

An aerial night view of a city, likely Mexico City, featuring a large, illuminated circular monument in the foreground. The city lights are visible in the background, and the sky is dark. The image is overlaid with a dark, semi-transparent hexagonal pattern.

Aprepitant in the management of
postoperative nausea and vomiting after sleeve
gastrectomy

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Guidelines for Perioperative Care in Bariatric Surgery: Enhanced Recovery After Surgery (ERAS) Society

Recommendations: A 2021 Update

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ANESTHESIA &
ANALGESIA



Fourth Consensus Guidelines for the Management of Postoperative Nausea and Vomiting

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very stressful experience
marked annoyance
significant discomfort

- Torpid evolution
- Herniation of the sleeve to the hiatus
 - Esophageal tear
- Increases intragastric pressure and tension on the staple line, causing bleeding and leakage

Prolonged hospital stay
Readmissions
Higher costs of care

METHODS

Objective: to determine the impact of Aprepitant on the improvement of PONV during the first 24 hours after surgery.

Double-blind randomized controlled trial

December 2022 - January 2023

INCLUSION

- 18 – 65 years old.
- Non smokers.
- BMI > 35 kg/m².
- Underwent laparoscopic gastric sleeve.

400

Metoclopramide 10mg
Dexamethasone 8mg
Ondansetron 8mg

EXCLUSION

- Documented hypersensitivity to any component of the study regimen.
- Drug or alcohol abuse.
- Chronic nausea and vomiting.
- Previous bariatric procedures.

RHODES SCORE

Retching without vomiting	7 or more	5 – 6	3 – 4	2 – 1	No
Retching distress	Severe	Great	Moderate	Mild	No
Nausea or sick to my stomach	>6hr	3– 6 hr	2– 3 hr	<1hr	No
how many times felt nauseated	7 or more	5 – 6	3 – 4	2 – 1	No
Nausea distress	Severe	Great	Moderate	Mild	No
Vomiting	7 or more	5 - 6	3 – 4	1 - 2	No
Amount of vomiting	Very large (+ 3 cups)	Large (2-3 cups)	Moderate (½ -2 cups)	Small (< ½cups)	Did'nt throw up
Vomiting distress	Severe	Great	Moderate	Mild	No

EVALUATION

0

6

12

24

METHODS



2 Hours before surgery

BASELINE DEMOGRAPHIC, ANTHROPOMETRIC AND COMORBIDITY ANALYSIS

	Control (n=199)	Aprepitant (n=201)	Total (n=400)	<i>P value</i>
Women	186 (93.5%)	190 (94.5%)	376 (94%)	0.554
Men	13 (6.5%)	11 (5.5%)	24 (6%)	0.554
Age (years)	39 ± 9.78	37 ± 9.7	38 ± 9.83	0.758
Weight (kg)	116.46 ± 21.73	116.73 ± 24.22	116.59 ± 22.99	0.667
Height (m)	1.67 ± 0.07	1.65 ± 0.1	1.66 ± 0.12	0.116
BMI (kg/m ²)	42.01 ± 7.29	42.22 ± 8.73	42.12 ± 8.04	0.938
Diabetes	25 (12.5%)	31 (15.4%)	56 (14%)	0.43
Hypertension	40 (20.1%)	37 (18.4%)	77 (19.2%)	0.781

SURGICAL OUTCOMES

	Control	Aprepitant	Total	<i>P value</i>
Surgical time (min)	43 ± 13.34	46 ± 14.57	44 ± 14	0.954
Surgical bleeding (ml)	23.5 ± 13.6	19.9 ± 15.8	22.1 ± 19.2	0.628
Oral intake restart (hours)	5.7 ± 3.3	5.5 ± 3.8	5.6 ± 2.9	0.591
Length of stay (days)	1.9 ± 0.07	2.1 ± 0.02	2 ± 0.03	0.734
Complications	4 (2%)	2 (1%)	6 (1.5%)	0.587

EARLY POSTOPERATIVE (0 HRS)

	Control	Aprepitant	<i>P value</i>
Number of patients with retching	23 (11.6%)	9 (4.5%)	0.001
Retching without vomiting	2.2	1.5	0.001
Distress by retching	23 (11.6%)	9 (4.5%)	0.04
Number of patients with nausea	103 (51.7%)	69 (34.3%)	0.001
Number of times with nausea	2.2	1.8	0.001
Distress by nausea	100 (50.2%)	66 (32.8%)	0.002
Mild	10	8	0.04
Moderate	10	1	0.04
Severe	3	0	0.04
Number of patients with vomiting	5 (2.5%)	3 (1.5%)	0.02
Number of vomit	2	1	0.02
Distress by vomiting	5 (2.5%)	3 (1.5%)	0.383
Rescue medication	86 (43.2%)	61 (30.3%)	0.008

6 HOURS POSTOPERATIVE

	Control	Aprepitant	<i>P value</i>
Number of patients with retching	39 (19.6%)	18 (8.9%)	0.03
Retching without vomiting	2.6	1.6	0.03
Distress by retching	39 (19.6%)	18 (8.9%)	0.016
Number of patients with nausea	131 (65.8%)	67 (33.3%)	0.001
Number of times with nausea	3.78	2.73	0.001
Distress by nausea	131 (65.8%)	67 (33.3%)	0.001
Mild	70	41	0.001
Moderate	51	24	0.001
Severe	2	1	0.001
Number of patients with vomiting	18 (9%)	6 (3%)	0.02
Number of vomit	2.27	1.66	0.02
Distress by vomiting	18 (9%)	6 (3%)	0.01
Rescue medication	34 (17%)	7 (3.5%)	0.001

12 HOURS POSTOPERATIVE

	Control	Aprepitant	<i>P value</i>
Number of patients with retching	22 (11%)	7 (3.5%)	0.02
Retching without vomiting	2.3	1	0.02
Distress by retching	22 (11%)	7 (3.5%)	0.014
Number of patients with nausea	115 (57.8%)	41 (20.4%)	0.001
Number of times with nausea	3.9	3.6	0.001
Distress by nausea	115 (57.8%)	41 (20.4%)	0.001
Mild	67	27	0.001
Moderate	38	10	0.001
Severe	4	0	0.001
Number of patients with vomiting	17 (8.5%)	2 (1%)	0.006
Number of vomit	2.5	1	0.006
Distress by vomiting	17 (8.5%)	2 (1%)	0.004
Rescue medication	31 (15.6%)	6 (3%)	0.001

24 HOURS POSTOPERATIVE

	Control	Aprepitant	<i>P value</i>
Number of patients with retching	9 (4.5%)	4 (2%)	0.13
Retching without vomiting	2.1	1	0.13
Distress by retching	9 (4.5%)	4 (2%)	0.35
Number of patients with nausea	67 (33.7%)	22 (10.9%)	0.001
Number of times with nausea	3.9	2	0.001
Distress by nausea	67 (33.7%)	22 (10.9%)	0.001
Mild	51	15	0.001
Moderate	12	6	0.001
Severe	4	1	0.001
Number of patients with vomiting	6 (3%)	1 (0.5%)	0.04
Number of vomit	1.5	1	0.04
Distress by vomiting	6 (3%)	1 (0.5%)	0.04
Rescue medication	11 (5.5%)	5 (2.5%)	0.01

RESULTS

The cumulative **incidence of nausea and vomiting** in the Aprepitant group compared to the traditional regimen (**1.5% vs. 5.7%**) with a **2.1 and 3.8 times lower probability** of nausea and vomiting, respectively.

CONCLUSION

Aprepitant

presents evidence of **high efficacy compared to the traditional multimodal scheme** in the prevention of postoperative vomiting in bariatric surgery
shows a clear medical benefit in the discomfort associated with symptoms and economic benefit by reducing the need for rescue medications.

There seems to be no difference in the dose of 80mg versus 125mg.



THANK YOU FOR YOUR TIME

