

# Anesthetic Management of the Reduction of an Incarcerated Gravid Uterus Through a Ventral Hernia

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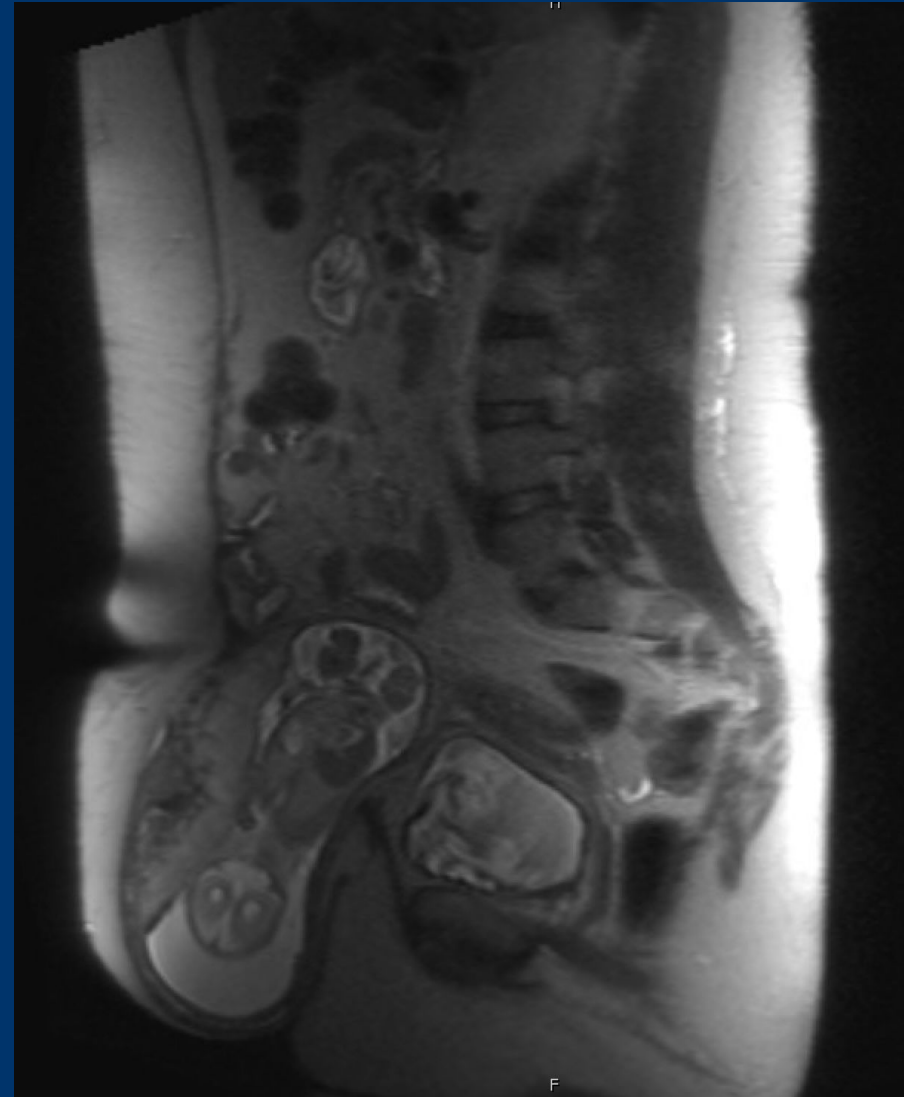
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## Patient Background:

- 35 year old female G6P2213 with a history of prior cesarean delivery
- At 18w1d she presented with an incarcerated ventral hernia containing her gravid uterus
- This posed significant risks including both maternal organ compromise and potential fetal demise
- The selection of an optimal anesthetic plan was critical to balancing the safety of both the mother and the fetus while addressing procedural requirements
- Few case reports have been published on this presentation, however none describe the anesthetic management<sup>1-3</sup>. Here we discuss those considerations.

# Case Presentation

- The patient was evaluated by a multidisciplinary team
- Decision was made to perform external manual reduction under spinal anesthesia, limiting fetal exposure to general anesthesia
- Contingency plan to escalate to GETA was in place
- Spinal anesthesia at L3/L4 using 1.4 mL of 0.75% hyperbaric bupivacaine, 10 mcg fentanyl, 200 mcg epinephrine to achieve a T5 sensory block
- Sufficient muscle relaxation and pain control was achieved to allow for successful manual reduction
- At 35 weeks the patient underwent repeat C-section with concurrent ventral hernia repair without complications



# Conclusion

This case demonstrates the effective use of spinal anesthesia for reducing an incarcerated gravid uterus. A stepwise approach starting with spinal anesthesia and escalating to GETA, only if necessary, optimized the safety for both the mother and fetus.

## Key Takeaways

- Spinal anesthesia provided adequate muscle relaxation and analgesia while minimizing fetal exposure
- A clear escalation plan ensured preparedness for surgical intervention
- Multidisciplinary collaboration between obstetrics, surgery and anesthesiology facilitated optimal outcomes
- Conservative approaches can prevent unnecessary interventions

## References

1. Lewellen, K. A., Maatman, T. K., & Zyromski, N. J. (2024). Incarcerated Gravid Uterus in an Incisional Ventral Hernia: What to Do?. *Journal of gastrointestinal surgery : official journal of the Society for Surgery of the Alimentary Tract*, 28(3), 329–330. <https://doi.org/10.1016/j.gassur.2023.12.027>
2. Qadir, S., Malik, S., & Iftikhar, N. (2023). Incarcerated Gravid Uterus In Ventral Hernia. *Journal of Ayub Medical College, Abbottabad : JAMC*, 35(1), 169–173. <https://doi.org/10.55519/JAMC-01-11054>
3. Chin, X., Li, D., Copertino, N., & Caleo, P. J. (2022). A rare case of an incarcerated incisional hernia with gravid uterus. *Journal of surgical case reports*, 2022(12), rjac571. <https://doi.org/10.1093/jscr/rjac571>