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SPONTANEOUS UTERINE RUPTURE IN A PRIMIPAROUS WOMAN WITH PREVIOUS TRANS-CERVICAL SEPTAL RESECTION: A RARE CASE REPORT

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ABSTRACT

Background: Uterine rupture is a rare obstetric emergency typically associated with previous cesarean delivery or uterine surgeries. Rupture following hysteroscopic septal resection is exceptionally rare. **Case Presentation:** A 22-year-old primiparous woman at 30+5 weeks of gestation, with a history of hysteroscopic uterine septum resection 11 months prior, presented with lower abdominal pain. Ultrasound revealed a fundal uterine defect with herniation of the amniotic sac and umbilical cord. Emergency laparotomy conWirmed a 4 × 3 cm fundal uterine rupture. A 1.4 kg preterm female neonate was delivered. Postoperative recovery was uneventful, and the neonate was discharged from NICU till day 30 and discharged on Day 41. **Conclusion:** In primigravida without cesarean history, uterine rupture can occur due to prior uterine instrumentation. Early suspicion, imaging, and timely intervention are key to optimal outcomes.

KEYWORDS : Uterine rupture, hysteroscopic septum resection, primigravida, obstetric emergency, case report

INTRODUCTION

Uterine rupture refers to a complete breach of the uterine wall layers—endometrium, myometrium, and serosa—and carries substantial maternal and fetal morbidity and mortality [5]. Although commonly linked to prior cesarean section, rupture in an unscarred uterus remains exceedingly rare [2]. Hysteroscopic resection of a uterine septum is a standard treatment that are associated with obstetrical complications such as infertility, recurrent pregnancy loss, congenital anomalies however, it may weaken the fundal myometrium if excessive resection occurs [3]. This report highlights the rare and serious complication of uterine rupture in pregnancy in a primiparous woman with hysteroscopic septal resection.

Case Presentation

A 22-year-old woman, G2A1 living 0, presented at 30+5 weeks gestation with lower abdominal pain radiating to the back and thighs. The pain was sudden, intermittent and increasing in intensity.

- Obstetric history Prior pregnancy: Medical termination at 24 weeks for suspected fetal anomaly.
- Uterine anomaly: Diagnosed with a thick midline septum, resected hysteroscopically 11 months earlier.

Clinical Examination:

- Uterus: Corresponding to 30–32 weeks; cephalic; with mild intermittent contractions.
- Fetal heart rate: 140–145 bpm.
- **Cervix:** Soft, posterior, os closed. Ultrasound Findings:
- Single live intrauterine fetus at 30+6 weeks ±3.
- Fundal myometrial defect (4.4 × 4.1 cm) with herniated amniotic sac (9.1 × 7.5 cm) and umbilical cord loops – suggestive of rupture.

Surgical Management:

Emergency laparotomy revealed a 4 × 3 cm full-thickness rent at the fundus with protruding membranes. A 1.4 kg live preterm female was delivered. Rent was repaired in two layers with polyglactin sutures. Hemoperitoneum of 200 mL was evacuated.

Postoperative Course:

- Mother discharged on Day 3.
- Neonate stayed in NICU for 30 days for prematurity, discharged on Day 41.

DISCUSSION

Uterine rupture without prior cesarean section is rare, but prior uterine surgeries like septal resection can cause focal myometrial weakness, especially at the fundus. Literature suggests the incidence of rupture post-hysteroscopic septal resection ranges from 1% to 2.7% [3]. Most ruptures manifest with fetal heart abnormalities such as decelerations or bradycardia [1,2].In this case, ultrasound provided an early and definitive diagnosis, highlighting its importance in acute settings [5]. This case supports the need for closer surveillance in pregnancies following hysteroscopic surgeries [3].

CONCLUSION

Primigravida women with a history of hysteroscopic septum resection are at risk for uterine rupture, particularly at the fundus [1]. Early recognition via imaging and immediate surgical intervention can save both mother and baby [5]. Pre-conception counseling and antenatal planning are crucial in such high-risk cases [3].

Patient Perspective

The patient expressed sincere gratitude for the prompt diagnosis and surgical care, and was overjoyed to reunite with her healthy baby after NICU discharge.

Informed Consent

Written informed consent was obtained from the patient for publication of this report and associated images.

Conflict Of Interest

The authors declare no conWlicts of interest.

Funding

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Key Clinical Messages

- Uterine rupture may occur in unscarred uteri with a history of previous hysteria Coptic septal resection.
- Sonographic Windings can be diagnostic in atypical rupture presentations.
- Surgical preparedness and NICU support ensure favorable prognosis.

Figures

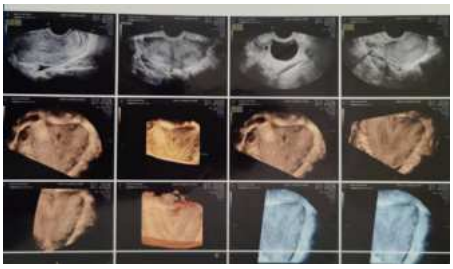

Figure 1: Transvaginal ultrasound (15 July 2022) showing thick midline uterine septum before hysteroscopic resection.

Caption

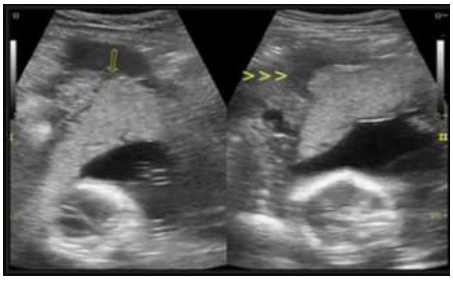

Figure 2: USG Windings: Single live intrauterine gestation of 30 weeks 6 days +/- 3 weeks in cephalic presentation with adequate interval growth. Adequate liquor volume (10 to 12 cm). Fundal myometrial defect (4.4 x 4.1 cm) with outpouching of amniotic sac (9.1 x 7.5 cm) and umbilical cord loops suggestive of uterine rupture.

Figure 3: Intraoperative image of fundal rupture (4 × 3 cm) with exposed amniotic sac and blood-stained serosa.

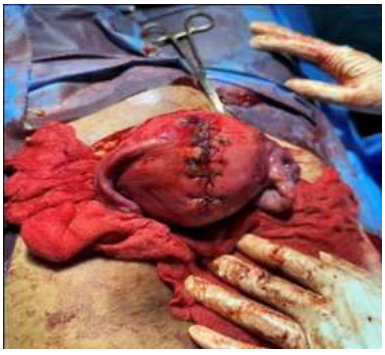

Figure 4: Uterus after repair showing two-layer suturing with polyglactin ensuring integrity.

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