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Background

- Perineal lacerations complicate most vaginal deliveries
- Can significantly impact postpartum recovery
- Previous studies suggest increased opioid requirements with severe lacerations
- Pain outcomes with scheduled multimodal analgesia remain unclear

Aim

 Examine relationship between perineal laceration severity and postpartum pain management





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Methods

- Retrospective cohort study (January 2019 October 2023)
- Single institution
- 14,477 vaginal deliveries analyzed
- Context: Scheduled acetaminophen and NSAIDs
- Primary outcome: Proportion requiring postpartum opioids





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Results

- Distribution: No tears (26.9%), 1st/2nd degree (69.0%), 3rd/4th degree (4.0%)
- Opioid requirements:
 - 3rd/4th degree: 19.4% required opioids (RR 1.63, p<0.001)
 - 1st/2nd degree: 7.5% required opioids
 - No tears: 10.4% required opioids
- Time to first request: Shortest in 1st/2nd degree (1.3h vs 1.7-1.8h)
- Opioid doses: Higher in 3rd/4th degree at 24-48h (15mg vs 7.5mg morphine equivalents)
- Pain scores: Consistently higher in 3rd/4th degree throughout first 72h



Mean pain scores in patients with no perineal tears (1a), first and second degree tears (1b), and third and fourth degree tears (1c) over the first 96 hours postpartum. Box plots represent the distribution of pain scores at four time intervals (0-24, 24-48, 48-72, and 72-96 hours) after vaginal delivery. The boxes indicate the interquartile range (IQR) with the median represented by the horizontal line. Whiskers extend to 1.5 times the IQR, and individual points beyond the whiskers represent outliers.





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Conclusions

- Despite scheduled multimodal analgesia, severe perineal lacerations lead to:
- Significantly higher opioid requirements
- Consistently higher pain scores
- Greater analgesic needs in the 24-48h period

Implications

- Need for enhanced pain management strategies
- Closer monitoring for patients with severe lacerations
- Consider targeted interventions for this high-risk group





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