

Effectiveness of Neuraxial Morphine Re-Dose for Patients with Placenta Accreta Spectrum Undergoing Cesarean Hysterectomy Sabrina Antonio MD, Elsie Bigelow MD, Rodney Gabriel MD, Erin Martin MD

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Background and Hypothesis

- Much attention has been paid to perioperative management of patients with \bullet placenta accreta spectrum (PAS) as they are complicated cases with increased risk of maternal morbidity and mortality.
- Recently, there has been growing interest in the psychological aftermath and \bullet recovery from cesarean hysterectomy (C-Hyst), including pain, post-traumatic stress disorder, anxiety, and depression.
- Acute postoperative pain has been shown to impact these maternal outcomes in cesarean delivery (CD) but less has been published for C-Hyst.
- For patients with PAS undergoing C-Hyst, we previously compared functional recovery in patients receiving lumbar combined spinal epidural (CSE) to thoracic epidural and lumbar single spinal anesthetic (double-stick, DS), with underwhelming outcomes for the DS group.
- We hypothesize a re-dose of neuraxial morphine 24 hours after initial CSE may offer non-inferior functional outcomes while eliminating the procedural risk of the DS.



Placenta accreta spectrum



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Study Design and Methods

• Aim: compare the association of three cohorts with postoperative opioid consumption (MME POD 0-2), hospital length of stay (LOS), time to ambulation (days), and average pain scores on POD0, POD1, and POD2





- For each outcome, the median was compared across the three cohorts using Analysis of Variance (ANOVA).
- To control for potential confounders, a multivariable linear regression was performed to measure the association of the cohorts with each outcome. P-value < 0.05 was considered statistically significant.





Results





Multivariable Linear Regression

When controlling for multiple confounders using linear regression:

- Group 2 was associated with a 105mg decrease in MME during POD0-2 (P= 0.03)
- Group 3 was associated with a 0.96 increase in days for time to ambulation (P = 0.009)
- Group 2 was associated with a 2.9 decrease in average pain scores in POD1 (P= 0.04)

Confounders:

Placenta accreta spectrum grade, age, BMI, GP status, gestational age, preeclampsia, hypertension, diabetes mellitus/gestational diabetes mellitus/insulin use, bleeding disorder, prior cesarean deliveries, English speaking, hemoglobin, platelets, case duration



Discussion

Conclusion

- C-hyst for PAS performed under CSE with a re-dose of epidural morphine at 24h provided non-inferior functional recovery compared to CSE without epidural morphine re-dose and to the double-stick group.
 - Overall benefits: may improve postoperative pain in this highrisk population, avoids risk of 2nd neuraxial procedure
 - Potential risks: may impact anticoagulation management, pruritis, nausea/vomiting, respiratory depression, increased nursing demands
- There is a paucity of data for approaches to postoperative pain management in patients with PAS. This case series evaluates the practice at a single institution.

Limitations Lack of standardized protocols Small sample size Tol ID, Yousif M, Collins SL. Post traumatic stress disorder (PTSD): The psychological sequelae of abnormally invasive placenta (AIP). Placenta. 2019 Jun;81:42-45. doi: 10.1016/j.placenta.2019.04.004. Epub 2019 Apr 16. PMID: 31138430; PMCID: PMC6544169. Einerson BD, Gilner JB, Zuckerwise LC. Placenta Accreta Spectrum. Obstet Gynecol. 2023 Jul 1;142(1):31-50. doi: 10.1097/AOG.0000000005229. Epub 2023 Jun 7. PMID: 37290094; PMCID: PMC10491415.



