Efficacy of Perioperative Aprepitant Compared to Haloperidol as Part of a Multimodal ERABS Model for PONV Prophylaxis: Early Experience from a High Volume Bariatric Center of Excellence

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Introduction

- The evolution of Enhanced Recovery After Bariatric Surgery (ERABS) protocols has led to decreased perioperative complications and improved patient outcomes.
- Given the multiple agents available and lack of clear recommendations regarding PONV prophylaxis, the development of cost effective treatment strategies without sacrificing patient outcomes is necessary.

Purpose

- A previous retrospective institutional review determined that patients receiving IV Haloperidol as part of a PONV prophylaxis regimen (with Scopolamine patch, Aprepitant 40mg PO and Dexamethasone 4mg IV) reported lower incidence of PONV and decreased length of stay.

Scan to access Lam et al. "Perioperative use of Haloperidol..."

- In an effort to reduce cost, we seek to identify whether Aprepitant containing regimens were more effective at reducing PONV compared to those only containing Haloperidol.

Methods

- Retrospective chart review, single community hospital from January 2020-March 2023
- Inclusion criteria: Patients undergoing minimally invasive sleeve gastrectomy or gastric bypass per standard institutional ERABS pathway (n= 505)
- Statistical analysis with t-test and ANOVA testing

Results

Aprepitant and Haloperidol achieve comparable efficacy in improving postoperative PONV outcomes and decreasing LOS.

	No Aprepitant or Haloperidol (n= 400)	Aprepitant (n= 51)	Haloperidol (n= 54)	p-value
Average LOS (hours)	39.79	29.95	29.77	< 0.001
Complication Rate	6.75% (n= 27)	3.92% (n= 2)	5.56% (n= 3)	0.09
Incidence of PON	53.75% (n= 215)	26.79% (n= 15)	37.04% (n= 20)	0.002
Incidence of POV	19.53% (n= 42)	1.79% (n= 1)	12.96% (n= 9)	0.001

Patients who received Aprepitant were less likely to vomit, despite a similar incidence of nausea and overall antiemetic requirement.

	Aprepitant (n= 51)	Haloperidol (n= 54)	p-value
Incidence of POV	**1.79%** (n= 1)	**12.96%** (n= 9)	**0.02**
Incidence of PON	26.79% (n= 15)	37.04% (n= 20)	0.25
Required > 2 doses of Ondansetron	39.22% (n= 20)	37.04% (n= 20)	0.47
Required Rescue Antiemetic	17.65% (n= 9)	31.37% (n= 16)	0.09

400 patients received standard ERABS PONV prophylaxis (Scopolamine patch, Dexamethasone 4mg IV, Ondansetron 4mg IV)

54 patients received standard ERABS + Haloperidol 2mg IV

51 patients received standard ERABS + Aprepitant 40mg PO

Discussion/Conclusion

- Use of at least four antiemetics perioperatively appears to be most successful at significantly decreasing incidence of PONV and reducing LOS
- Incidence and severity of nausea is not significantly improved with Aprepitant, though less patients experience emesis
- Our results are limited by a single hospital setting and the retrospective nature of our study
- Consideration should be given to cost effective care and use of Haloperidol in multimodal PONV regimens, particularly in areas where Aprepitant and other NK1 antagonists may not be available

References and Author Contact Card

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