis of this rare condition may be assisted by ultrasound-guided needle aspiration of the haemoperitoneum and confirmed by relevant biopsies at laparotomy as was done in this case. A decisive approach is required in the management of acute abdomen in pregnancy because delay in intervention may be fatal. [5, 6, 7]. Spontaneous involution of decidual reaction usually takes 4 to 6 weeks [8]. Although the pathogenesis of this condition is not fully understood, some reports suggest that the process may be aggravated by a subsequent pregnancy [1]. Follow-up and close monitoring should therefore be instituted in subsequent pregnancies in women with ectopic decidual sites.

Conclusion

Ectopic decidua is a rare cause of intra-abdominal haemorrhage. Preoperative diagnosis is impossible since histology of specimen taken at laparotomy is required. It can only be suspected as a cause of haemoperitoneum in pregnancy after exclusion of other common causes of acute abdomen.

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