

Surgical Management of an Advanced Abdominal Pregnancy with Massive Hemoperitoneum at 27 Weeks

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Abstract

Case Report

Advanced abdominal pregnancy is a rare form of ectopic pregnancy with very high morbidity and mortality for both the mother and the fetus. Diagnosis and management can pose some difficulties especially in low-resource centers. We report a case of abdominal pregnancy with massive hemoperitoneum. A 40-year-old Moroccan woman, G3P3 (2 alive children), presented with shortness of breath and progressive abdominal distension and pain at 27 weeks' gestation. Ultrasonography demonstrated massive intraperitoneal bleeding and identified the term of an abdominal pregnancy without fetal cardiac activity. An emergency laparotomy was performed. The dead male fetus was extracted uneventfully. The placenta which was implanted into the ruptured isthmus of the left fallopian tube was removed by salpingectomy. The patient was transfused with 6 units of packed red blood cells, and she was discharged from the hospital on the 10th postoperative day. Abdominal pregnancy poses special challenges to obstetricians working in remote areas with limited resources for diagnosis. A high index of suspicion is required in recognizing this condition in order to prevent adverse maternal and fetal outcomes.

Keywords: Advanced abdominal pregnancy, Hemoperitoneum, Salpingectomy.

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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 socioeconomic 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 advanced abdominal pregnancy with massive hemoperitoneum.

CASE PRESENTATION

A case of 40-year-old Moroccan woman, G3P3 (2 alive children), presented to our emergency department at 27 weeks' gestation with a history of progressively worsening abdominal pain. The principal complaint on arrival was shortness of breath with associated progressive abdominal distension. She had

no particular medical and surgical history. She was seen by a health professional only once during the current pregnancy. On examination, she was pale and her blood pressure was 80/20 mmHg. Diffuse abdominal tenderness was present and there was no vaginal bleeding. The ultrasonography was demonstrated massive intraperitoneal bleeding and an abdominal pregnancy without fetal cardiac activity at 27 weeks. The uterus was empty and the placenta appeared to be attached to the fundus.

An emergency laparotomy with a midline vertical incision was performed. After aspiration of 1900 mL of hemoperitoneal fluid, a dead male fetus was extracted uneventfully weighing 1018g (Fig.1). The placenta which was strongly adhered into the left fallopian tube was removed by salpingectomy and the haemostasis was secured (Fig.2). 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.

The histopathology report shows an intra-abdominal pregnancy and the site of rupture was

occurred at the isthmus portion of the left fallopian tube. In addition, all investigations did not show any

abnormality on the fetus.

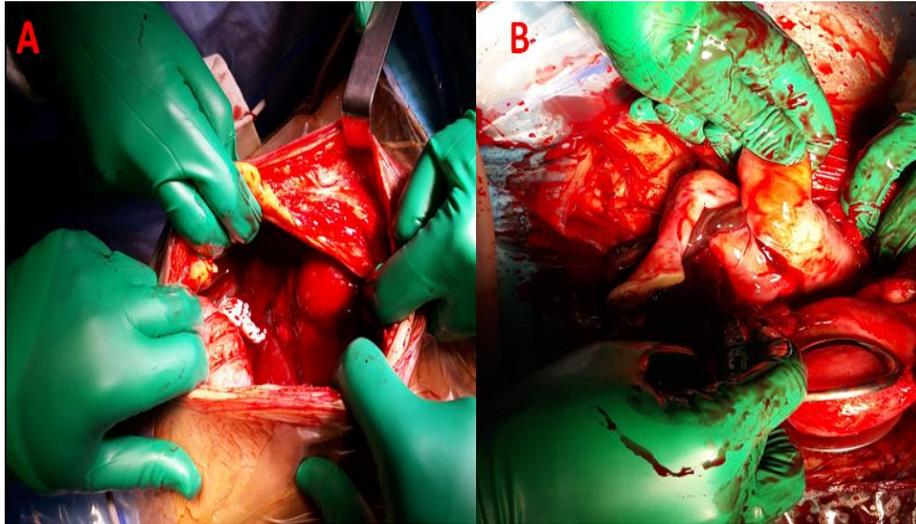


Fig-1: (A) Laparotomy with massive hemoperitoneum. (B) Representing extraction of a dead fetus at 27 weeks of gestation

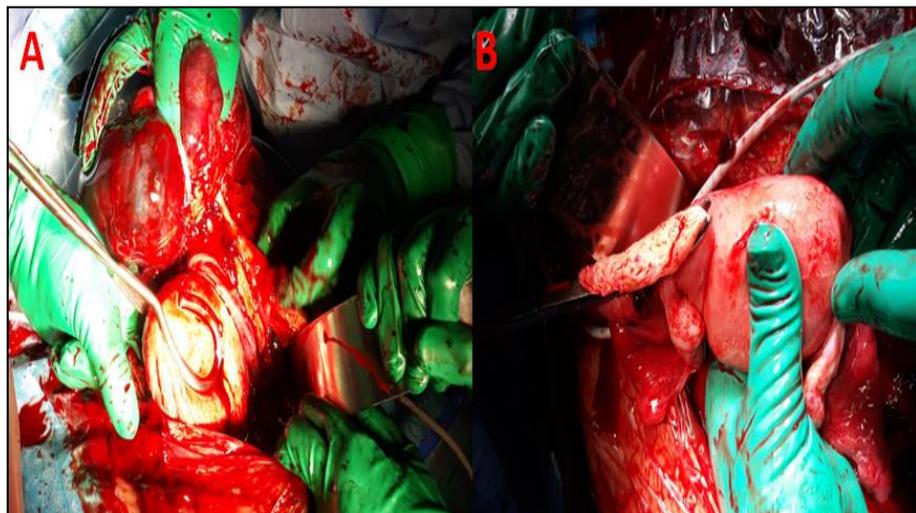


Fig-2: (A) The adherence of the placenta to the left fallopian tube. (B) Representing the removal of placenta by salpingectomy

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 embryo was first inserted into the isthmus portion of fallopian tube.

The diagnosis of abdominal pregnancy is difficult, and is an intra-operative finding in 40 to 50% of cases [5], despite antenatal follow-up and ultrasound scan. 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]. Unfortunately most of these signs only appear during already advanced abdominal pregnancies, as with our patient. 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 or oligohydramnios, 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 the diagnosis was demonstrated by ultrasonography with massive intraperitoneal bleeding.

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 lifethreatening complication during laparotomy. It is generally recommended to leave the placenta in situ and monitor the patient's human chorionic gonadotropin levels [2, 9]. The use of methotrexate to accelerate the resorption is controversial for it would involve a greater risk of infection due to an accelerated placental necrosis [5, 6]. 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, [10, 11] etc. These complications can worsen the maternal prognosis, with lethality up to 18% [5, 7]. In this case, the placenta was strongly adhered into the left fallopian tube was removed by salpingectomy. 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 [5, 6, 10, 11]. In this case, it was a dead fetus at 27 weeks of pregnancy with no congenital malformations.

CONCLUSION

Abdominal pregnancy is a situation of high risk of morbidity and mortality for the fetus and the mother. A high index of suspicion and recognition of signs and symptoms are therefore detrimental to diagnosis and guide to a prompt surgical emergency. Clinicians need to be aware of how to improve the rate of early diagnosis and reduce the risks and complications in patients.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images.

Competing interests

The authors declare that they have no competing interests.

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