# Successful regional anesthesia for management of uterine rupture, emergent cesarean delivery, and massive postpartum hemorrhage

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## Patient

- 35yoF G2P1, Hx of CD for breech presentation, GERD, presenting at 40+2/7 weeks gestation with PROM

## HD 1: Admit to L&D for TOLAC

- HDS
- Augmentation w/ oxytocin
- Labor epidural x2 for inadequate analgesia

## HD 2: Crash C-section

- Cat 2 FHT, recurrent late decelerations → sudden prolonged fetal bradycardia, heavy vaginal bleeding, complete loss of fetal station
- OR for crash repeat C-section
- 3% chloroprocaine epidural bolus en route

## HD 2: OR Course

- Transiently non-responsive but regained consciousness
  - Breathing spontaneously + pulses present → supplemental O2 via facemask
- Surgical anesthesia confirmed
- Complete uterine rupture identified – fetus, placenta, approx. 2L blood within abdominal cavity
- Breech presentation
- Gyn Onc assistance given difficulty identifying anatomy and extensive bleeding
- Urology consult for repair of bladder dome cystostomy
- Products: 3u pRBCs, 1 FFP, 250cc 5% alb, 2L crystalloids
- QBL 3851cc

## Post-operative course

- Remained HDS
- Discharged on POD2 w/o complications
- Viable female infant had Apgar scores of 2 and 9, weighed 4,040 g

# Discussion

**Uterine rupture is a complete division of all three layers of the uterus and is a life-threatening complication associated with pregnancy**

## Differential Dx

- Spontaneous abortion
- Bloody show associated with normal labor
- Placenta previa
- Placental abruption
- Uterine rupture

## Risk Factors

- TOLAC
  - Risk is 15x higher with TOLAC compared to repeat CD
- Increased cesarean deliveries = increased risk
  - Rate of uterine rupture is approx 1% for women with one previous CD vs 3.9% for those with >1 previous CD
- Multiparity
- AMA
- Oxytocin infusion
- Connective tissue disorders
- Conditions that stretch myometrium beyond optimal range

# Teaching Points

## Why is this important?

- Rate of CD increasing over the past 5 decades
- Uterine rupture is expected to increase as the rate of CD increases

## Prevention

- Women at higher risk for uterine rupture should receive oxytocin judiciously

## Preoperative

- Prompt recognition of clinical symptoms
- Swift multidisciplinary coordination
- Well-functioning epidural for TOLACs
  - Rounding to assess adequate epidural fxn, proactive about replacement
  - Dense local anesthetic bolus via epidural without delay for C-section

## Intraoperative

- Massive transfusion standby
- Large bore IVs

## Post-operative

- Serial Hgb checks

## References:

Togioka BM, Tonismae T. Uterine Rupture. [Updated 2023 Jul 29]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK559209/