

## CASE REPORT

# An unusual case of uterine window revealing the placenta: A diagnostic dilemma between scar dehiscence and the placenta accreta spectrum

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## ABSTRACT

Uterine scar dehiscence, or the "uterine window", is a complication of a repeat cesarean section. Preterm delivery, caesarean sections performed more than twice in the past, or less than a 24-month interval between deliveries are all connected with an increased risk. The terms placenta accreta spectrum (PAS) and uterine scar dehiscence are frequently used interchangeably. A 25-year-old unbooked pregnant woman, gravida 3 para 2 live 1, presented to outpatient department (OPD) at 37 weeks gestation. During the intraoperative phase, we discovered a silent scar dehiscence with partially visible placental lobes under the intact serosa mimicking the PAS. A lower-segment caesarean section was performed, and the placenta was totally separated. After the cesarean incision was closed, the myometrial defect was corrected. It is crucial to distinguish it from disorders in the PAS, as prenatal imaging can be deceptive if not performed with the requisite expertise to distinguish between the two conditions. This distinction will inform the treatment strategies for uterine dehiscence and PAS disorders, which are distinct.

**Key words:** caesarean scar, myometrium, placenta, prenatal, placenta accreta spectrum.

## INTRODUCTION

Uterine scar dehiscence, colloquially known as the "uterine window", is a prevalent complication that occurs in 4.7% of previous caesarean pregnancies. The lower uterine segment thickness cut-off value of 1.6 mm has a sensitivity of 77.8%, specificity of 88.6%, positive predictive value of 25.9%, and negative predictive value of 98.7% in predicting uterine scar dehiscence.<sup>[1]</sup> A short interpregnancy interval and a history of preterm caesarean deliveries increase risk.<sup>[2]</sup>

Placenta accreta spectrum (PAS) and uterine scar dehiscence can be easily confused with each other. During the caesarean section an attempt to remove the placenta can lead to significant bleeding, with documented maternal fatality rates as high as 7% in PAS.<sup>[3,4]</sup>

Preoperative ultrasound detected 26.1% of uterine scar dehiscence cases. The intraoperative detection rate was 69.6%, and the postpartum detection rate was 4.3%, mainly due to clinical symptoms and signs.<sup>[5]</sup>

## CASE REPORT

A 25-year-old unbooked pregnant woman, gravida 3 para 2 live 1, presented in outpatient department (OPD) at a gestation age of 37 weeks. This was a spontaneous conception. Her previous obstetric history revealed the first full-term vaginal delivery of a live male child with a birth weight of 2.10 kg, 4 years ago. The second was a full-term stillbirth delivered by caesarean section two years ago at a private hospital. The indication of caesarean section and the cause of stillbirth could not be known

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due to the unavailability of the documents. There was no history suggestive of hypertension, diabetes, or other medical disorders.

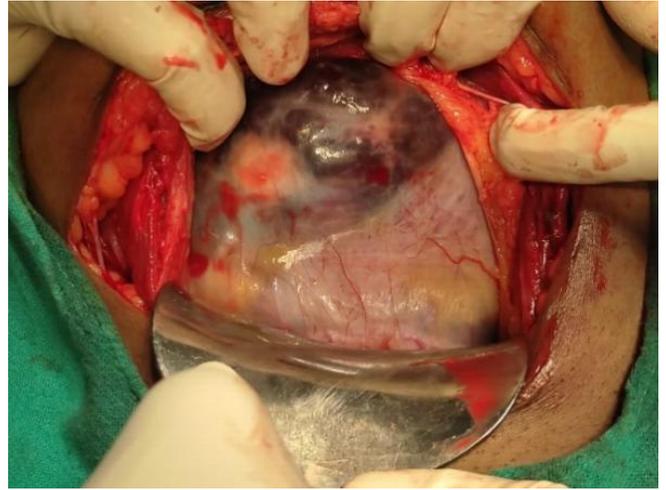
On examination, the patient was averagely built, oriented to time, place, and person; pallor and icterus were absent. Her vital signs were, pulse rate of 86 beats per minute, respiratory rate of 20 breaths per minute, blood pressure of 126/74 mmHg, and temperature of 37.5°C. On abdominal examination, there was a transverse suprapubic scar with keloid formation, no scar tenderness, fundal height of 36 weeks, longitudinal lie, cephalic presentation, no uterine contraction, and a fetal heart rate (FHR) of 144 beats per minute.

Her recent ultrasound examination showed a single live fetus at 34 weeks and 6 days gestation with a FHR of 155 beats per minute. Placenta anterior, upper segment, and adequate amniotic fluid.

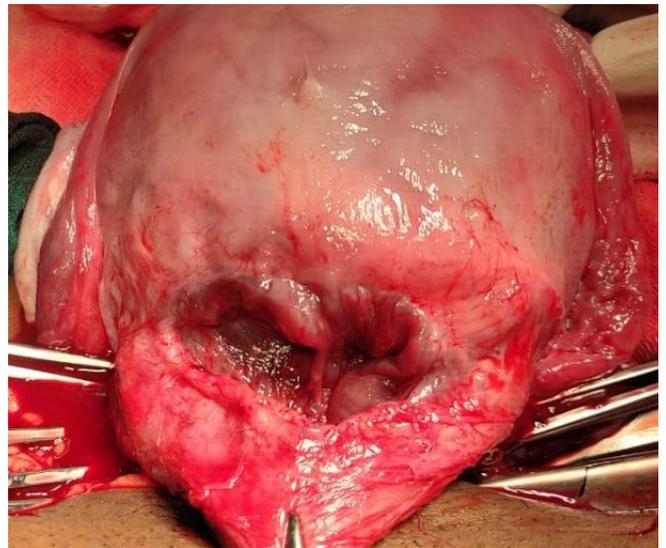
In view of her previous history of full-term stillbirth, the patient was admitted for maternal and fetal evaluation and planned for an elective cesarean section after the initial workup. Intraoperatively, we observed a 6 x 5 cm rent in the uterine musculature approximately 3–4 cm above the lower uterine segment, through which partially visible placental lobes were observed with intact serosa (Figure 1). Apparently, this was suggestive of a scar dehiscence from her previous caesarean section, as no other scar could be identified in the lower segment. There was no hypervascularization over this segment of the uterus. The bladder was adhered to the lower segment of the uterus, with the uterovesical fold of the peritoneum reaching to the lower border of the bulge. Retracting the bladder below, a lower-segment cesarean section was performed. A live female neonate was delivered as a vertex, cried immediately, and was handed over to the pediatrician after immediate cord clamping. The birth weight was 2.37 kg. The placenta got separated with complete membranes on gentle traction (Figure 2). There was no blood clot in the uterine cavity. A good uterine tone was achieved after administering uterotonics. The cesarean incision was closed in two layers, followed by the closure of the defect by approximating the edges. The total blood loss was 1500 mL. The patient has received one unit of packed red blood cells (PRBC) in the postoperative period. The patient was counseled about family planning. On the eighth postoperative day, the patient and newborn were discharged in good condition.

## DISCUSSION

The myometrial layer's thickness in a previous caesarean section scar undergoes changes during pregnancy, with a more significant decline occurring between the second



**Figure 1.** Lobes of placenta visible through the uterine window covered by serosa.



**Figure 2.** Uterine window after the expulsion of placenta suggestive of scar dehiscence.

and third trimesters in a group of individuals with a Caesarean scar niche.<sup>[6]</sup> Myometrial thinning occurs in 0.2%–4.3% of post caesarean pregnancies and this increases risk of low birth weight, subsequent preterm delivery, and peripartum hysterectomy.<sup>[7]</sup> Uterine scar dehiscence is observed in 1.03% of women who undergo a repeat caesarean section following one previous caesarean surgery. Uterine scar dehiscence is found to be linked with failure to progress during the first stage of labor and lower parity in patients who had undergone only one previous caesarean delivery.<sup>[8]</sup>

With ultrasonography or magnetic resonance imaging (MRI), uterine scar dehiscence can be accurately diagnosed in utero and differentiated from PAS

throughout pregnancy. In cases of uterine dehiscence, imaging features include a protruding placenta, absence of the clear or hypoechoic area behind the placenta, absence of myometrium in the region of the placental protrusion, but the characteristic 'uterine window'—visible, normal myometrium on both sides of the protrusion. Usually, the bulge becomes smaller, and the placenta seems consistent throughout, showing no signs of neovascularization, placental lacunae, or other symptoms of PAS. As there is a significant chance of uterine rupture, caution is required in differentiating between the two conditions.<sup>[5,9]</sup>

In transvaginal ultrasound a total thickness of less than 3.65 mm is considered a thin scar, and a thickness less than 2.85 mm is linked to an increased risk of uterine dehiscence.<sup>[10]</sup>

Dehiscence of the uterine scar may result in uterine rupture, with the aggregated prevalence rate of 5/1000 after one prior low transverse incision and 0.7/100,000 in unscarred uterus.<sup>[11]</sup>

According to a systematic review, there is no significant difference in the incidence of caesarean scar abnormalities between single- and double-layer closure of the uterine incision following cesarean section, as well as between uterine dehiscence and rupture in a subsequent pregnancy.<sup>[12]</sup>

## CONCLUSION

A prior caesarean incision can give rise to the dreadful complication of silent uterine dehiscence, which has the potential to cause irreparable harm to both the mother and the fetus. The present case report is showing the finding of silent scar dehiscence and exposure of placenta through the uterine serosa intraoperatively in a previous caesarean pregnancy without PAS disorder or the low-lying placenta. High index of suspicion and preoperative detection of this condition by ultrasonography should be done to prevent the maternal and neonatal morbidity and mortality. It is crucial to distinguish it from disorders in the PAS, as prenatal imaging can be deceptive if not performed with the requisite expertise to distinguish between the two conditions. This distinction will inform the treatment strategies for uterine dehiscence and PAS disorders, which are distinct. Early detection during the antenatal period can avert the catastrophe.

## DECLARATION

### Author contributions

Pipal VR: Conceptualization, writing original draft, review and editing. Bala P: original draft editing. Sing A-

Review and editing. Seth S: Review.

### Ethics approval

This project was approved by the Institutional Human Ethics Committee of All India Institute of Medical Sciences (No. IHEC/AIIMS-GKP/Case report/01/2024). Written informed consent was obtained from the patient.

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### Conflict of interest

The author has no conflicts of interest to declare.

### Data availability statement

No additional data.

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