

Analysis of Incisional Intradermal Bupivacaine vs. Liposomal Bupivacaine TAP Block for Postoperative Pain Control in Bariatric Surgery

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Introduction

- Local wound injection is widely used as postoperative pain control method
- This study evaluates the impact of TAP block with Exparel compared to incisional bupivacaine infiltration on postoperative pain and analgesic requirements.

Methods

- Performed using data from patients at a single institution undergoing robotic assisted laparoscopic (RAL) vertical sleeve gastrectomy, RAL Roux-en-Y gastric bypass or a RAL revision of a previous bariatric surgery.
- Controls received incisional infiltration with bupivacaine.
- Current patients prospectively received an Exparel TAP block.
- Primary outcomes measured were postoperative pain scores including day of surgery (DOS) and postoperative day 1(POD1).
- Additional outcomes measured included PRN postoperative opioid use converted to morphine milligram equivalents (MME) and categorical pain assessment at clinic follow-up (None, Mild, Medium, Severe).
- Independent t-tests were applied to all outcomes.

Results

- Total of 198 patients were analyzed to date (Bupivacaine n=74, TAP n=124).
- Mean pain scores were not significantly different between groups at any timepoint:
 - DOS (6.3 vs 6.4, p=0.63)
 - POD1 (4.9 vs 4.9, p=0.85),
 - overall average (5.6 vs 5.8, p=0.51).
- Postoperative opioid use was also similar:
 - morphine (6.3 mg vs 5.5 mg, p=0.26),
 - hydromorphone (0.15 mg vs 0.09 mg, p=0.51)
 - hydrocodone/acetaminophen (14.8 ml vs 15.2 ml, p=0.88).
- Total MME showed no significant difference (29.4 vs 26.2, p=0.42).

Conclusion

- Interim analysis demonstrates no significant differences in pain scores or postoperative opioid consumption between patients receiving intraoperative incisional bupivacaine injection versus Exparel TAP block. Continued data collection is needed to clarify whether TAP blocks present a benefit in bariatric surgery pain management.

