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Abdominal pregnancy: A case report from N'djamena Mother and Child University Hospital

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Abstract
Abdominal pregnancy is a rare occurrence. It is more common in countries with low socioeconomic levels and limited medical resources. It is defined as the implantation and development of the fertilized egg partially or wholly within the peritoneal cavity. The physical and para-clinical examinations concluded to abdominal pregnancy with echography term of 33 gestational weeks+ 4 days, and fetal weight of 2137 g with adnexa inserted in the fundus of uterus in the right side and malformation in the feet. Corticoid has been given.

We reported a case of abdominal pregnancy diagnosed in women of 20 years primipara complaining of abdominal pain. Examination diagnosed an abdominal pregnancy with 33 gestational week 4 days. Laparotomy was performed at 35 gestational, per operative findings were: an intraperitoneal fetus with adnexa adherent to the right uterine adnexa. The procedure consisted of extracting a live fetus with poly malformation and weight of 2610 g. placenta was inserted in the fundus and the right adnexa and important bleeding. In front of this case, we decided and performed the removal of placenta and the right adnexa. a right adnexectomy. The patient was discharge at the 5th days post operative. The monitoring of beta HCG was performed until a years after negative beta HCG.

Keywords: Abdominal pregnancy, ectopic pregnancy, peritoneal implantation

Introduction
Abdominal pregnancy or peritoneal pregnancy is defined as the implantation and development of all or part of the fertilized egg in the abdominal cavity, either primarily or more often secondarily [1]. A distinction is made between early abdominal pregnancy and advanced abdominal pregnancy diagnosed after 20 weeks' amenorrhea [2]. This is a rare type of extra uterine pregnancy (EUP), accounting for only 1% of ectopic pregnancies [3].

Its incidence is estimated at 1 per 10, 000 live births [2, 4]. Exceptional in developed countries. Abdominal pregnancy is more common in developing countries with low medical density [3]. Corréa has defined it as a reflection of underdevelopment [5-6]. Clinical examination and ultrasonography play a vital role in the diagnosis of abdominal pregnancy [7].

Forms that progress to term are exceptional, with high perinatal mortality and potentially very serious maternal complications of occlusion, infection and, above all, hemorrhage [1, 8].

Treatment is always surgical and the fetal prognosis is often guarded and poor.

We report a case of GA discovered incidentally in the third trimester during ultrasound examination in the emergency department of N'Djamena Mother and Child University Hospital.

Observation
Mrs H.A, 20 years old, housewife, unschooled, consulted to emergency department of Gynecology and obstetrics of (UGO) of N'Djamena Mother and Child University Hospital. For abdominal pain, the increase of abdominal height, and amenorrhea. The onset is 8-months according to the patient. In her antecedent there is no history of surgery. She was primigravida. The last menstruation period was ignored.

The physical and para-clinical examinations concluded to abdominal pregnancy with echography term of 33 gestational weeks+ 4 days, and fetal weight of 2137 g with adnexa inserted in the fundus of uterus in the right side and malformation in the feet. Corticoid has been given.

Laparotomy was performed at 35 gestational, per operative findings were: an intraperitoneal fetus with adnexa adherent to the right uterine adnexa. The procedure consisted of extracting a live fetus with poly malformation and weight of 2610 g. placenta was inserted in the fundus and the right adnexa and important bleeding. In front of this case, we decided and performed the removal of placenta and the right adnexa. a right adnexectomy. The hemostasis was perfect. The uterus was intact and the contralateral adnexa was macroscopically healthy. The outcome of newborn was enameled by the death in the third day post operative in pediatric service probably reported cause was heart disease. The patient as discharge at the 5th days post operative. The monitoring of beta HCG was performed until a years after negative beta HCG

Fig 1: The placenta adhering to the right uterine adnexa

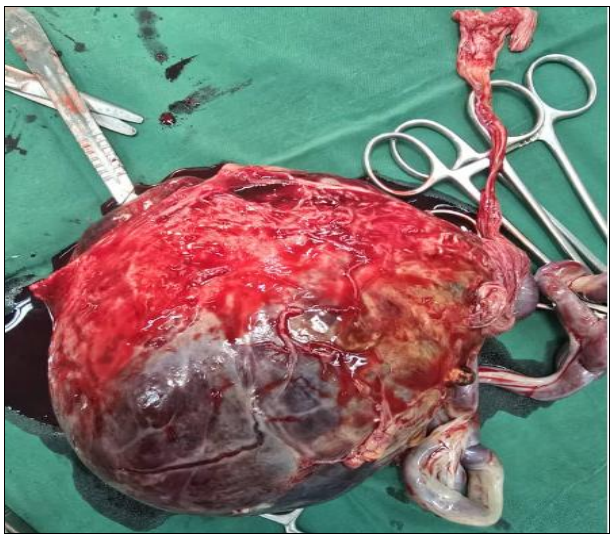

Fig 2: Placenta completely removed with the right uterine adnexa

Fig 3: newborn with poly malformation

Discussion

Frequency

The abdominal pregnancy is a rare site of ectopic pregnancy. The table 1 showed frequency according to some author.

Table 1: frequency of abdominal pregnancy according to some authors

PAYS	FREQUENCE / Accouchements
Europe(17)	1/10000
Maroc (9)	1/11.250
Tunisie(21)	1/7 222- 11.413
Turquie (3)	1/4017
Côte d'ivoire(16)	1/2782
Sénégal (2)	1/2583
Gabon (8)	1/3750

Tableau 1 : Fréquence des grossesses abdominales selon les pays

It is rare in industrialized countries, but more common in developing countries [9]. The wide variability in incidence depends essentially on the country's socio-economic level and low medical density [3; 10-14].

The predisposing factors for abdominal pregnancy are the same as for EP: genital malformations, sequelae of genital tract infections, caesarean section scars, myomectomy, post-curettage, and low socio-economic status linked to inadequate pregnancy follow-up [2; 15]. The literature shows that the age of patients varied from 21 to 44 years and parity from None to three children. This case confirmed this assertion the young of the patient and her obstetrical antecedent (primipara)

According to the occurrence, 2 classifications existed, that led to the primary and secondary abdominal pregnancy [3]. In the primitive form, the least frequent, the ovum may remain in the free peritoneum until the 6th day after ovulation, due to delayed oocyte uptake, and may be fertilized [16]. The primitive form, the authenticity of which remains debated, and described in 1942 [1-3, 17, 18]:

- both fallopian tubes and ovaries must be free of any lesion;
- there must be no utero-peritoneal fistula;
- the relations of the ovarian sac are exclusively on the peritoneal surface;
- the pregnancy must be sufficiently early.

The secondary form is the most frequent. It may result from a ruptured tubal pregnancy or a tubo-abdominal abortion. It may also be the consequence of an intra-uterine pregnancy (IUP), secondarily abdominal on the occasion of rupture of a hysterotomy scar, breach of uterine perforation or rupture of a rudimentary horn.

This classification remains rather theoretical, given the difficulty of determining intraoperatively the integrity of the tube or uterus, especially if the pregnancy has progressed close to term. It has little clinical or therapeutic impact [1, 18].

The criteria for diagnosing abdominal pregnancy in the first trimester are no different from those for an EP, based on the three classic criteria for ectopy: clinical, biological and ultrasound. Laparoscopy removes any diagnostic doubt [18]. Beyond the 1st trimester, the clinical picture is dominated by abdomino-pelvic pain, often permanent, which may be accompanied by massive hemoperitoneum, metrorrhagia [3;19], occlusive syndrome, digestive disorders such as nausea, vomiting, sometimes constipation, toxic syndrome [20], altered general condition, overdue delivery and irreducible dystocia, frequently encountered in Africa [21].

The physical examination is characteristic when it shows an irregular presentation; palpation confirms the abnormal position of the fetus, which is superficial under the skin, in a high

transverse position.

The diagnostic course of our case is consistent with the literature. This was a woman living in Africa, in a developing country, whose pregnancy was not being monitored, and who consulted a doctor late in the day because of abdominal pain. However, the physical signs described in the literature were not found in our case. It is therefore advisable to mention this condition, although it is rare, whenever a pregnant woman consults for abdominal pain with transit problems [20], and therefore to think 'ectopic' whatever the term [4].

The clinical latency and non-specific symptoms cast doubt on the diagnosis with other conditions associated with pregnancy [1, 18]. The way to diagnose abdominal pregnancy is to perform echography that shows:

- the fetus in a gestational sac outside the uterus
- the absence of the uterine wall between the fetus and the bladder
- Localization of the placenta outside the uterine cavity and its relationship with the abdominal organs:

In addition to ultrasound data (fetal and uterine study), magnetic resonance imaging (MRI) enables the precise location of the placental insertion site to be determined [3]. This determines the maternal risks and foetal survival. It can also be used to monitor placental development [18].

In our case, the diagnosis of abdominal pregnancy was made by ultrasound the ultrasound criteria described by certain authors Alibone *et al* [21] and Riethmuller *et al* [22] were found. However, MRI could not be performed due to lack of financial resources.

Treatment is always surgical [2]. It varies according to the term and requires a multidisciplinary team. In the case of early abdominal pregnancy, medical termination of pregnancy (IMG) is often proposed, and derogation from this approach should remain exceptional [1, 2, 16].

After 20 weeks' gestation, close monitoring is required, to ensure that the patient understands the procedure, and hospitalization in a suitable facility is necessary until delivery. Some authors have proposed criteria that may lead to discussion of a conservative attitude [23].

The usual approach is laparotomy. A few rare cases of laparoscopic approach for pregnancies of less than 12 weeks with an accessible trophoblastic site [2, 17, 24] have been reported.

In the case of a dead fetus, a regulated operation is indicated. Some authors [25; 9] suggest waiting a few weeks to allow placental involution, which reduces the risk of intraoperative hemorrhage.

The dilemma lies in the attitude to be adopted towards the placenta, which depends on the localization of its insertion. Abandoning the placenta 'in abdomino' requires more rigorous postoperative monitoring to look for rare but serious complications such as placental abscessation, secondary hemorrhage or intestinal obstruction [20]. Monitoring is performed using Doppler ultrasound, repeated placental hormone assays (BHCG) and/or MRI [1, 2, 26]. The use of methotrexate is also recommended by some authors to accelerate resorption, but is thought to be complicated by infection due to placental necrosis [4, 12, 26].

Certain interventional radiology techniques have been proposed in advanced abdominal pregnancy to embolize the afferent pedicles of the placenta when the latter has not been completely removed [17].

In our case, the diagnosis was made at 33 gestational weeks +4 days with a progressing fetus. Therefore, corticoid has been given to the patient and according to cultural factors and the law, we have performed the laparotomy in the 35 gestational weeks. The fetal prognosis is poor, with a mortality rate of 75-95% due to defective vascularisation of the placenta, hypotrophy and fetal malformations. Among fetuses born alive, 50% die within 24 hours of birth, often in respiratory failure [25].

Maternal prognosis depends on the delay in diagnosis and the attitude adopted towards the placenta. Maternal mortality ranges from 0 to 18%, mainly due to hemorrhagic complications [9; 12].

In our case, laparotomy resulted in the birth of a live, of fetus with poly malformation that died within the third day of extra-abdominal life.

In the mother side, the prognose is better and patient was discharge at the 5th days post operative. Maternal prognose is often linked with blood loss. In case of minimal blood loss the hospitalization stay is short

Conclusion

Abdominal pregnancy is a rare form of ectopic pregnancy which may progress into the third trimester. It is still common in developing countries where medical care is inadequate. Clinical polymorphism makes diagnosis difficult. Ultrasound remain the key to diagnosis. Early monitoring of the pregnancy could facilitate diagnosis and improve the maternal prognosis, as the fetal prognosis is guarded in all cases.

Conflict of Interest

Not available

Financial Support

Not available

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