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Case Report

A catastrophic posterior wall rupture in a non-scarred uterus: a life-saving obstetric hysterectomy

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ABSTRACT

Uterine rupture is a rare but life-threatening obstetric emergency associated with significant maternal and perinatal morbidity and mortality. Although uterine rupture is more common in women with a previous uterine scar, it can also occur in an unscarred uterus and is often unpredictable. This report aims to highlight the clinical presentation, management, and outcome of such a case. We describe a case of a 32 year old multiparous woman at 40 weeks and 3 days of gestation who was referred in a state of shock following a prolonged trial of labor. Clinical examination and intraoperative findings confirmed uterine rupture with intrauterine fetal demise. Emergency laparotomy was performed after initial resuscitation. Intraoperative findings revealed approximately 2 liters of hemoperitoneum and a complete rupture of the posterior wall of uterus vertically extending into the cervix and laterally extending to left pelvic wall, with the fetus lying in the peritoneal cavity. A total obstetric hysterectomy with left salpingo-oophorectomy was performed due to extensive rupture. The patient received blood transfusion and intensive postoperative care, resulting in gradual recovery and stabilization. Rupture of an unscarred uterus, though rare, can lead to catastrophic outcomes if not recognized promptly. Early diagnosis, timely referral, aggressive resuscitation, and prompt surgical intervention are critical for maternal survival. Strengthening intrapartum monitoring and ensuring appropriate labor management can help prevent such complications.

Keywords: Uterine rupture, Intra uterine death, Abdominal hysterectomy, Hemorrhagic shock, Hemoperitoneum, Unscarred uterine rupture

INTRODUCTION

Uterine rupture is a critical obstetric emergency leading to severe maternal hemorrhage, shock, and fetal loss. It is defined as a complete separation of all layers of the uterine wall and is associated with significant maternal and perinatal morbidity and mortality.¹

It involves a full-thickness tear of the uterine wall, most commonly occurring in a previously scarred uterus during labour, although it may rarely occur in an unscarred uterus. The reported incidence ranges from approximately 0.006–0.07% in developed countries to as high as 0.1–1.3% in low-resource settings.²

Major risk factors include prior cesarean sections, previous uterus rupture, grand multiparity, short inter pregnancy interval, injudicious use of oxytocin and misoprostol, obstructed labor, and unmonitored trial of labor.

Posterior wall rupture is extremely uncommon and has been reported in association with previous uterine instrumentation, myomectomy, congenital uterine anomalies, abnormal placentation, fetal malposition, and prolonged obstructed labour.^{3,4} These are thought to weaken the wall of the uterus, eventually leading to rupture. This report presents a case of 32 year old multigravida at term with posterior wall rupture of unscarred uterus during trial of labour. This case

highlights the importance of intra partum monitoring of labour and identify the high risks at the earliest to reduce morbidity and mortality in the patients.

CASE REPORT

A 32-year-old Gravida 3 Parity 2 Live 2 with a term gestation and previous uncomplicated vaginal term deliveries came to the hospital as referred case from a peripheral subcentre. She remained in labour for around 16 hours and also gave history of receiving some drugs for augmentation of labour. She reported a sudden subsidence of abdominal pain and absent fetal movements

On admission, patient's general condition was poor though she was conscious and oriented, she looked markedly pale and exhausted. On clinical examination her BP was 80/54 mmHg, pulse 130 bpm, SpO₂ 96%, and respiratory rate 26/min. Her systemic examination revealed clear bilateral breath sounds with normal S1 S2.

Abdominal examination demonstrated loss of uterine contour, fetal parts were easily palpable, generalized tenderness, and fetal heart sounds could not be localised. Mild bleeding was noted on per speculum examination.

Per vaginal examination revealed bleeding per vaginum with a pulled-up cervix and the presenting part could not be made out.

A provisional diagnosis of ruptured uterus with intrauterine fetal demise, hypovolemic shock, and severe anemia was made.

After taking informed high risk consent and adequate arrangements of blood products, patient was taken for Exploratory laparotomy.

Intraoperative findings revealed approximately 2 liters of hemoperitoneum and a complete posterior uterine wall rupture, extending vertically to the cervix and laterally to the pelvic sidewall, with disruption of the left infundibulopelvic ligament. The bladder was displaced superiorly and appeared edematous. A dead term female fetus weighing 2.5 kg was taken out from the peritoneal cavity posterior to the uterus.

Given the extensive injury and hemodynamic instability, a total obstetric hysterectomy with left salpingo-oophorectomy was performed. The massive transfusion protocol was promptly initiated and effectively executed.

After 3 days of ICU care patient was shifted to ward and the postoperative recovery was smooth, and the patient was discharged in stable condition. Patient remained in follow up till 2 months after the surgery.

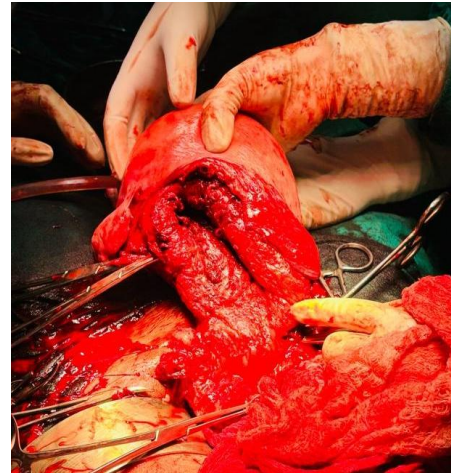


Figure 1: Posterior surface of uterus showing full thickness tear with cervical extension.



Figure 2: Posterior surface of rupture uterus and cervical extension with left fallopian tube and ovary.

DISCUSSION

Uterine rupture is defined as a complete separation of all layers of the uterine wall — endometrium, myometrium, and serosa — with or without extrusion of the fetus into the peritoneal cavity. It is a life-threatening obstetric emergency associated with significant maternal and fetal morbidity and mortality.³

Incidences of uterine rupture in developed countries are approximately 0.006–0.07% of pregnancies, and most commonly occurs in a previously scarred uterus, especially after previous cesarean section.⁵

While in developing countries, these incidences are significantly higher than developed countries; reported overall prevalence ranges from 0.1–1.3% in many low-resource settings.⁶

This is a rare case because rupture of an unscarred uterus and that to posterior wall rupture is an uncommon but life-threatening event. Compared to rupture in a scarred uterus, it is less predictable and often presents with sudden maternal deterioration and fetal compromise. The rupture extending to both upper and lower segment of posterior uterine wall as well as to lateral pelvic wall makes it clinically challenging for the operating surgeon.

In this case, the absence of prior uterine surgery suggests that prolonged labor and possible inappropriate augmentation were likely contributing factors. Multiparity is also a known risk factor due to repeated stretching of the uterine wall.⁷

Clinical signs such as abdominal tenderness, loss of uterine contour, easily palpable fetal parts, and absent fetal heart sounds are suggestive of uterine rupture. However, delayed diagnosis is common in peripheral healthcare settings.

Management depends on the extent of rupture and the patient's condition. While uterine repair may be considered in selected cases, extensive rupture involving the cervix and lateral pelvic wall requires hysterectomy for definitive management.

This case highlights the importance of timely referral, appropriate intrapartum monitoring, and cautious use of uterotonic agents to prevent such catastrophic outcomes.

Despite the availability of advanced intrapartum monitoring modalities, uterine rupture remains a stark reminder of gaps in skilled birth attendants, timely recognition of labor abnormalities, and rational use of drugs like misoprotol or oxytocin. Strengthening labor surveillance through the correct use of the partograph, exercising caution with oxytocin administration in multiparous women, and ensuring the availability of trained personnel at peripheral centers are crucial strategies for prevention.^{8,9}

CONCLUSION

This case represents a rare and remarkable instance of posterior uterine wall rupture in a completely unscarred uterus following an unmonitored trial of labor in a multiparous woman. Delayed referral and inadequate intrapartum supervision continue to play a pivotal role in the preventable burden of maternal morbidity and mortality. Equally important is the need to educate communities about the importance of supervised antenatal care and institutional deliveries, which can significantly reduce delays and improve outcomes. The psychological and emotional consequences following an

obstetric hysterectomy must also be acknowledged, as women may face profound grief associated with the abrupt loss of fertility and altered reproductive identity. This case highlights that clinicians must maintain a high index of suspicion for uterine rupture even in an unscarred uterus, as early recognition and timely intervention are critical to saving maternal lives.

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