



Case report

Spontaneous uterine rupture during the first trimester of a partial molar pregnancy in a scar uterus: A rare case report

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ABSTRACT

Introduction: Spontaneous uterine rupture in the first trimester is a redoubtable obstetric emergency that carries a high risk for both mother and fetus.

Cases presentation: We present the case of a spontaneous uterine rupture in a patient with a scarred uterus at 9 weeks' gestation treated by laparotomy in emergency obstetrical department of Ibn Rochd University Hospital of Casablanca; whose histological examination of the removed material found a partial mole.

Clinical discussion: Spontaneous uterine rupture in the first trimester is rare and usually occurs in a scarred or malformed uterus. Clinicians should consider this diagnosis in the presence of an acute abdominal pain in early pregnancy with or without first trimester metrorrhagia.

Conclusion: Since the rate of uterine surgeries is increasing, it is necessary to highlight the risk of uterine rupture occurring early in order to improve their management. Molar pregnancy is a factor of fragility of the uterine wall and uterine rupture must be suspected in any molar pregnancy associated with a hemoperitoneum.

1. Introduction

Uterine rupture is one of the most dreadful obstetric situations. It carries a high risk of maternal and perinatal morbidity and mortality. It mainly occurs during the second and third trimester in women with a history of uterine scarring [1,2].

Spontaneous uterine rupture in early pregnancy is extremely rare. The incidence of 1st trimester uterine rupture on hydatidiform pregnancy remains unknown due to the small number of cases reported in the literature [3].

Since the rate of uterine surgeries is increasing, it is necessary to highlight the risk of uterine rupture occurring early in order to improve their management.

We hope, through a case of a spontaneous uterine rupture in a patient with a scarred uterus at 9 weeks' gestation in the gynecology obstetrics department of the Ibn Rochd hospital of Casablanca, to contribute to the study of this rare complication. This work has been reported with respect to the SCARE 2020 criteria [4].

2. Observation

Patient, 30 years old, with a history of surgery for uterine malformation at the age of 20 years, mother of three children delivered by cesarean section, admitted for acute pelvic pain evolving 4 h before her admission with delay of nine-week period without bleeding or other associated signs.

The clinical examination found a conscious patient with generalized mucocutaneous pallor, impregnable blood pressure, tachycardia at 130 beats per minute, the abdominal examination objectified a generalized abdominal defense, on gynecological examination, and the cervix was closed without detectable bleeding.

Pelvic ultrasound showed a large peritoneal effusion detaching the liver with the presence of an empty intrauterine gestational sac measuring 3 cm long axis without adnexal abnormalities (Figs. 1, 2).

At the biological assessment, the hemoglobin level was 6.2 g/L, a prothrombin level at 80%, normal renal function.

On surgical exploration, we found a very abundant hemoperitoneum aspirated, the uterus was increased in size, the site of a posterior rupture of 1 cm in the center of a hypervascularized area where a molar pregnancy was suspected (Fig. 3).

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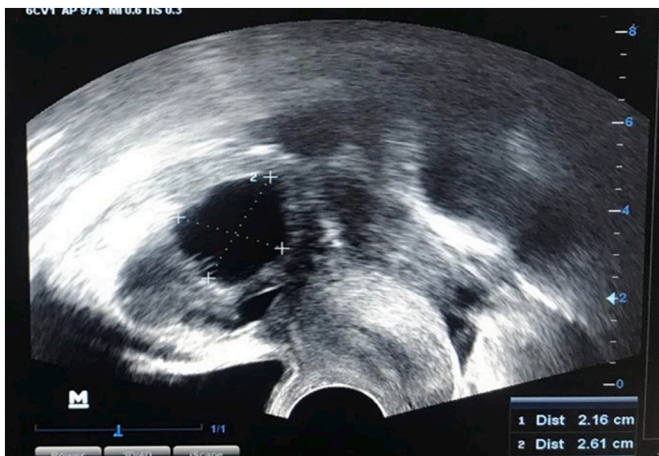


Fig. 1. Ultrasound image of intrauterine gestational sac.



Fig. 2. Ultrasound image of intrauterine gestational sac and peritoneal effusion.

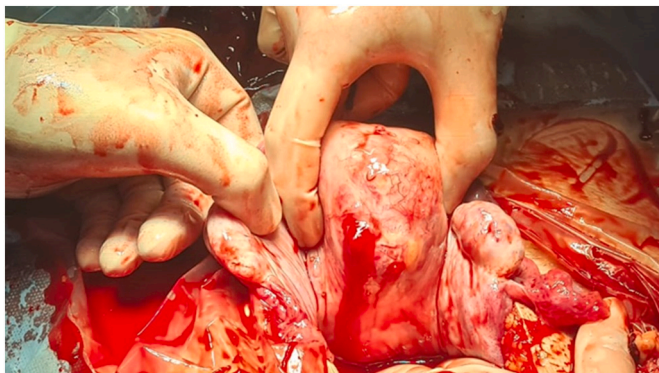


Fig. 3. Surgical image of uterine rupture.

The products of conception were removed, and uterine repair was performed with a size of 1 vicryl suture. Hemostasis was assured and the patient was intraoperatively transfused with 4 lobular pellets. The post-operative consequences were simple.

Histopathological examination of the material removed showed the presence of some distended vesicles, with myxoid and cysternal content,

coated by a hyperplastic trophoblast, the site of intrachorial cysts compatible with a partial mole (Figs. 4, 5, 6).

Plasma β -hCG was negative after ten weeks. The evolution was favorable with a follow-up of 5 months.

3. Discussion

Uterine rupture is a dramatic obstetric complication. The determining factor for the risk of uterine rupture is whether or not there is a previous scar on the uterus [5]. The first case of spontaneous uterine rupture in a scarred uterus was reported in Denmark in 1982 [6].

The incidence and age range of predilection of 1st trimester uterine rupture during molar pregnancies remains unknown due to low case reports in the literature. Previous lesions such as cesarean section, hysteroscopic surgery of the uterine septum, myomectomy, and cornual resection are considered predisposing factors for uterine rupture [7]. Rare cases of uterine rupture on hydatidiform mole have been described in the literature [8,9].

Most of the causes listed above show that uterine rupture occurs mainly before or during labor, after the second trimester [10]. However, spontaneous uterine rupture during the first trimester, like our case, is extremely rare [11].

In most women with a scarred uterus, uterine rupture occurs at the site of the anterior uterine scar due to myometrium fibrosis. IN very rare cases, like ours, the rupture occurs at the level of the posterior wall of the uterus.

This can be explained by the excessive stretching and thinning of the posterior uterine wall, unlike the rigid anterior uterine scar which prevents even stretching, and can cause atypical uterine rupture of healthy tissue [12].

Although the clinical manifestation of uterine ruptures is mainly an acute abdominal picture with abdominal pain and vomiting, it is difficult to diagnose a uterine rupture during the first trimester based on these non-specific signs found in other situations such as ectopic pregnancy [13,14]. Ultrasound can eliminate other etiologies of genital hemorrhage in the first trimester mainly ectopic pregnancy. The diagnosis of certainty is provided by surgical exploration.

The appropriate treatment is to suture the rupture. However, the use of a hysterectomy may be considered. The factors, which determine the therapeutic choice, are the extent of the rupture, the general condition of the patient and the desire to preserve fertility [15].

4. Conclusion

In conclusion, uterine rupture in early pregnancy is a rare and potentially serious event. The clinical signs are nonspecific and are confusing with ectopic pregnancy. Surgical exploration makes the

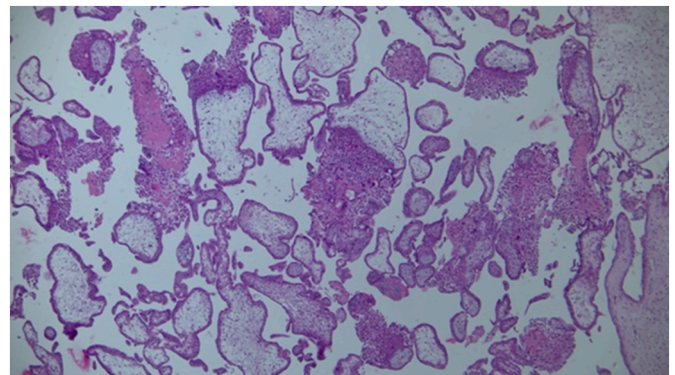


Fig. 4. Microscopic image of partial molar pregnancy at low magnification showing vesicles with myxoid and cysternal content with hyperplastic trophoblast.

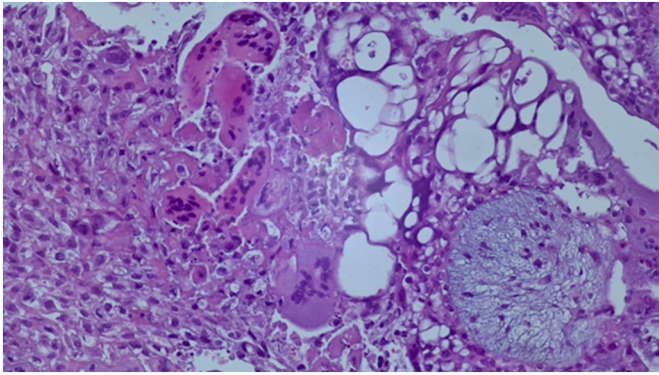


Fig. 5. Microscopic image of partial molar pregnancy at high magnification showing vesicles with myxoid and cisternal content with hyperplastic trophoblast.

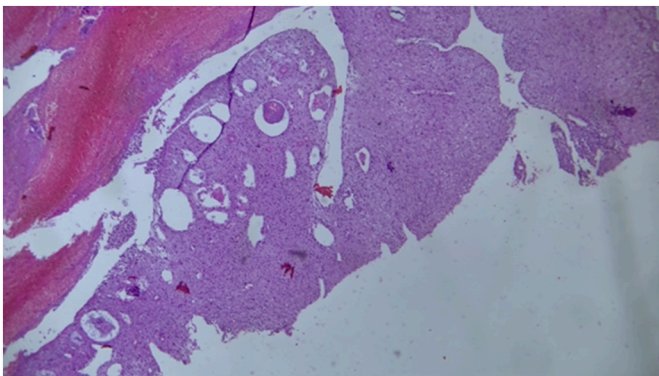


Fig. 6. Microscopic image of partial molar pregnancy at low magnification showing decidualized Caduque.

diagnosis with certainty. The therapeutic choice depends on the extent of the rupture and the general condition of the patient.

Consent

Written informed consent for publication of their clinical details and/or clinical images was obtained from the patient.

Ethical approval

I declare on my honor that the ethical approval has been exempted by my establishment.

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None.

CRedit authorship contribution statement

El Miski Fatiha: Corresponding author; writing the paper.

Declaration of competing interest

The authors declare having no conflicts of interest for this article.

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