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Case Report

Appearance of Dehiscence at the Uterine Scar Site on Ultrasound: A Case Report

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ABSTRACT

With the increase in cesarean section rates, uterine rupture, one of the obstetric emergencies, has become an important clinical condition leading to maternal–fetal mortality and morbidity. According to risk factors for uterine rupture, it can be classified as rupture of a previous scar (cesarean section, myomectomy), traumatic rupture of the uterus (resulting from trauma), spontaneous rupture of the uterus due to underlying pathologies (uterine anomalies, multiparity), and spontaneous uterine rupture in apparently normal primigravida patients. Among these, uterine rupture due to a scarred uterus is the most commonly seen. Currently, optimal cutoff values for predicting uterine scar rupture have not been definitively established. A 35-year-old pregnant woman, gravida 3, parity 2, with a history of 2 previous cesarean sections, was seen during a routine outpatient clinic visit when she was 23 weeks and 2 days pregnant based on her last menstrual period. During the visit, approximately a 5 cm area of amniotic fluid protruding toward the bladder was observed along the old incision line, suggesting a disruption in the continuity of the myometrium at the scar site. Preoperative preparations were made, and the patient was taken for a cesarean section. Interestingly, there was no apparent evidence of dehiscence, which is commonly seen in many patients who have had previous cesarean sections. The cesarean section was successfully completed without complications.

Keywords: Cesarean, uterine rupture, ultrasonography

INTRODUCTION

With the increase in cesarean section rates, uterine rupture, one of the obstetric emergencies, has become an important clinical condition leading to maternal–fetal mortality and morbidity.[1] According to risk factors for uterine rupture, it can be classified as rupture of a previous scar (cesarean section, myomectomy), traumatic rupture of the uterus (resulting from trauma), spontaneous rupture of the uterus due to underlying pathologies (uterine anomalies, multiparity), and spontaneous uterine rupture in apparently normal primigravida patients. Among these, uterine rupture due to a scarred uterus is the most commonly seen.[2-4] Studies have reported that the number of previous births and the number of previous cesarean sections do not significantly affect uterine wall thickness. However, it has been noted that wall thickness significantly decreases with increasing gestational age.[5] Among pregnant women with a history of previous cesarean sections, those with thinning in the lower uterine segment during intraoperative assessment were reported to have lower ultrasonographic measurements compared to those with normal findings. Ultrasonographic evaluation has been suggested to be useful in detecting lower uterine segment defects.[6] A meta-analysis highlighted that due to the heterogeneity of studies, exact cutoff values for predicting uterine rupture could not be determined, but the optimal thickness values for the lower uterine segment were emphasized to be in the range of 1.4-2.0 mm.[7] Currently, optimal cutoff values for predicting uterine scar rupture have not been definitively established. In this case report, the lower segment of the uterus appeared intact at the time of operation, although ultrasonography showed separation at the site of the cesarean scar.

CASE PRESENTATION

A 35-year-old pregnant woman, gravida 3, parity 2, with a history of 2 previous cesarean sections, was seen during a

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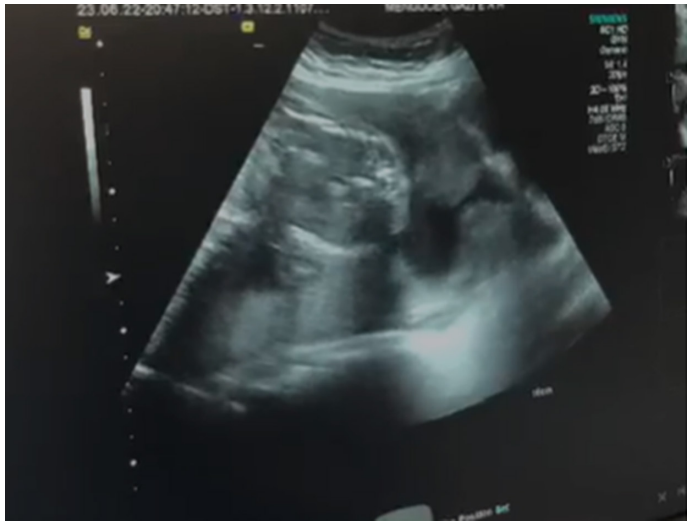

Figure 1. Disruption of the continuity of the myometrium at the caesarean scar site on ultrasonographic imaging.

routine outpatient clinic visit when she was 23 weeks and 2 days pregnant based on her last menstrual period. During the visit, approximately a 5 cm area of amniotic fluid protruding towards the bladder was observed along the old incision line, suggesting a disruption in the continuity of the myometrium at the scar site (Figure 1). The patient had a posteriorly located placenta, and her measurements were consistent with 22-23 weeks of gestation. The cervix was closed, measuring 48 mm. The thickness of the formation between the bladder and amniotic sac was measured at 3.1 mm. The patient reported feeling pain at the incision site and was admitted to the hospital for further evaluation.

Repeat ultrasounds showed that the previously observed image had disappeared and that the thickness of the old incision site had increased to 6.4 mm. As the patient's hemoglobin levels remained stable, she was discharged and scheduled for weekly outpatient follow-ups. During these follow-up visits, the same image reappeared and was then resolved. At 35 weeks and 6 days of gestation, the patient began experiencing contractions during a non-stress test, leading to her admission to the hospital.

A subsequent ultrasound examination showed a defect-like appearance at the incision site. After preoperative preparations, the patient was transferred to the operating room for a cesarean section. Interestingly, there was no apparent evidence of dehiscence, which is commonly seen in many patients who have had previous cesarean sections (Figure 2). The cesarean section was successfully completed without complications. Written informed consent was obtained from the patient who participated in this study.

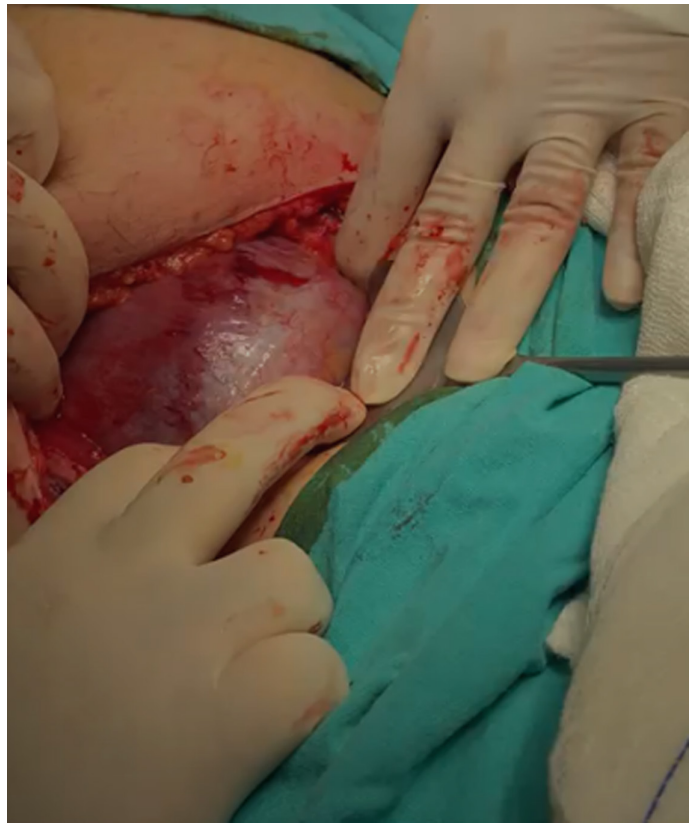

Figure 2. Appearance of the previous incision site during caesarean section.

DISCUSSION

As seen in this case, the thinned appearance of the uterine scar on ultrasound may not always be associated with dehiscence. Patients may not have the same appearance consistently at every imaging session. In a study by Agwany et al.,[8] it was argued that the appearance of the isthmus detected at the site of the old incision of the uterus can be used to predict rupture and that pregnancy may be risky when myometrium thickness thinner than 3 mm is detected. Kement et al.[9] tried to predict the risk of uterine rupture by considering various factors. They argued that 5% better results would be obtained when uterine lower segment myometrium thickness was added to these data. However, a cutoff value for uterine lower segment thickness cannot be determined.

In this instance, the patient was incidentally diagnosed during routine outpatient clinic follow-up and was closely monitored until term gestation was reached. Nevertheless, while ultrasound follow-ups are important, extensive studies are needed to establish a cutoff value for the thickness of the lower segment of the myometrium.

The case report can be summarized as follows:

1. The case involves an incidental finding during a routine outpatient clinic visit of a pregnant patient with a history of previous cesarean sections.
2. Ultrasound imaging showed a thinned appearance of the uterine scar, raising concerns about uterine dehiscence, which is the separation of the uterine scar.
3. The case highlights that the thinned appearance of the uterine scar on ultrasound may not be consistent across all imaging sessions and may not always indicate uterine dehiscence.
4. The patient was closely monitored throughout her pregnancy until reaching full-term gestation.
5. The report underscores the importance of further extensive studies to establish a definitive cutoff value for the thickness of the lower segment myometrium to predict uterine scar dehiscence.

Overall, the case report emphasizes the importance of vigilant monitoring and further research in cases involving uterine scar thinning seen on ultrasound during pregnancy. It suggests that not all thinning necessarily indicates uterine dehiscence, and additional studies are needed for more precise diagnostic criteria.

Informed Consent: Written informed consent was obtained from the patient who participated in this study.

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