

Uterine Dehiscence in the Second Trimester -A Case Report of Ultrasound Findings and Management

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Introduction

Cesarean section is the most performed surgery in the United States. In 2022, the rates of CS in the US is 32.1%.⁴ Uterine rupture is a rare but serious complication in pregnant women with previous cesarean sections and can cause significant maternal and fetal morbidity and mortality. Uterine dehiscence is a strong risk factor for uterine rupture and occurs in 0.2% - 4.3% of all pregnancies with a history of previous cesarean section.¹ The definition of uterine dehiscence has been previously described as partial separation of previous uterine scar with an intact uterine serosa or a very thin layer of myometrium. This is a case report of a patient with a history of uterine dehiscence who was incidentally diagnosed with another uterine dehiscence during her anatomy ultrasound who was then expectantly managed successfully until 36 weeks of gestation.

Case

A 31 year old, G6P4014, presents for her routine anatomy scan at 20w3d gestation with an extremely thin lower uterine segment suspicious for uterine dehiscence. Patient has had 4 cesarean sections with incidental uterine dehiscence's found at time of delivery in her last 2 cesarean sections.

Her first cesarean section was performed due to arrest of dilation. For her 3rd cesarean section, she presented at 39 weeks for a scheduled repeat procedure and a complete dehiscence of prior uterine scar was found. For her 4th cesarean section, she presented at 37 weeks with premature rupture of membranes and a partial dehiscence of prior uterine scar with only intact serosa was found.

During this pregnancy, at the time of her anatomy ultrasound at 20w3d, an extremely thin lower uterine segment was seen with a retrovesicular, avascular area (4.4 x2.9cm) that was bulging into the bladder suspicious for a uterine dehiscence. At 24 weeks, this segment continued to appear extremely thin (1.5mm) with 3D imaging showing a fenestration with no myometrial tissue.

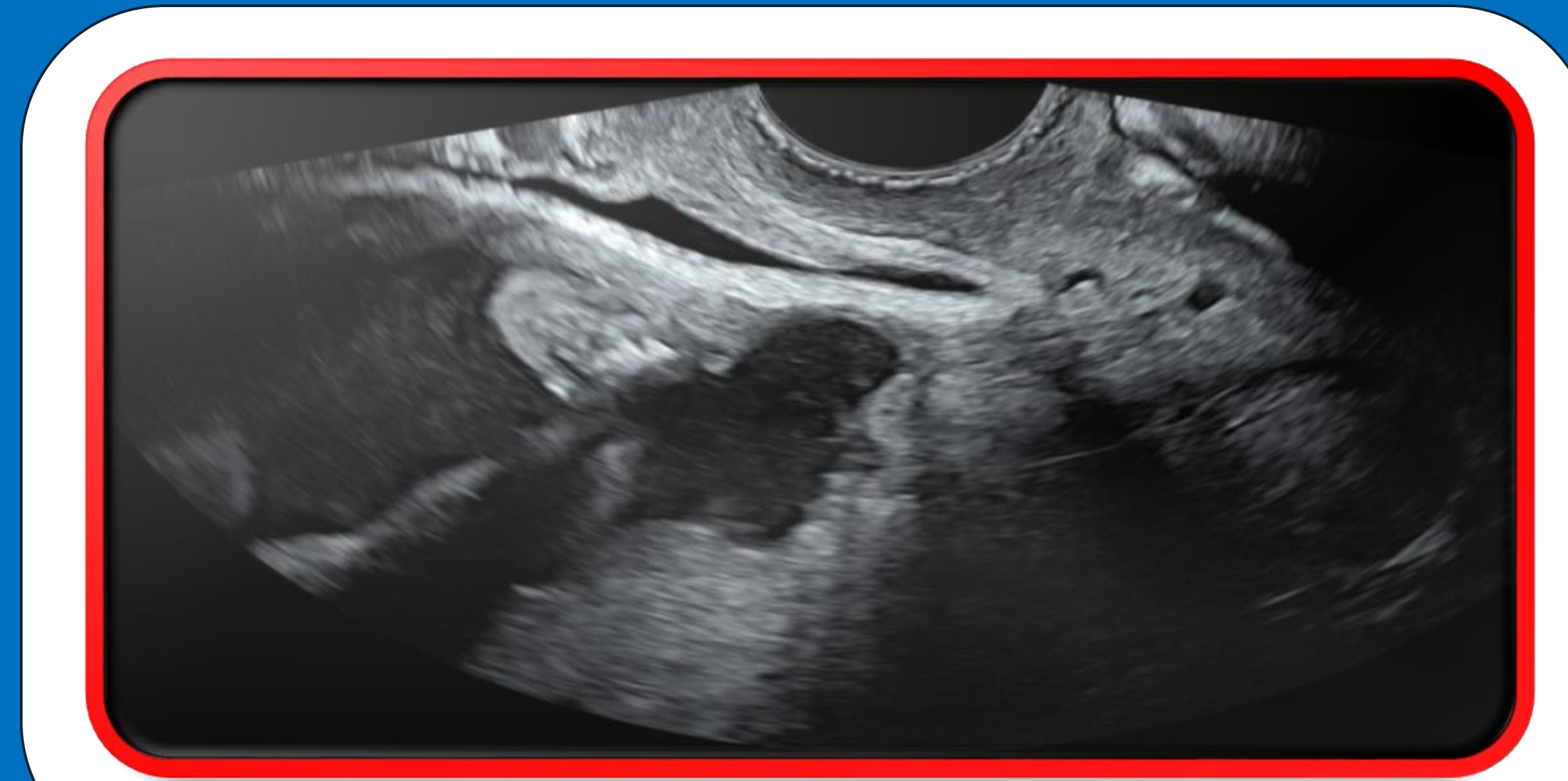


Figure 1. Thin lower uterine segment as seen first time on anatomy ultrasound

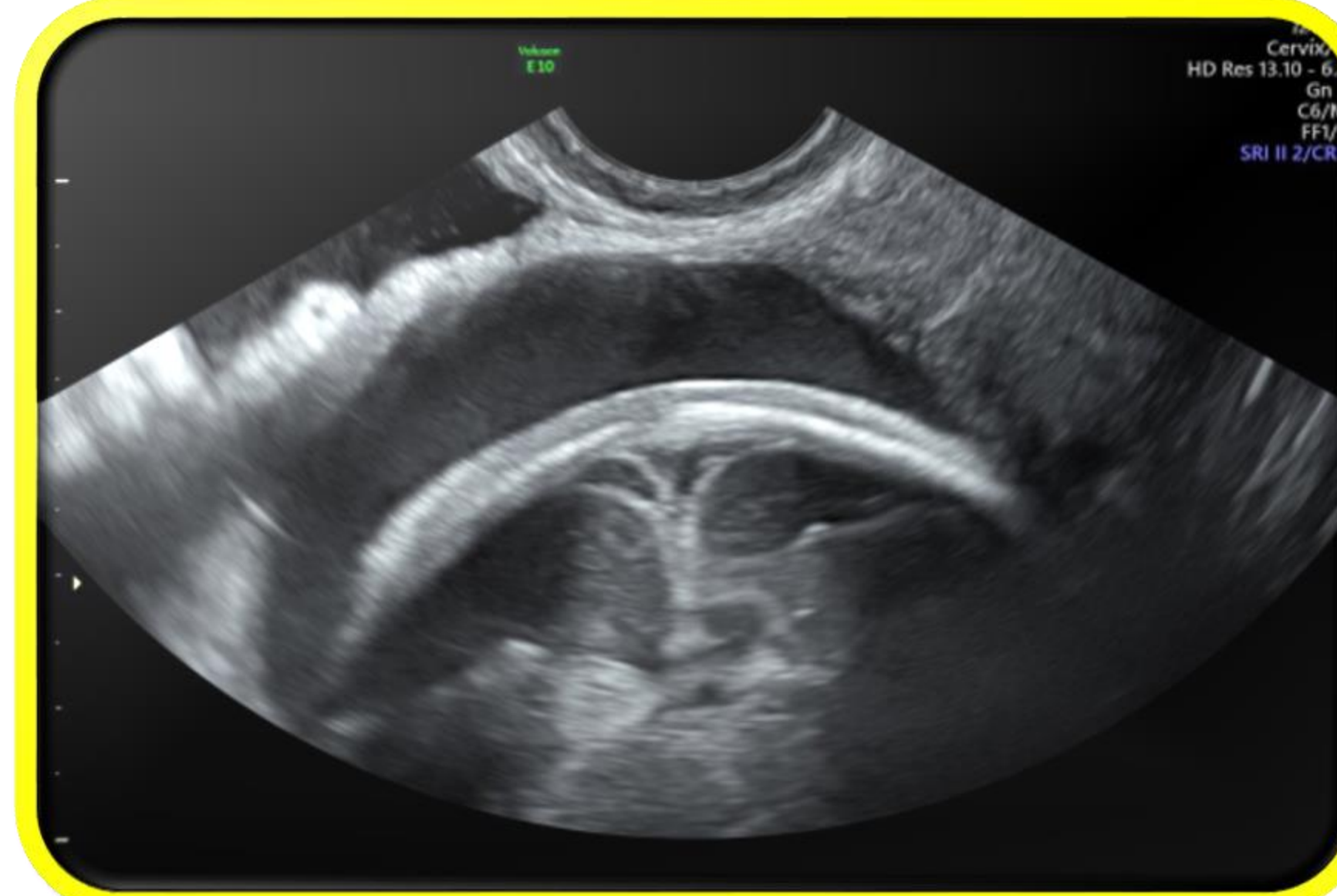


Figure 2. Thin LUS as seen at 24w3d



Figure 3. Thin LUS and bladder as seen at 30w1d

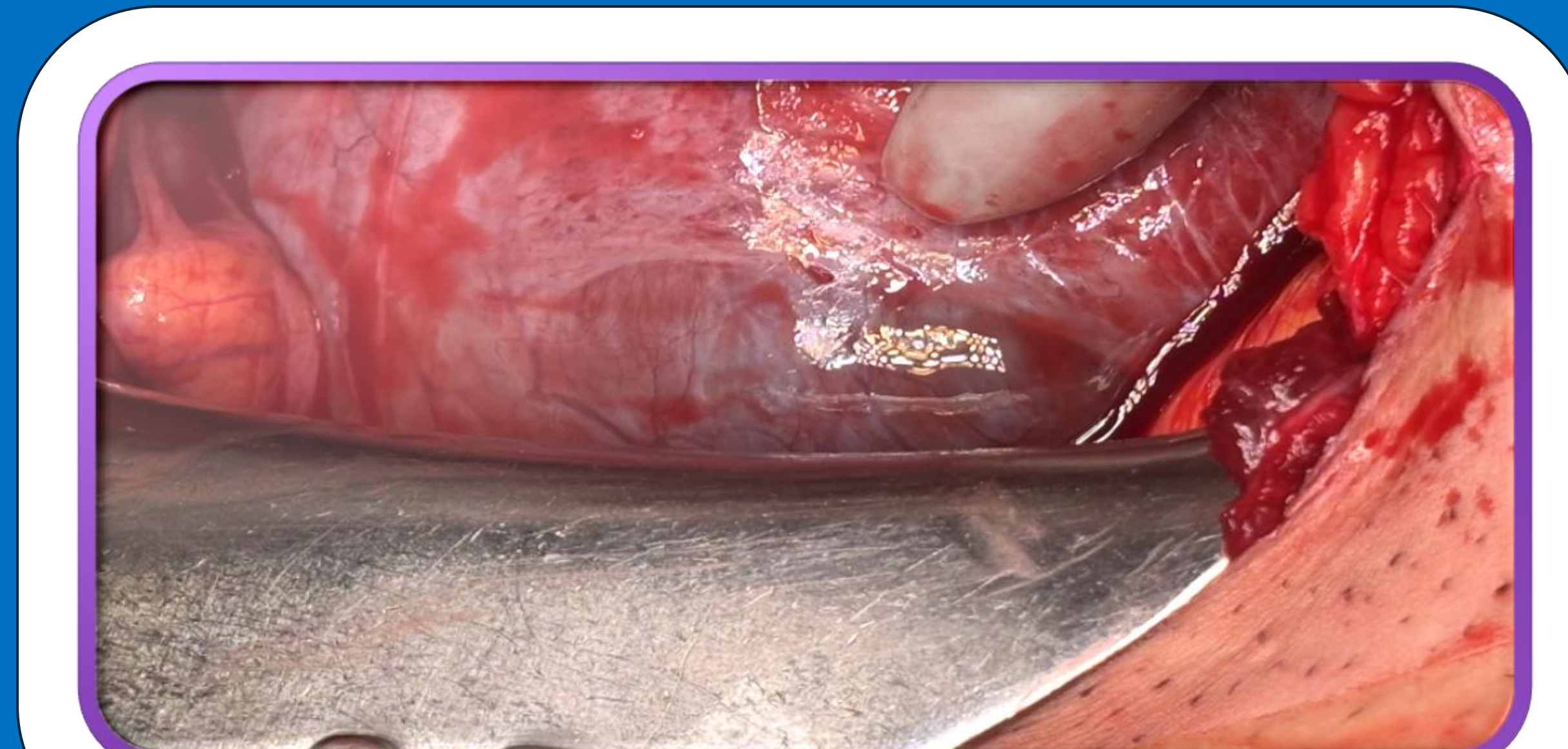


Figure 4. Uterine dehiscence as seen during cesarean section

Decision was made for inpatient monitoring at 32 weeks due to the risk of uterine rupture and patient's distance from the hospital. She had weekly ultrasounds and twice daily non-stress tests which were unremarkable. At 36 weeks, she underwent a scheduled repeat cesarean section which showed an extremely thin lower uterine segment with only serosa intact. After the fetus was delivered, there was no lower uterine segment left remaining to safely close the hysterotomy and the patient underwent an uncomplicated supracervical hysterectomy. Newborn had no complications and was discharged home with patient on day 2 of life.

Discussion

Currently there is no established guidelines on predicting uterine rupture or management of uterine dehiscence diagnosed antenatally. Prior meta-analysis for risk of uterine rupture for VBAC have shown that LUS > 3.65mm should be safe, <2mm poses a higher risk.³ However the heterogeneity of study methods and measurement techniques makes LUS measurement standardization difficult.² Expectant management for uterine dehiscence diagnosed in the second or third trimester have been reported in prior case reports however the timing of delivery poses a change for clinicians.

Conclusion

Scheduled cesarean section prior to onset of labor in asymptomatic patients with thin lower uterine segment suggestive of uterine dehiscence seems to be the preferred management option. The timing of delivery however should be individualized based on patient's symptoms, prior surgical history, and fetal testing status.

References

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