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Abdominal Advanced Pregnancy: A Case Report

Tandian Aminata[1,2], Mbodji Aissatou[2,3], Gueye Mamour[2,3*], Ndour Simon Birane[2,3], Ndiaye Mame Diarra[2,3], Wade Mouhamadou[2,3], Diedhiou Philoméne Aissatou[2,3], Sylla Mohamadou Nassir[2,3], Sene Diomaye[2], Mbaye Magatte[3,4]

[1]Kaffrine Hospital, Kaffrine, Senegal
[2]Cheikh Anta Diop University, Dakar, Senegal
[3]Philippe Maguilen Senghor Health Center, Dakar, Senegal
[4]Gaston Berger University, Saint-Louis, Senegal
Email: *mamourmb@yahoo.fr

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Abstract

Abdominal advanced pregnancy is a rare form of ectopic pregnancy. The diagnosis can be difficult, especially in advanced forms. The management is mainly surgical. The materno-fetal mortality is very high with a high risk of bleeding. We report a case of a 22 years old primiparous who presented an abdominal pregnancy with intraoperative discovery. Through this case managed in our structure, we will present the diagnostic and management difficulties.

Keywords

Abdominal Pregnancy, Ectopic, Senegal

1. Introduction

Abdominal pregnancy (AP) is a rare form of ectopic pregnancy accounting for up to 1.4% of all ectopic pregnancies [1] [2] [3]. The frequency is variable depending on the localization, with around 1 in 10,000 to 1 in 30,000 pregnancies reported in developed countries. In Africa, a rate of 1 in 2761 was recorded in Nigeria, 1 in 750 from Tanzania, East Africa, and 1 in 1947 from South Africa [4].

AP is defined as the development of the fetus after the fifth month in the peritoneal cavity [3] [5]. APs are either primary or secondary with secondary one being the more common type depending on the site of fertilization [1] [3] [4] [5] [6] [7]. Risk factors of AP may include uterine surgeries, dilatation and curettage, history of tubal pregnancy, and artificial insemination [3]. Symptoms are not specific [3]. A rigorous history and clinical examination can sometimes reveal abdominal-pelvic pain at the time of fetal movement, and a fetus that is very

superficial on abdominal palpation, and often in an atypical position [3]. Ultrasound confirms the diagnosis by showing the foetus outside the uterine cavity [3] [5]. Management is surgical, and can be difficult depending on the site of placental insertion which can be anywhere in the abdominal cavity and sometimes in large vessels or organs such as the liver [8]. Advanced abdominal pregnancy is associated with high maternal and fetal mortality and morbidity. Maternal mortality of about 12%, and perinatal death of 70% have been reported [4].

Through this case reported in our facility, we will describe the diagnostic difficulties, and the management of an advanced AP.

2. Case Report

This was a 22-year-old primiparous patient admitted to the obstetric emergency room for suspected transverse presentation on an assumed full-term pregnancy. She had no particular surgical history.

The history of the pregnancy notes that the patient, who did not know the exact date of her last menstrual period, had 4 antenatal care visits during which severe anemia (6.6 g/dl) was diagnosed. She also tested positive for HIV. Her clinical signs were recurrent abdominal and pelvic pain, and left subcostal discomfort since the 7th month of pregnancy. An early ultrasound scan showed an evolutive mono-embryonic intrauterine pregnancy at 8 weeks.

At admission, she had abdominal and pelvic pain with signs of an occlusive syndrome. The abdomen was asymmetrically sensitive with generalized fetal head defensiveness palpated in the left hypochondrium; fetal heart sounds difficult to appreciate. On vaginal examination, the uterine cervix was posterior, half-opened.

Emergency ultrasound scan was not conclusive. An emergency laparotomy was then performed. This led to the fortuitous discovery of an evolutive abdominal pregnancy with fetal adnexes caught in an adherent magma with the

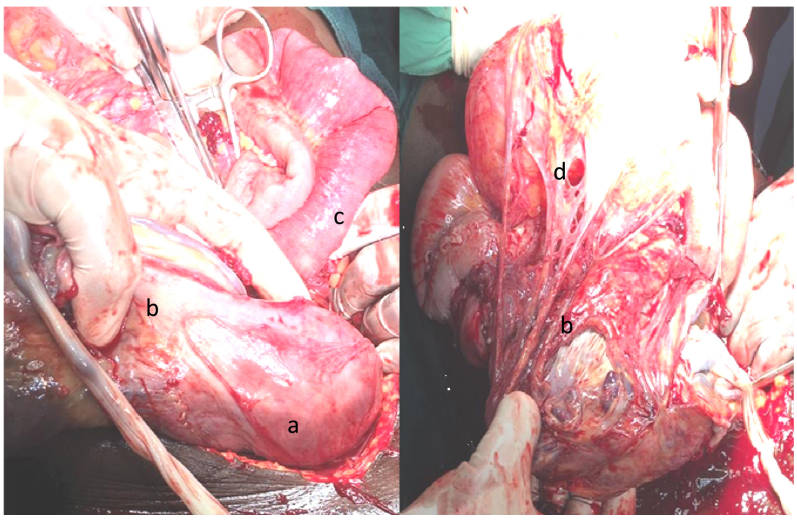

Figure 1. View of the abdominal pregnancy. (a) Anterior surface of the uterus; (b) placenta adherent to the right adnexa; (c) intestines; (d) placento-epiploic-intestinal adhesions.

intestines, the tube and the right ovary (**Figure 1**). A healthy live female infant weighing 2800 g, with an Apgar score of 8/10 was extracted. An adhesiolysis was performed, removing completely placenta, and the fetal membranes. An ipsilateral salpingo-oophorectomy was also performed.

The uterus was non gravid and had normal size. The abdominal viscera were free from adherence.

The patient received blood transfusion, and the postoperative follow-up was simple.

3. Discussion

Abdominal advanced pregnancy (AAP) is a rare form of ectopic pregnancy [1] [3] [9]. The frequency is variable depending on the localization with around 1 in 10,000 to 1 in 30,000 pregnancies reported in developed countries. The frequency seems to be higher in Africa, which can be explained by the fact that diagnostic means are less developed, and do not always allow for early diagnosis [1] [3] [5] [8] [10]. Regular antenatal follow-up with early obstetric ultrasound with a qualified provider should significantly reduce the prevalence of this condition. Two pathophysiological mechanisms are identified; primary abdominal pregnancy is due to implantation of the embryo in the peritoneal cavity through delayed ovarian capture, and secondary abdominal pregnancy, the most frequent, results either from a tubal abortion, or from a rupture of a tubal pregnancy, or from the migration of the embryo after uterine perforation [1] [3] [4] [5]. Risk factors of AP may include uterine surgeries, dilatation and curettage, history of tubal pregnancy, pelvic inflammatory disease, sexually transmitted disease and artificial insemination [3]. For our patient, there is no risk factor clearly identified except the positive retroviral serology which may suggest the presence of other sexually transmitted infections. The non-specific clinical symptomatology makes the diagnosis of this pathology even more difficult. Indeed, as in our patient, most of the symptoms are limited to abdomino-pelvic pain and a greater frequency of abnormalities of the foetal position [1]. Ultrasound remains the reference examination for diagnosis, but this examination is limited by various factors, such as incomplete penetration in advanced pregnancy owing to oligohydramnios, ossification of fetal bones, fetal lie and position, maternal obesity, and bowel gas [1]. Diagnostic criteria of abdominal pregnancy by an ultrasound may include: demonstration of a fetus in a gestational sac outside the uterus, or the depiction of an abdominal or pelvic mass identifiable as the uterus separate from the fetus; failure to see a uterine wall between the fetus and urinary bladder; recognition of a close approximation of the fetus to the maternal abdominal wall; localization of the placenta outside the confines of the uterine cavity [3]. For our patient, the diagnosis was made during surgery, and it was the same in the literature with several authors reporting a low preoperative diagnosis in late pregnancy of between 10% and 45% [1] [3]. In some cases where the diagnosis is suspected, an MRI may be contributory which figures the exact anatomical rela-

tionships of the fetus, the placenta, and maternal intraabdominal organs then contributing to surgical care [1].

AAP is usually associated with very high maternal, fetal and perinatal mortality and morbidity. The maternal mortality rate ranges between 0.5% and 20% [3]. Maternal morbidity, and mortality is usually associated with severe hemorrhage, bowel obstruction, perforation, or disseminated intravascular coagulations. In our case, severeanaemia was diagnosed in the prenatal follow-up which could not exclude an unnoticed haemorrhage, and the patient was admitted with an intestinal obstruction. In addition to the poor maternal prognosis, there is also poor neonatal prognosis with a higher frequency of between 40% and 95% of in-utero fetal death and early neonatal death [7] [9].

The management is essentially surgical, with the prognosis depending on the placental location and the possibility, or not of a complete placental removal. In cases where the placenta is completely removed, the postoperative course is usually simple with a reduced risk of haemorrhage [7]. This was the case for our patient where the placenta was located in the adnexa, allowing a complete resection with adnexectomy. But in cases where the placenta is in noble organs such as the liver, or large vascular structures making a complete resection impossible, a complementary treatment based on methotrexate is generally introduced allowing placental lysis. However, there is currently no consensus about whether, or not the placenta should be removed during laparotomy [11]. Indeed, for some authors, removal of the placenta often leads to torrential arterial hemorrhage, whereas leaving the placenta in situ can lead to infection at the implantation site, and abscess formation [11].

4. Conclusion

Abdominal pregnancy remains a serious problem worldwide, especially in developing countries where there are limitations in diagnostic resources. Better training of the professionals would allow reducing this condition by making an early diagnosis allowing to improve the maternal prognosis.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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