Saint Luke's HEALTH SYSTEM

Impact of Postoperative Scheduled Antiemetic Regimen on Length of Stay in Sleeve Gastrectomies

Barbara Nguyen, MD; Anthony H Tabatabai, DO; Kensey Gosch, MS; Michael D Arroyo, MD

KANSAS CITY, MISSOURI

BACKGROUND

- The most common expected postoperative complication of sleeve gastrectomies is nausea and vomiting (PONV). [1]
- Inadequate nausea control can result in insufficient oral intake and dehydration, leading to extended hospital stays, readmissions, and exhausting multimodal antiemetic regimens.
- The American Society of Metabolic and Bariatric Surgery (ASMBS) recommends pretreatment, including an "around the clock" antiemetic.[2]

PURPOSE

- Our retrospective study reviewed hospital length-of-stay (LOS) for patients receiving as needed antiemetics (PRN group) versus those with scheduled medications (scheduled group) for laparoscopic sleeve gastrectomies.
- By initiating a scheduled antiemetic regimen, a prophylactic approach to anticipated PONV could lead to a shorter hospital stay.

METHODS

- Patients receiving a laparoscopic sleeve gastrectomy by a singular surgeon between September 2017 and October 2019 were included in the study.
- In December 2018, the protocol of postoperative management was changed to include the following:
  - Intravenous dexamethasone 4mg the morning of postoperative day (POD) 1
  - Sublingual hyoscyamine 0.125mg every six hours
- Patients prior to December (PRN group) had a variety of antiemetics to choose from as needed for nausea, including ondansetron, prochlorperazine, and metoclopramide.
- Patient variables—age, body mass index (BMI) at time of surgery, gender, and significant comorbidities (i.e. diabetes mellitus, cardiac history)—were documented.
- Length of stay, need for antiemetics, and emergency department visits within thirty days were compared.

RESULTS

- Both groups had 22 patients, comparable in gender, age, and average BMI.
- Length of stay was significantly shorter in the scheduled group, 1.1 +/- 0.4 days, versus the PRN group at 1.9 +/- 0.7 days (P<0.001).
- One patient in each group returned to the emergency department for dehydration.

	Mean +/- SD		
	PRN (n = 22)	Scheduled (n = 22)	P-Value
Gender: F	18 (81.8%)	19 (86.4%)	
M	4 (18.2%)	3 (13.6%)	1.000
Age	44.1 ± 11.1	38.8 ± 10.1	0.102
BMI	44.2 ± 5.2	43.6 ± 5.3	0.665
Diabetes	2 (9.1%)	2 (9.1%)	1.000
Length of Stay	**1.9 ± 0.7**	**1.1 ± 0.4**	**< 0.001 W**

Continuous variables compared using Student's T-test. Categorical variables compared using chi-square or Fisher's exact test, except as noted: W = Wilcoxon rank-sum test)

CONCLUSIONS

- The biggest limitation to this study is sample size. Additionally, the results are reflective of only one surgeon and study site.
- The addition of one IV dose of steroid and scheduled sublingual hyoscyamine demonstrated a significant decrease in hospital stay.
- Our scheduled regimen suggests better recovery for patients, as well as decrease in hospital costs for both hospital and patients. We would recommend implementation at other facilities.

REFERENCES

1. English WJ, DeMaria EJ, Hutter MM, et al.; American Society of Metabolic and Bariatric Surgery 2018 estimate of metabolic and bariatric procedures performed in the United States. Surgery for Obesity and Related Dseases, 2020,16:457-463.
2. Telem DA, Gould J, Pesta C, et al.; American Society of Metabolic and Bariatric Surgery: care pathway development for laparoscopic sleeve gastrectomy. Surgery for Obesity and Related Diseases, 2017,13:742-749.