Diagnostic Difficulties and Prognosis Posed by Two Cases of Abdominal Pregnancy in Developing Countries: Experience of Chu SO of Lome and Review of the Literature

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ABSTRACT

The abdominal location of a pregnancy is rare, but its early diagnosis improves the maternal prognosis. The authors report two cases of abdominal pregnancy that presented complications (infectious and hemorrhagic with severe anemia) due to delayed diagnosis. Through these two observations the authors will highlight, the diagnostic difficulties and prognosis that can pose such pathology in developing countries.

Keywords: Abdominal pregnancy; radiography of the uterine contents; Lome

1. INTRODUCTION

Being one of the varieties of extra-uterine pregnancy, abdominal pregnancy is defined as the development of the egg in the abdominal cavity. The evolutionary forms beyond the 5th month are exceptional in the developed countries, but frequent in those with low medical density where the abdominal pregnancy is characterized by a late diagnosis [1,2,3]. Clinical examination and ultrasound play a central role in diagnosis. The treatment is always surgical, and the fetal prognosis is often very reserved. As for the maternal prognosis, it depends most often on the precocity of the intervention and the intervention itself. We report two cases of abdominal pregnancy discovered at Sylvanus Olympio CHU in Togo. Our goal is to highlight the diagnostic difficulties of abdominal pregnancy in under-equipped environments and to evaluate the resulting maternal-fetal prognosis.
2. CASE REPORT

**Case One**

Mrs. AA black race, 25 years old, 2nd gesture Primiparous, 1 stillborn (delivered by cesarean section for acute fetal distress in 2014), who had her last menstrual period on 12/09/2016, she did six prenatal consultations in an unaffected birthing house from the 13th week of amenorrhea. An ultrasound performed on April 07, 2017 revealed an active intrauterine mono fetal pregnancy of 31 AS with a fetus in cephalic presentation whose fetal weight was estimated at 1630 g. Faced with the occurrence of pelvic pain at 33 SA 04 days, she was referred to Sylvanus Olympio CHU for better care.

At the entrance, the examination recorded the temperature at 36°, blood pressure at 80/40 mmHg, pulse at 109 ppm; anemic syndrome, uterine height at 33 cm, inaudible fetal heart sounds in the nose, posterior neck, long, closed, high presentation, meconial and fetid amniotic fluid. Hemoglobin level at 4.6 g / dl and white count at 30100 / mm3. During hospitalization, a rebellious fever developed. An ultrasound made noted a pregnancy stopped at 31st 5 days with overlapping bones of the skull and myosal uterus. It has therefore been concluded that pregnancy is stopped and chorioamnionitis occurs in a scar uterus. An artificial triggering of the wand and worm probe delivery work was unsuccessful. A new echography done was not conclusive which motivated the realization of the radiography of the uterine contents. The latter made it possible to note the fetal skeleton located in the left hypochondrium evoking a fetus outside the uterus. The hypothesis of abdominal pregnancy or uterine rupture was raised with indication of laparotomy. Under general anesthesia, midline incision above and below umbilical.

At the opening, flow of a fetid purulent liquid, sample taken for cytobacteriological study. In the fluid, there was a fetus in early putrefaction that we extracted en bloc with placenta that had already taken off before the intervention. The fetus weighed 1100 g and the placenta 300 g. The placenta was inserted on the epiploon and the anterior surface of the uterus resulting in adhesions that circumscribed the fetus and its appendages in a necavity. Abundant washing of the neo-cavity with physiological saline. Careful adhesiolysis cleared the uterus. Hemostasis correct. The left appendix and the right ovary were macroscopically healthy, but the right horn was taken in adhesions. Abundant washing of the abdominal cavity with the installation of a drain and closure of the abdominal wall.

Operative follow-up: Apyrexia from J3 postoperative. Parental suppuration treated. The discharge from the hospital occurred on the 12th day after the intervention by Noristera.

![Figure 1: picture of the first abdominal pregnancy](image)

**Case Two**

Mrs EM black race, 31 years old (three gravidity and one parity) with a pregnancy of 18 weeks amenorrhea was admitted on 23 July 2017 to the gynecological and obstetrical clinic of Sylvanus Olympio University Hospital for a sudden abdominal pain associated to vertigo without the notion of metrorrhagia. She had performed 2 prenatal consultations at the CHU SO during which an obstetric ultrasound performed in a clinic of the place has led to an infertile maternal embryonic intra uterine pregnancy of 12-week amenorrhea.

Examination at the entrance made it possible to note: a temperature of 36.5°C; a blood pressure of 90 / 50mmhg; a pulse of 72 bpm. Good general condition, moderately colored conjunctiva. The abdomen was normal depressive soft morphology with no signs of peritoneal irritation. The vaginal cervix was median, short, firm and closed. Gloves reduced physiological leucorrhoea. The uterine fundus was difficult to assess. We thought of a threat of abortion and put the pregnant woman under antispasmodic and antibiotic prophylaxis. Six hours after admission, she presented abruptly a state of hemodynamic shock (TA: 6 / 3 cmh) with a severe anemic syndrome, a syndrome of peritoneal irritation and intraperitoneal fluid effusion syndrome. A transparietal puncture made brought 4cc dark red blood incoagulable. The hypotheses of rupture of a hemorrhagic cyst of the ovary and pregnancy or of a broken abdominal pregnancy were...
asked. After the resuscitation measures, an exploratory laparotomy was indicated. At the opening we discovered a hemoperitoneum made of dark red blood about 1.5 liter and 300g of blood clots that we sucked. At exploration we found a fresh dead fetus in the female abdominal cavity weighing 200g. The partially removed placenta was inserted on the uterine fundus extending to the right broad ligament. The right horn was not seen. We completed the detachment of the placenta. The area of insertion of the latter was the seat of a bleeding crater in a sheet not communicating with the uterine cavity. We proceed to a hysterography by inverted simple points and a suture of the right broad ligament. Hemostasis has been laborious but mastered. The right ovary and the left appendage were macroscopically healthy. She received a blood transfusion. The postoperative course was simple. The exhalation was done on day 14 under pill contraception.

Figure 2: Picture of the second abdominal pregnancy

3. DISCUSSION

Epidemiology
Exceptional in the white race, abdominal pregnancy occurs more frequently in the black race [4,5,6,7,8,9]. The incidence varies according to the country, 1 / 10,000-15,000 deliveries in Europe, 1/2000 deliveries in developing countries [7]. The wide variability in the incidence of the condition depends mainly on the socio-economic level of the country, the quality of the surveillance of pregnancy and childbirth [10,11,12] but also the strong prevalence of sexually transmitted diseases, which cause tubal lesions, frequently observed in Africa [13]. As was the case in our second observation, tubal surgery sequelae are a risk factor for abdominal pregnancy, as is the low socioeconomic environment [10,14,15,16] that may explain fact that the first case of our observation could not realize the echography of the first and second trimesters.

In the literature, abdominal pregnancy is reported mainly in pauciparous women [17], concordant with both cases of our observation.

Diagnostic
Clinically, several symptoms can guide the diagnosis [18]:

- Digestive disorders: nausea, vomiting;
- Concurrent abdominal and pelvic pain with fetal movements if the fetus is alive with or without metrorrhagia
- Anemia with deterioration of the general condition
- A very superficial fetus often in atypical high transverse position
- Sometimes an evolutionary complication such as internal or external hemorrhage, or a toxic-infectious syndrome
- With vaginal touch, the cervix is often fixed beneath the pubic symphysis, it is hard and long [19,20]
- According to some authors, the clinical diagnosis may be better guided by an oxytocin test: the absence of uterine contractions is considered pathognomonic of an abdominal pregnancy [19,21,22].

In both cases of our observation, the hypothesis of abdominal pregnancy was evoked at the stage of complications (internal bleeding, infectious syndrome with severe anemia).

Complementary examinations are of great help [23]. Ultrasound is the essential element of diagnosis and confirms clinical suspicion [24]. It allows to visualize [25]:

- the fetus in a gestational sac outside the uterus;
- absence of uterine wall between fetus and bladder;
- the location of the placenta outside the limits of the uterine cavity and its relationship to the abdominal organs (vital for the surgical approach).

Magnetic resonance incidence used by some authors [26] allows ultrasound data (fetal and uterine study) to accurately locate the placental insertion seat [27] but inaccessible in university hospital structures in the country as in that of study. Laparoscopy is also a key examination in diagnosis [28].

In both cases of our observation, the ultrasound did not allow the diagnosis to be made. In the first case, before the discrepancy between the clinic and the ultrasounds performed, the latter were supplemented by the radiography of the uterine contents which made it possible to evoke a fetus outside the uterus.

**Treatment and follow-up**

Surgery is the only therapeutic sanction used to manage an abdominal pregnancy. The operational urgency is theoretically nuanced according to fetal viability [25].

As far as we are concerned, fetal viability was already excluded by the clinic. Because of the risk of uncontrollable hemorrhage, any attempt to extirpate the placenta is strictly prohibited if the placenta is inserted into a noble organ or vessel [5], [3], [30]. In our series, the placenta was already fully detached without visible bleeding in the first case and partially bleeding with bleeding in the second case; the detachment was thus completed followed by the realization of the hemostasis.

**Maternal and fetal prognosis**

The fetal prognosis is reserved with high stillbirth, 75% to 95% [29]. She was 100% in our series. The causes of death are related to the defective vascularization of the placenta (early aging) or its premature detachment, hypotrophy and fetal malformations [30].

As for the maternal prognosis, it depends on the precocity of the diagnosis and the attitude taken towards the placenta. Maternal mortality varies between 0 and 18% depending on the series, mainly due to infectious complications and hemorrhage [13], [24], [26]. Despite the diagnosis at the stage of complications, the prognosis was favorable for our patients.

**4. CONCLUSION**

Abdominal pregnancy, although rare, remains an obstetric emergency that requires attention to diagnosis and management. The clinic, in front of certain signs, makes it possible to suspect it. Ultrasound in the diagnosis of this condition is almost inevitable but can sometimes miss the diagnosis requiring further examinations such as radiography of the uterine contents if there is no contraindication. In the future, magnetic resonance incidence may be the test of choice to explore both the fetus and the placenta. The fetal prognosis remains reserved in all cases, but that of the mother can be improved by the precocity of the care.

**REFERENCES**


