

Case report

Uncommon case of abdominal pregnancy with spontaneous uterine rupture at 35 weeks



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Abstract

Abdominal pregnancy is a rare form of ectopic pregnancy and is frequently misdiagnosed. Here, we report a case of abdominal pregnancy with spontaneous uterine rupture of the cesarean-section scar at 35 weeks. A 26-year-old Moroccan woman, G2P2, with a previous caesarean section, was presented to the hospital at 35 weeks of pregnancy with the chief complaint of abdominal pain and vaginal bleeding. Ultrasonography identified the term of an abdominal pregnancy without fetal cardiac activity. An abdominal computed tomography was confirmed the diagnosis of abdominal pregnancy with hemoperitoneum. An emergency laparotomy was performed. The dead male fetus was extracted uneventfully. The placenta which was developed through the cesarean-section scar, was attached to intestines and it was removed with great caution and secured haemostasis. The exploration showed a complete rupture of the cesarean-section scar which was sutured in two layers. The patient was transfused with 2 units of packed red blood cells, and she was discharged from the hospital on the 10th postoperative day. The abdominal pregnancy is an extremely rare diagnosis. The suspicious case of abdominal pregnancy should be referred to the experienced clinicians in the centres with diagnosis facilities.

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Introduction

Abdominal pregnancy is a rare form of ectopic pregnancy with high morbidity and mortality for both the mother and the fetus. Ectopic pregnancy represents about 1-2% of all pregnancies, with 95% of those occurring in the fallopian tubes [1]. The incidence of abdominal pregnancy differs in various publications and ranges between 1:10,000 and 1:30,000 pregnancies [2]. Diagnosis can be frequently missed in most poor-resource settings because of poor antenatal coverage, low socio-economic status in most of the patients as well as lack of adequate medical resources [3]. Advanced abdominal pregnancy is still rare, and guidelines for its management are yet unclear with few cases published to date in Africa [4]. We present a rare case of abdominal pregnancy with spontaneous uterine rupture of the cesarean scar at 35 weeks.

Patient and observation

A case of 26-year-old Moroccan woman, G2P2, with a previous caesarean section, was presented to our emergency department at 35 weeks' gestation. The principal complaint on arrival was lower abdominal pain with vaginal bleeding. According to the patient, she was taking regular antenatal care at the rural health centre in her village. The symphysio-fundal height grew steadily up to 28 cm at the last visit, with a presumed cephalic presentation. The patient did not perform any ultrasound during the current pregnancy. On physical examination, she had a heart rate of 102 beats/min, her blood pressure was 109/71mmHg, a respiratory rate of 16 breaths/min and temperature of 37.4°C. Her abdomen was distended, and the fetal parts were palpated under the maternal abdominal wall, with difficulty in specifying the presentation. The sounds of the fetal heart were not perceived. On vaginal examination, the cervix was closed with abnormal

bleeding. An ultrasound scanning was done which revealed an abdominal pregnancy without fetal cardiac activity at 35 weeks. The uterus was empty and the placenta appeared to be attached to the fundus. In addition, an abdominal computed tomography was confirmed the diagnosis of abdominal pregnancy and showed hemoperitoneum (Figure 1). An emergency laparotomy with a midline vertical incision was then indicated. At the opening of the peritoneum, a bloody fluid was sucked up. The fetus that bathed in the abdominal cavity was extracted dead and macerated weighing 2400g. The placenta was attached to intestines and it was removed with great caution and secured haemostasis. The exploration revealed a complete rupture of the cesarean-section scar (Figure 2) which was sutured in two layers. The patient was transfused with 6 units of packed red blood cells intra- and postoperative period. She was kept in the hospital for 10 days postoperatively and discharged home with a follow-up appointment in one month.

Discussion

Abdominal pregnancy can be classified as primary or secondary. It is primitive in case of direct implantation of the embryo in the abdominal cavity; it is the less common type. It is secondary when it occurs after a ruptured tubal pregnancy or a tubal abortion or even a uterine rupture or perforation [5]. In our case, the abdominal location is secondary because the pregnancy was developed through the incision line of the previous cesarean scar. The clinical expression of abdominal pregnancy is variable, depending on the degree of the anatomical distortion it creates and the placental insertion site [6]. Clinical signs are therefore not specific: abdominal pain with intestinal transit disorder, abdominal pain during active movements of the fetus, spreading of the abdomen due to an irregular presentation, palpation of the fetal parts under the maternal abdominal wall [5,6]. Ultrasound can be very helpful

in earlier stages of pregnancy but can be disappointing in later stages. Once the condition is suspected, due to fetal malpresentation, malformations, then purposeful lateral projection sonography and radiography are helpful. An oxytocin stimulation test and the finding of an abnormally high maternal serum alfa-fetoprotein have been proposed [7]. Other radiological studies such as magnetic resonance imaging and computed tomography scan are helpful in the later stages. In our case, we have performed ultrasonography with abdominal computed tomography to confirm the diagnosis. The treatment of abdominal pregnancy is surgical, at best by laparotomy, for a better control of the hemorrhagic risk related to the extraction of the placenta [5,8]. Bleeding from the placental site can be a life-threatening complication during laparotomy.

It is generally recommended to leave the placenta in situ and monitor the patient's human chorionic gonadotropin levels [2,9]. When the placenta is left in place, it is necessary to keep watch over the appearance of the following maternal complications in post-operative period: bowel obstruction, infection, hemorrhage, anemia, fistula [4,10]. These complications can worsen the maternal prognosis, with lethality up to 18% [5,7]. In this case, the placenta was attached to intestines and it was removed uneventfully with great caution. The uterine rupture was sutured in two layers and haemostasis was secured. The case presented here had developed a silent rupture of the incision line linked to the previous cesarean section, through which the abdominal implantation occurred. The fetus continued to grow in the abdominal cavity following a rupture which occurred probably during the first trimester. At 35 weeks of pregnancy, the patient has shown two symptoms of uterine rupture: lower abdominal pain and vaginal bleeding. In the literature, the 12 cases of uterine rupture studied by Teng *et al.* [11] had a prior history of cesarean section. A silent rupture was identified in four of these 11 patients. For the fetus, it is very important to rule out congenital malformations. There are reports of fetal

malformations as high as 40% associated with abdominal pregnancies [2]. When the diagnosis is late, or when it is done intra-operatively, the fetal prognosis is often very pessimistic, with a perinatal mortality which varies between 40% and 95% according to authors [4-6,10]. In this case, it was a dead fetus at 35 weeks' gestation with no congenital malformations.

Conclusion

Abdominal pregnancy, although rare, remains an obstetric emergency that requires attention to diagnosis and management. The pregnant woman must have a good prenatal follow-up. Competent staff in rural health facilities, able to detect the different abnormalities of pregnancy and to indicate adequate treatment is also needed.

Competing interests

The authors declare no competing interests.

Authors' contributions

All the authors have read and agreed to the final manuscript.

Figures

Figure 1: abdominal-pelvic computed tomography shows an abdominal pregnancy

Figure 2: representing complete uterine rupture of the cesarean-section scar

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Figure 1: abdominal-pelvic computed tomography shows an abdominal pregnancy

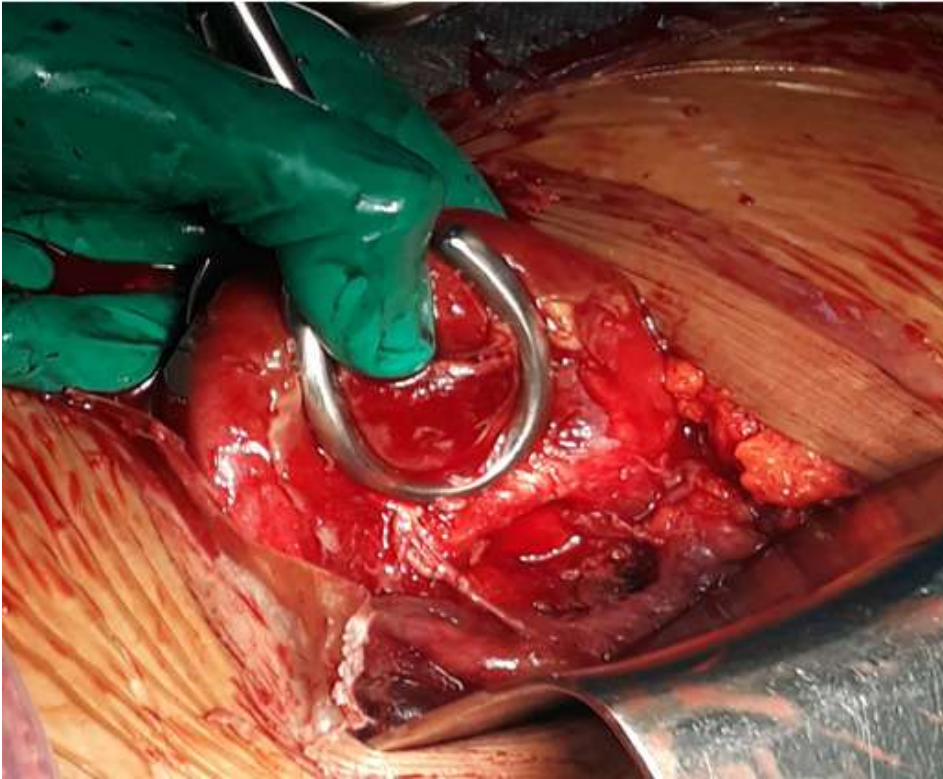


Figure 2: representing complete uterine rupture of the cesarean-section scar