

BACKGROUND

- Uterine rupture - potentially catastrophic peripartum complication requiring decisive intervention by a multidisciplinary team + access to MTP
 - 21.1 vs 0.38 per 10,000 in women with prior CS vs unscarred uteri¹
 - 43.7% cases a/w abnormal placentation
 - 27% rate of cesarean hysterectomy²
- We report a case of uterine rupture and placenta accreta leading to cesarean hysterectomy with prolonged operative course managed successfully with neuraxial anesthesia

CASE REPORT

Presentation

- 35 y.o. F G3P2 at 32W with severe abdominal pain
 - OB Hx: 2 cesarean deliveries
 - Current pregnancy w/ complete placenta previa + accreta spectrum
- Stat CT – hemoperitoneum + possible uterine rupture
- Hemodynamically stable + category 1 FHR tracings

Plan

- Multidisciplinary intervention - OB, Anesthesia, Urology and Gen Surg
- Immediate surgical delivery with planned hysterectomy

Anesthetic

- CSE
 - **12mg hyperbaric Bupivacaine; 15mcg Fentanyl; 100mcg Morphine; 5mcg Dexmedetomidine**
- Maintenance via sequential epidural boluses
 - **Lidocaine 2%, Bupivacaine 0.5%, and Dexmedetomidine**
- IV sedation (post delivery)
 - **Midazolam; Dexmedetomidine**

Intraoperative Course

- Ureteral stent placement prior to delivery
- Surgical delivery (APGAR 8/9)
- 3 cm uterine rupture along lower uterine segment + 500 mL hemoperitoneum
- Hysterectomy c/b bladder injury and massive hemorrhage
- MTP activation: **6U PRBC, 6U FFP, 1U platelets, 10U cryoprecipitate**
- Phenylephrine titrated at 15-50 mcg/min, stopped by end of case
- EBL **5243 mL**
- Duration **7 hours**

Postoperative Course

- Planned ICU transfer
- Hemodynamically stable off pressors
- First requiring breakthrough pain medication 20h after spinal
- Uneventful recovery
- Downgraded on PPD 4, discharged home 2 days later

DISCUSSION

- Highlights the importance of timely multidisciplinary intervention
- Demonstrates ability to provide safe, successful, prolonged neuraxial anesthesia even in extreme circumstances
 - Careful preparation and close titration to effect
 - Adequate resuscitation
- Potential for prolongation of neuraxial block with addition of intrathecal and epidural dexmedetomidine to local anesthetic
 - Prolongation of both motor and sensory block by >2h
 - Delay to first analgesic request by 3-4h³

References

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2. Sharon N, Maymon R, Pekar-Zlotin M, Betser M, Melcer Y. Midgestational pre-labor spontaneous uterine rupture: a systematic review. *J Matern Fetal Neonatal Med*. 2022 Dec;35(25):5155-5160. doi: 10.1080/14767058.2021.1875435. Epub 2021 Mar 10. PMID: 33691570.
3. Liu S, Zhao P, Cui Y, Lu C, Ji M, Liu W, Jiang W, Zhu Z, Sun Q. Effect of 5-µg Dose of Dexmedetomidine in Combination With Intrathecal Bupivacaine on Spinal Anesthesia: A Systematic Review and Meta-analysis. *Clin Ther*. 2020 Apr;42(4):676-690.e5. doi: 10.1016/j.clinthera.2020.02.009. Epub 2020 Mar 25. PMID: 32222361.