

Preoperative Gabapentin in Laparoscopic Sleeve Gastrectomy Does Not Decrease Intraoperative or Postoperative Opiate Use or Length of Stay

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Background

- 350-400 laparoscopic vertical sleeve gastrectomies (LVSG) annually
- High outlier for:
 - All cause readmissions
 - LVSG-related readmissions
- 25% of readmissions were pain-related
- Robust ERAS protocol in place (Table 1)
- Does addition of gabapentin to Bariatric ERAS pathway lead to decreased opiate use, decreased readmissions, and earlier discharges?

	Preoperative	Intraoperative	Postoperative	Discharge
Standard Pathway	Acetaminophen 1 g PR	0.25% bupivacaine with epinephrine	Acetaminophen PO Dilaudid PCA→ Oxycodone po Ketorolac 15 mg IV q8 hr*	Acetaminophen 650 mg q8r Ibuprofen 600 mg q8 hr Oxycodone 5-10 mg pm
Modified Pathway	Gabapentin 600 mg PO		Gabapentin 300 mg PO BID Oxycodone po only	

*Begin POD 1, if no evidence of bleeding and if no baseline renal insufficiency

Table 1. Standard and modified ERAS protocols. The modified protocol included gabapentin pre- and post-operatively.

Methods

- Retrospective, quantitative study of 155 patients
- Compared patients who did not receive gabapentin (n=64) to those who did (n=91)
- Primary outcomes:
 - Intraoperative fentanyl use
 - Intraoperative total opiate use
 - Postoperative in-hospital opiate use
 - Length of stay
 - ED visits
 - Readmissions

Results

- Less intraoperative fentanyl use in patients who received preoperative gabapentin (247 vs 275 mcg, Δ27.9 mcg, p=0.049)
- No difference in total intraoperative or postoperative opiate use in morphine equivalents (Figure 1)
- Average length of stay was 1.25 days, unchanged between groups
- No difference in readmissions or ED visits (Table 2)

	Total ED visit (%)	ED visit for pain (%)	Total Readmission (%)	Readmission for pain (%)
No gabapentin (n=91)	1 (1.1)	1 (1.1)	4 (4.4)	1 (1.1)
Gabapentin (n=64)	11 (17)	5 (7.8)	6 (9.4)	1 (1.5)

Table 2. Number and percentage of total and pain-related ED visits and readmissions. Addition of gabapentin to the ERAS pathway did not alter these.

Conclusions

- No measurable clinically significant change in our endpoints
- Gabapentin remains a part of our ERAS pathway preoperatively
 - Discontinued postoperative use
- Dramatic improvements to outcomes via ERAS modifications hard to come by and a resource intensive

Figure 1. Intraoperative and postoperative opiate use in morphine equivalents in standard vs. modified (+gabapentin) ERAS pathways. There is no difference.

