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Term Abdominal Pregnancy with Healthy Newborn: A Case Report and Review of the Literature

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Abstract **Case Report**

Introduction: Abdominal pregnancy is a rare entity of ectopic pregnancies (<1%), which corresponds to the implantation and development of the fertilized egg in the abdominal cavity. ***Case discussion*:** Mrs. Z.F, 28 years old, II Gravidity II parity, referred to IBN Tofail Hospital for the fortuitous discovery of an abdominal pregnancy carried to term. The admission examination was unremarkable; the ultrasound had revealed a single ectopic fetus with normal cardiac activity and absence of amniotic fluid. On MRI, the fetal body was visualized in the right abdomen, placenta attached to the fundus serosa. The xypho-pubic laparotomy performed under general anesthesia, allowing the podalic extraction of a newborn male, with an Apgar score of 10/10. The newborn presented external malformations without notable vital distress; the maternal and fetal consequences were simple with a discharge on Day 7 postoperative. ***Conclusion:*** Abdominal pregnancy is a rare pathology still encountered in countries where medicalization is insufficient. The fetal prognosis remains reserved, justifying the interest of the early diagnosis and management.

Keywords: Abdominal Pregnancy, Integrity uterine, fetal prognosis.

INTRODUCTION

Abdominal pregnancy is a rare entity of ectopic pregnancies [<1%], in which the implantation and development of the fertilized egg is in the abdominal cavity [1]. It is a peritoneal (ectopic) implantation of the fertilized egg differentiating from an ovarian or even intraligamentary implantation. Primary abdominal implantation is rarer than secondary implantation [2, 3].

Early Abdominal Pregnancy is distinguished from advanced one diagnosed after 20 weeks of amenorrhea [2]. Countries with low socio-economic and medical care level andhigh perinatal and maternal morbimortality experience higher rates of this advanced form [3].

Through this observation which underlines the atypical location of this pregnancy carried surprisingly to term, we will discuss the importance of clinical examination and especially the ultrasound in early diagnosis of abdominal pregnancies and to assess the criteria authorizing conservative treatment.

CASE REPORT

Mrs. ZF, 28 years old, II Gravidity II parity, 1 living child, history of eventless vaginal birth, referred from Guelmim's hospital to IBN Tofail university Hospital for the accidental discovery of an abdominal pregnancy carried to term during routine ultrasound assessment.

Past medical history was unremarkable, clinical examination upon admission showed a patient in good general state, her weight was at 70kg, with stable hemodynamic and cardiorespiratory status, blood pressure was at 120/70mmgh, pulse at 75bpm and no abdominal tenderness or contracture was found.On obstetric examination, the curves of the uterus were difficult to identify and the fetus parts were abnormally palpable under the skin, the head of the fetus projected below the right costal margins. The exam found as wellgravid, firm, globular and non-palpable uterus.

Fetal heart sounds were present and steady at 140 beats per minute. On vaginal examination, we noticed a shortened and firm cervix. Ultrasound revealed a slightly increased size but empty uterus, a single ectopic fetus with normal cardiac activity; the cephalic pole was in the sub-hepatic region with absence of amniotic fluid. The placenta located outside the uterus and probably adherent to the bladder.No morphological abnormality was identified during this ultrasound examination, the biometric measurements

were in favor of an evolving pregnancy of 39 weeks and the fetal weight estimated at 3400g.

For more details, and as the mother and fetus were in good shape, abdominal and pelvic (MRI) magnetic resonance imaging was requested, the uterus was practically normal in size and appearance, the fetal body was visualized in the right abdomen, with a crown rump length at 14 cm, placenta attached to the serosa of the uterine fundus, and absence of amniotic fluid (figure 1).

The MRI also showed the integrity and continuity of the uterine wall, absence of an adnexal lesion or fistula allowing communication between the peritoneum and the abdominal cavity.

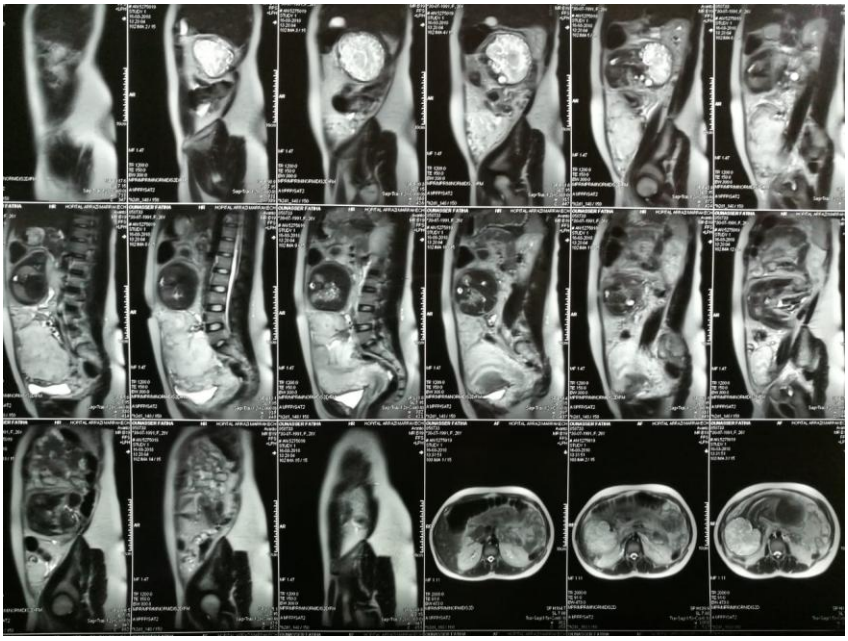

Fig-1: MRI showing the abdominal location of the fetal body with intact uterus and adnexals, placenta adhering to the bladder and attached to the serosa of the uterine fundus

A xipho-pubic laparotomy was performed under general anesthesia, discovering a floating fetus in the peritoneal cavity contained in its amniochorial membranes, the dissection of which allowed the extraction by the foot of a newborn male weighing 3000g, with an APGAR score of 10/10.After exploring its tight and close adhesions to the pelvic vasculature, the placental was left in situ (figure2).

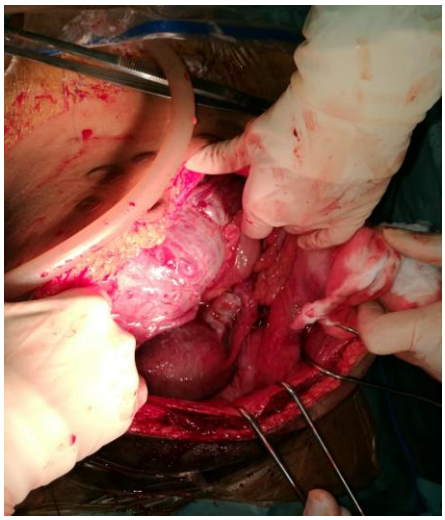

Fig-2: A xipho-pubic laparotomy discovering a floating fetus in the peritoneal cavity.

The newborn had external malformations such as torticollis, tendon retraction of limbs and equinovarus feet without notable vital distress. Mother and baby follow up were eventless, they were discharged on the 7th day postoperatively.

DISCUSSION

Advanced abdominal pregnancies are a rare entity that presents several diagnostic and therapeutic questions. Diagnosis can be challenging and is often missed on initial or repeat ultrasound examinations [1-4], and may become more challenging to diagnose as the pregnancy progresses[2]. Though an extremely rare condition, present in only about 1% of ectopic pregnancies[1], a high suspicion may aid in diagnosis by a thorough ultrasound exam, increased maternal serum alpha fetoprotein, an oxytocin stimulation test, or an MRI if indicated for preoperative planning [5, 6]. It is important that an ultrasound technician or physician be aware of this entity and systematically identifies the amniotic sac and walls of the uterus around the fetus for each patient, especially for those with risk factors for ectopic pregnancies. Abdominal pain is the most consistent presenting symptom of abdominal pregnancy and thus should trigger an alert for the possible diagnosis[7].

Abdominal ectopic pregnancies can be either primary, based entirely in the abdominal cavity from conception, or more commonly, secondary, having migrated from a ruptured uterus or fallopian tube[8]. The current case fulfills Studdiford's criteria for a primary abdominal pregnancy, which includes visualization of normal ovaries and fallopian tubes bilaterally, a lack of a utero-peritoneal fistula, and a placenta involved exclusively with the peritoneal surface making it a rare case to be diagnosed late in the third trimester.

Abdominal pregnancy also presents a challenging treatment question as there continues to be debate about what should be done with the placenta. Placenta fragments may be left in place in the abdominal cavity and treated with methotrexate, but this leaves the patient with the risk of necrotic tissue in the cavity and possible late post-operative infection[9]. Placenta may also be removed during laparotomy, but this approach comes with a high risk of severe hemorrhage and may ultimately necessitate the removal of the organ to which the placenta was attached, which can include the uterus, ovaries, fallopian tubes, bowel, or bladder[1, 9]. Ultimately, the decision must be made on a case-by-case basis based upon clinical judgement as evidence continues to be lacking in this rare situation.

Additional treatment challenges are encountered when patients present in a late stage of pregnancy. Fetal mortality for abdominal pregnancies have been reported from 40-90%[10] and 30-90% of viable fetuses are born with congenital malformations, such as the left foot in the current case[4, 11]. With maternal mortality at 0.5-18% [12], it is difficult to determine whether an abdominal pregnancy should be allowed to continue to term, or if immediate surgical intervention is the best course for the mother and fetus.

CONCLUSION

Abdominal pregnancy is a rare condition still seen in countries where medical care is unsatisfactory, its diagnosis as difficult; must be early using the ultrasound which is a systematic requirement during pregnancy. The fetal prognosis remains doubtful in the majority of cases, but that of the mother can be improved by early management.

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