

Uterine rupture in twin pregnancy complicated with herniation of amniotic sac and umbilical cord: a case report

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Summary

The typical symptom of complete uterine rupture is continuous pain in lower abdomen. The prognosis of a complete uterine rupture is poor. However, twin pregnancy with asymptomatic uterine rupture leading to two live fetuses are rare. The authors report a case of a 41-year-old asymptomatic woman with twin pregnancy (gravida 4, para 1) who presented with a large herniation of the amniotic sac through the left uterine horn that was detected by ultrasonography at 26⁺⁵ weeks of gestation. After comprehensive counseling and under close observation, the patient chose to proceed with her pregnancy and extend the pregnancy to 28⁺⁵ weeks gestation. Scarred uterine is the most common risk factor of uterine rupture during pregnancy. The typical symptom of complete uterine rupture is continuous pain in lower abdomen. However, there is no characteristic presentation in uterine rupture. Ultrasound and MRI are all important supplementary means to diagnose the uterine rupture. Therefore, obstetrician should pay more attention to the patients who have the related history or are suspected uterine rupture during pregnancy.

Key words: Uterine rupture; Twin pregnancies; Obstetrics; Pregnancy.

Introduction

Uterine rupture is a severe complication of pregnancy associated with maternal and fetal morbidity and mortality. In some countries it most commonly occurs in women who have previously delivered by caesarean section [1]. However, the risk factors of the history of myomectomy cannot be also ignored. The typical symptom of complete uterine rupture is continuous pain in lower abdomen. However, there is no characteristic presentation in uterine rupture. Herein, the authors report a case of an asymptomatic uterine rupture woman with twin pregnancy.

Case Report

A 41-year-old G4/P1 was provided with embryos for in vitro fertilization-embryo transfer (IV-FET). Monochromic twins were clarified by ultrasonography. She was offered the laparoscopic myomectomy of the left horn of uterus two years ago. The historical ultrasonography of the pregnant women revealed no structural abnormalities of the uterus. During the pregnancy, she received regular prenatal care, and there were no symptoms of abdominal pain. She presented at 26⁺⁵ weeks of gestation with a large herniation of the amniotic sac through the left uterine horn that was detected through routine ultrasonography because she felt an occasional slight abdominal pain. Ultrasonography revealed a rupture of the left uterine horn. Therefore, she went to hospital. MRI revealed a 9.7×7.9cm² rupture of the left uterine horn (arrows) (Figure 1) and two fetuses in the uterus. The patient and her partner were informed of the potential risks of these findings, including complete uterine rupture, placenta accreta, hysterectomy, and preterm birth. They opted to proceed with the

pregnancy with close monitoring. Repeat ultrasonography at 28⁺⁵ weeks of gestation revealed that the uterine rupture had extended 2.0 cm (see Figure 2), and the herniated sac had grown and included the fetal umbilical cord. The patient and her partner chose to deliver. At 28⁺⁵ weeks of gestation, and two healthy male newborns weighing 1,085 and 840 grams were delivered by cesarean section. After the delivery, the left posterior uterine rupture and large amniocele were identified and repaired. The patient had an uncomplicated postoperative course and was discharged from the hospital days later. At nine months of age, the babies were alive

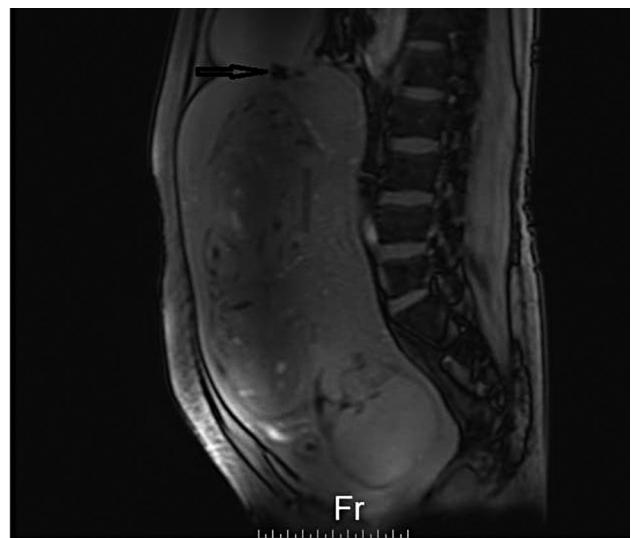


Figure 1. — A 9.7×7.9 mm² rupture of the left uterine horn by MRI (arrows).

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Figure 2. — An extended 2.0-cm rupture of the left uterine horn by ultrasonography (arrows).

and well. The case report was approved by the pregnant woman and her partner.

Discussion

Spontaneous rupture of uterus during pregnancy is an obstetric rarity [2]. The diagnosis is not always obvious and morbidity and maternal and fetal mortality is high [3]. There is currently little information about continued pregnancies after rupture of the uterus. It has been reported that a 33-year-old asymptomatic woman presented at 22 weeks of gestation with a large herniation of the amniotic sac through the left uterine wall and proceeded with the pregnancy to 30 weeks with close monitoring [4]. Spontaneous uterine rupture is an unpredictable event that requires a high index of suspicion for diagnosis. Generally, there is a history of uterine surgery, which was true for our patient as well [5]. Usually the site of spontaneous rupture is the upper segment for the traditional cesarean section, but the lower segment ruptured in our patient because of the new style cesarean section. We report the case of asymptomatic woman with twin pregnancy presented with a large herni-

ation of the amniotic sac through the left uterine horn; she was offered a laparoscopic myomectomy of the left horn of uterus two years ago. The historical ultrasonography of the pregnant women revealed no structural abnormalities of the uterus. Therefore, a high degree of suspicion is required when pregnant women present with abdominal pain, especially if they have a history of uterine surgery [6]. The case is ultrasonography of an asymptomatic uterine rupture. Therefore, obstetricians should pay more attention to patients who have related history or who are suspected of uterine rupture during pregnancy.

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