

Case Report

Spontaneous uterine rupture in the first trimester with missed fetus

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Abstract

Spontaneous uterine rupture in early pregnancy is a very rare complication and it occurs usually in scarred uteri. Here we present a case of spontaneous uterine rupture at 13 weeks of gestation in a 32-year-old woman. Our preoperative diagnosis was also uterine rupture. Emergency laparotomy confirmed our initial diagnosis. Clinical signs of uterine rupture in early pregnancy are nonspecific and must be distinguished from those of acute abdominal emergencies, especially ectopic pregnancy. Although spontaneous uterine rupture is thought to be a life-threatening obstetrical emergency carrying a high risk for the mother and the fetus because of hemoperitoneum risk, herein we report a patient with a 13 week missed pregnancy after uterine rupture without serious bleeding.

Key words:

Missed fetus, scar, spontaneous uterine rupture

Introduction

Uterine rupture is a serious obstetric complication and usually occurs in the second and third trimester of pregnancy or during labor. Spontaneous uterine rupture during early pregnancy is a very rare and possibly life-threatening complication [1]. Predisposing factors for uterine rupture are uterine anomalies, trauma, previous iatrogenic uterine perforation, uterine invasion anomalies of the placenta, multiparity, and previous scars in the uterus such as due to myomectomy and hysterotomy, but the most common risk factor is previous cesarean section [2,3]. The incidence is 0.7 per 100 000 deliveries for an unscarred uter-

us and 5.1 per 100 000 deliveries for a scarred uterus [3]. Although uterine rupture is defined as a life-threatening complication due to hemoperitoneum risk, we here present a case of spontaneous uterine rupture at 13 weeks' gestation that was misdiagnosed and remained missed in the Douglas pouch for approximately a month without any complication.

Case presentation

A 32-year-old woman, gravidity 2, parity 1, was admitted to our obstetrics and gynecology clinic complaining of pelvic pain. According to her history, she had undergone curettage 3 weeks before when she was 13 weeks' pregnant because of incomplete abortion. Her menstrual history was relatively regular, and her past obstetric history consisted of one cesarean delivery at term. The patient had suffered active vaginal hemorrhage with acute abdominal pain 3 weeks before and after that she experienced a sudden relief in her pain. When she was admitted to hospital she underwent uterine curettage as ultrasound suggested retained products of conception. However, ac-

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According to her history, she was unaware of the fetus during the abortion and the doctor did not notice the fetus either during her ultrasound examination before curettage. At the time of presentation, she had had pelvic pain for 3 weeks. On physical examination, her vital signs were stable and moderate suprapubic and right lower quadrant tenderness was present.

Figure 1.



Ultrasonographic appearance of uterine rupture site

On transvaginal ultrasonography, a 3 cm blood clot was observed in the right lateral part of the uterus and the Douglas pouch. The fetus at 13 weeks' gestation was seen as a peripheral sign of hematoma (Figure 1,2). There was no blood-like fluid in the abdomen. In this context, elective surgery was planned. Laparotomy was performed and a fetus of approximately 13 weeks' size at the right and back side of the uterus was revealed (Figure 3). The macroscopic appearance of the fetus after removal is seen in Figure 4. Uterine rupture (approximately 3 cm) that began from the right side of the uterine scar and lines through the posterior were observed. The right uterine artery was intact. There was only an organized (or restricted) hematoma and active bleeding was not determined in the pelvis or abdomen. The uterine rupture was repaired with one layer suture and the abdominal wall was closed. Postoperative follow up was uneventful and the patient was discharged 2 days after the operation.

Discussion

The reported incidence of uterine rupture ranges from 1/8000 to 1/15000 pregnancies [4]. According to our review of the literature on uterine rupture, most cases had

various risk factors. It is obvious that the most important risk factor is a previous uterine scar, like in our case.

Figure 2.



Missed fetus in the right side of the uterus

Pregnant uterine rupture in the scarred uterus often occurs at the intrapartum and with careful and close monitoring early diagnosis may be possible. However, when it occurs in the first trimester it is difficult to diagnose as occurred in the present case before referral to our hospital. Although uterine rupture is usually a serious and potentially dangerous event because of massive uterine bleeding, our case is different from the previously reported cases in terms of the long duration after uterine rupture without bleeding. Sun et al. [4] reported a multiparous woman at the 17th week of gestation with spontaneous uterine rupture that was admitted to hospital with hemorrhagic shock. More than 2000 mL of hemoperitoneum was removed during her laparotomy. Park et al. [5] also reported a uterine rupture at the 6th week of gestation that presented with hemoperitoneum. Tola [6] presented a case of unscarred spontaneous uterine rupture at the 13th week of gestation with serious intraabdominal bleeding. All of the reports in the literature reported acute abdomen and emergency laparotomy because of copious intraabdominal bleeding. However, in the present case it is interesting that the uterine rupture did not cause bleeding and the patient was stable, and so we planned elective surgery. First trimester spontaneous uterine rupture like in our case is extremely rare and usually diagnosed intraoperatively [1,2,5].

Figure 3.

9+5 weeks old fetus in ampullary ectopic pregnancy focus.

Spontaneous uterine rupture usually involves the lower segment and occurs during labor, as women with upper segment scars undergo cesarean section before the onset of labor [7]. Although the rupture site is the lower segment in the third trimester or during labor, a common rupture site is the fundal region in first trimester ruptures [3,5]. In our case, in contrast to the literature, the rupture site was in the lower segment. When uterine rupture occurs, patients usually present with abdominal pain, vaginal bleeding, and vomiting [6]. Clinical signs of uterine rupture in early pregnancy are nonspecific and must be distinguished from those of acute abdominal emergencies. The differential diagnosis should be done with bleeding corpus luteum, ectopic pregnancy, and molar pregnancy with invasion [1]. Sometimes ultrasound has limited value for differential diagnosis and urgent surgery is necessary to prevent sequelae. However, in our case in the ultrasound examination the fetus was outside the uterus and our initial diagnosis was uterine rupture. Treatment of uterine

Figure 4.

Gross appearance of the fetus

rupture depends on many factors like extent of the lesion, parity and age of the patient, desire for future pregnancy, and expertise of the surgeon. Suturing can be performed in women who wish to preserve fertility, like in our case. The risk of rupture recurrence is between 4 and 19% for a subsequent pregnancy and this should be discussed with the patient [8]. In conclusion, first trimester uterine rupture is an extremely rare condition, but clinicians should be aware of this rare but serious complication, because the number of uterine operations is rising. Clinical signs of uterine rupture in early pregnancy are nonspecific. Although uterine rupture is supposed to be a potentially dangerous event, the patient may be stable without bleeding for a long time, like in our case.

Conflict of Interest

Authors declare no conflict of interest.

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