# **Uterine Rupture In A Previous LSCS Scar With Associated Bladder Injury: A Case Report**

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## Abstract

Uterine rupture is a rare but life-threatening obstetric emergency, most often associated with a previous cesarean section scar. Maternal and fetal outcomes depend on timely diagnosis and surgical management. We present a case of a 33-year-old gravida 3, para 1, with a history of one previous lower segment cesarean section (LSCS), who presented in labor at 38+4 weeks and subsequently developed uterine rupture with bladder involvement. She underwent emergency laparotomy with uterine and bladder repair. This case highlights the importance of close intrapartum monitoring, early recognition of scar complications, and multidisciplinary surgical intervention.

**Keywords:** Uterine rupture, LSCS scar, bladder injury, maternal morbidity, VBAC

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### I. Introduction

Trial of labor after cesarean section (TOLAC) is increasingly encouraged in well-selected women due to the potential benefits of vaginal birth after cesarean (VBAC). However, the most feared complication remains uterine rupture, with incidence reported between 0.3–1% in VBAC attempts . Involvement of adjacent organs, such as the urinary bladder, is rare but adds to morbidity. Prompt diagnosis and surgical intervention are crucial to minimize maternal and perinatal mortality.

# **II.** Case Presentation

A 33-year-old woman, G3P1L1A1, presented at 38+4 weeks gestation to our hospital with complaints of spotting per vaginum and intermittent abdominal pain. She had a history of previous emergency LSCS six years ago for oligohydramnios with non-progressive labor.

On examination:

Vitals stable (BP 110/72 mmHg, PR 92/min).

Uterus term size, cephalic, good fetal heart rate. Pfannenstiel scar present, non-tender.

Bishop score: 5.

Investigations: Hb 11.7 g/dl, RBS 74 mg/dl.

# Provisional diagnosis:

G3P1L1A1 with 38+4 weeks, previous LSCS, in latent labor – for trial of VBAC.

### Labor course:

VBAC and high-risk consent obtained.

At 2:30 pm, fetal bradycardia with absent FHS was noted.

On examination: fetal parts easily palpable, uterine contour lost → suspected uterine rupture.

Patient shifted for emergency laparotomy.

# Intra-operative findings:

Baby and placenta were found in the peritoneal cavity (intrauterine rupture).

A 10 cm transverse rent in the bladder dome was noted, adherent to the anterior uterine wall.

Urology team called intraoperatively.

## Surgical management:

Uterine repair: double-layer closure with vicryl 1-0.

Bladder repair: single-layer closure with vicryl 2-0, peri-vesical fat approximated.

Drain kept in pouch of Douglas.

Estimated blood loss: 800 ml; 2 units PCV transfused.

Post-op: Foley's catheter (18 Fr) retained for 21 days per urology advice.

Postoperative course:

Broad spectrum antibiotics (Piperacillin-Tazobactam, Metronidazole).

Post-op labs: Hb 13.5  $\rightarrow$  dropped to 9.7 g/dl; TLC 29.2  $\rightarrow$  16.8; Platelets 251  $\rightarrow$  180.

Developed transient tachycardia and abdominal distension, managed conservatively.

Urology review continued with bladder care.

Started on high-protein diet and mirabegron for bladder rehabilitation.

## III. Discussion

Uterine rupture is a catastrophic event, with maternal mortality up to 5% and perinatal mortality as high as 74%. Risk factors include prior cesarean delivery, induction with prostaglandins, and short interpregnancy interval.

This patient, despite being well-selected for VBAC, experienced rupture at term with extension into the bladder, an uncommon but serious complication. Reported incidence of bladder injury with rupture is approximately 0.27–0.9% of all cesarean deliveries.

Prompt recognition, immediate laparotomy, and multidisciplinary teamwork (OBGYN + Urology) ensured survival. Bladder injuries, when repaired intraoperatively with adequate drainage, usually have favorable outcomes.

## IV. Conclusion

This case emphasizes the need for:

- 1. Vigilant monitoring during VBAC trials.
- 2. Early recognition of uterine rupture.
- 3. Multidisciplinary approach for complex injuries.
- 4. Counseling regarding future pregnancies elective cesarean is mandatory.

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