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Case Report

Second trimester uterine rupture: an unusual presentation

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ABSTRACT

Uterine rupture is a rare but life-threatening obstetric emergency, particularly in the second trimester. It is often associated with previous uterine surgery, such as caesarean delivery or myomectomy. The condition presents a significant risk to both the mother and the fetus, often leading to fetal demise and severe maternal morbidity if not diagnosed and managed promptly. This case report discusses a 30-year-old female with a history of a previous lower segment caesarean section (LSCS) who presented with acute abdominal pain and hemodynamic instability. Ultrasound and intraoperative findings confirmed uterine rupture with fetal extrusion into the abdominal cavity. The case underscores the importance of early diagnosis, rapid surgical intervention, and meticulous antenatal monitoring in women with previous uterine surgery.

Keywords: Uterine rupture, Second trimester, Caesarean scar, Obstetric emergency, Pregnancy complications

INTRODUCTION

Uterine rupture is an uncommon but catastrophic complication of pregnancy, defined as a full-thickness disruption of the uterine wall. It occurs more frequently in women with a history of previous caesarean delivery or other uterine surgeries.

The overall incidence of uterine rupture is estimated at 0.07% in all pregnancies, with a higher prevalence of 0.88 to 1.10% among women with a previous caesarean section. It is associated with significant maternal morbidity (34%) and mortality (3%).[1]

The primary risk factor for uterine rupture is the presence of a uterine scar, particularly from prior caesarean delivery, myomectomy, or uterine evacuation procedures such as dilation and curettage. Additional risk factors include obstructed labor, grand multiparity, uterine anomalies, trauma, placenta accreta spectrum, and the use of uterotonics.[1,2]

Complications of uterine rupture include fetal hypoxia, anoxia, cerebral damage, and intrauterine fetal demise. Maternal complications include massive hemorrhage, hypovolemic shock, visceral injury, and even maternal death. Early identification and timely surgical intervention are crucial to improving maternal and fetal outcomes.

This case report highlights the clinical presentation, diagnosis, and management of a second-trimester uterine rupture in a young woman with a history of previous caesarean delivery.

CASE REPORT

A 30-year-old female presented to the emergency department with complaints of severe abdominal pain, vaginal bleeding, weakness, and dizziness. She had a history of one previous caesarean section and eight months of lactational amenorrhea.

Her menstrual cycles were irregular, occurring every 28 to 30 days. Her obstetric history included one prior LSCS and

no other uterine surgery. She was gravida 2 para 1 live 1, married for two years, and had no known medical comorbidities.

On general examination, the patient appeared pale and in moderate distress. Her vital signs were: blood pressure 124/80 mmHg, pulse 76 beats per minute, temperature 98°F, and normal respiratory rate.

Per abdominal examination revealed a bulky and tender uterus. Fundal height corresponded to 16 weeks of gestation with tenderness over the previous caesarean scar site.

Per speculum examination showed minimal vaginal bleeding with a closed cervix. Per vaginal examination revealed a firm, long (1.5 to 2 cm), and closed cervix.

Ultrasound revealed a bulky uterus with an 11 mm defect in the lower uterine segment. A fetus with absent cardiac activity was noted outside the uterine cavity with herniation of the amniotic sac through the caesarean scar. Minimal free fluid was seen in the peritoneal cavity.

Based on the clinical and radiological findings, a diagnosis of uterine rupture was made, and the patient was taken for emergency laparotomy.

Intraoperatively, uterine rupture was found at the previous caesarean section scar. The fetus and placenta were found en sac in the abdominal cavity. There was no evidence of broad ligament injury or hematoma formation. A subtotal hysterectomy was performed, and the patient received two units of packed red blood cells intraoperatively.

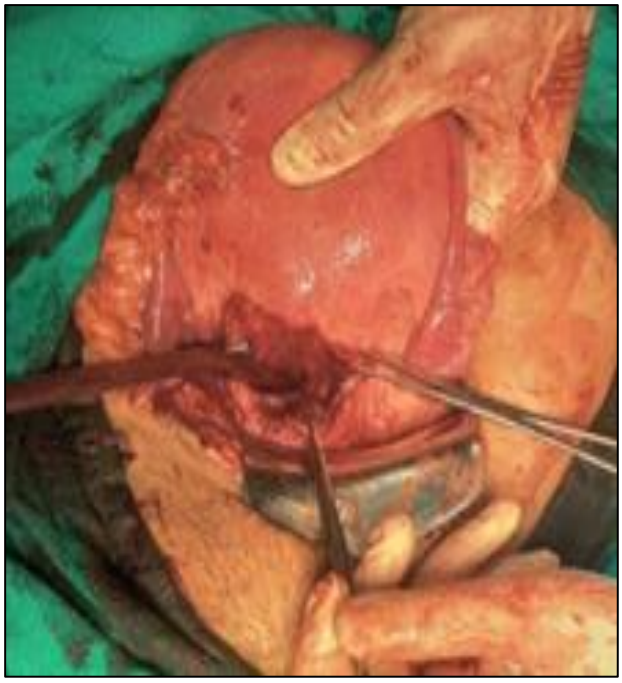

Figure 1: Intraoperative image of rupture of scarred uterus.

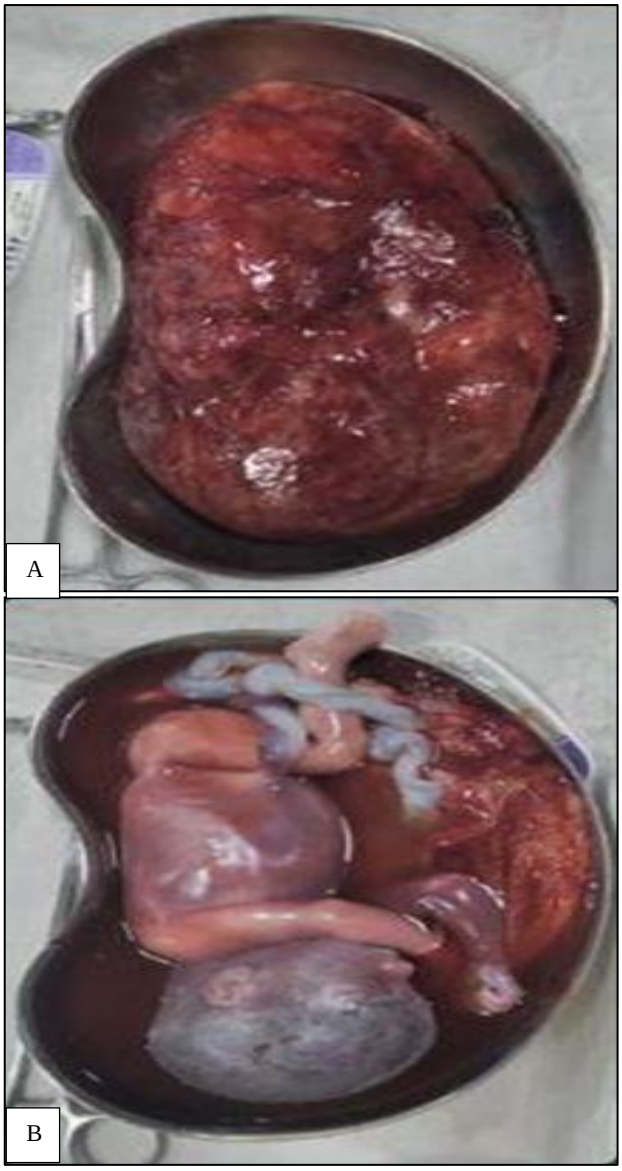

Figure 2 (A and B): Extracted fetus and placenta from the peritoneal cavity.

Postoperatively, the patient was monitored in the ICU for 48 hours. Her recovery was uneventful, and she was discharged on postoperative day four with stable vitals. She was scheduled for outpatient follow-up.

DISCUSSION

Uterine rupture occurs due to inadequate healing of a previous uterine scar, leading to thinning and eventual dehiscence under intrauterine pressure. The risk increases with advancing gestational age as the uterus expands.

Symptoms vary depending on gestational age and severity. Early pregnancy rupture may be asymptomatic or present with nonspecific signs like abdominal pain, vaginal bleeding, hypotension, or absence of fetal heart sounds. In later pregnancy, signs include sudden cessation of uterine

contractions, recession of fetal presenting parts, and palpation of fetal parts in the abdomen.[2,3]

Risk factors for rupture include previous caesarean section, previous uterine surgery such as myomectomy or metroplasty, congenital uterine anomalies, invasive placentation (placenta accreta spectrum), grand multiparity, and use of uterotonics like oxytocin and prostaglandins.[1,4] In this case, the previous caesarean section likely led to scar dehiscence.

Diagnosis is based on clinical findings and imaging. Ultrasound may reveal fetal parts outside the uterine cavity, thinning of the scar, and free fluid. MRI may be used when ultrasound is inconclusive. A high index of clinical suspicion is essential.[5]

Management includes emergency laparotomy to control hemorrhage and repair or remove the uterus. Hemodynamic stabilization through fluids and transfusion is crucial. In this case, subtotal hysterectomy was performed due to the severity of rupture and bleeding.

CONCLUSION

Uterine rupture should be considered in women with sudden abdominal pain, hemodynamic instability, and a history of previous uterine surgery. Prompt diagnosis and surgical management are key to improving outcomes. Counselling on delivery options and adequate birth spacing should be provided to women with prior caesarean sections.

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REFERENCES

1. Sugal S. Incidence of uterine rupture: a systematic review and meta-analysis. Obstetr Gynecol. 2023;142(6):1365-72.
2. Motomura K, Ganchimeg T, Nagata C, Erika O, Joshua PV, Ana PB, et al. Incidence and outcomes of uterine rupture among women with previous cesarean section: a multicountry study. Am J Obstet Gynecol. 2017;217(3):279.e1-11.
3. World Health Organization. Trends in maternal mortality 2000 to 2020: estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division. Geneva: WHO; 2023. Available at: https://www.who.int/publications/i/item/9789240077325. Accessed on 1 March 2025.
4. Bujold E, Gauthier RJ. Risk of uterine rupture associated with interdelivery interval. Obstet Gynecol. 2013;121(2):136-42.
5. Sharma R, Sharma A, Sharma S. Second trimester rupture of an unscarred uterus following blunt trauma: a rare case report. Int J Reprod Contracept Obstet Gynecol. 2018;7(12):5095-7.

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