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Patient-Reported Outcomes After Antrum Resection Versus Antrum Preservation in Laparoscopic Sleeve Gastrectomy

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The Future of Obesity Management:
From Weight Loss to Health Gain



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Disclosure Slide

☒	No, nothing to disclose
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Why does antral size matter?

- Laparoscopic sleeve gastrectomy (LSG) is among the most common bariatric procedures worldwide.
- Optimal distance from pylorus remains controversial.
- Two common techniques:

Antrectomy	Antrum Preservation
Transection 2 cm from pylorus	Transection 5–6 cm from pylorus



Study Aim

- To compare weight loss, complications, metabolic outcomes, and patient-reported outcomes between the two techniques.



Methods	
Design	Retrospective cohort study
Period	2019–2023
Patients	157 primary LSG patients
Groups	Antrectomy (n=83) vs Preservation (n=74)
Technique	Transection at 2 cm vs 5–6 cm from pylorus
Outcomes	BMI, %TWL, complications, PROMs
Analysis	Multivariable regression adjusted for age, sex, and surgeon



Surgical technique:

Antrectomy	Antrum Preservation
Start 2 cm from pylorus	Start 5–6 cm from pylorus
36 Fr bougie	36 Fr bougie
Same leak test	Same leak test
Same reinforcement strategy	Same reinforcement strategy



BASELINE CHARACTERISTICS

Variable	Antrectomy	Preservation
N	83	74
Age	36 yrs	37 yrs
Female	52%	70%
BMI	47.4	44.3
HbA1c	6.5	6.1



WEIGHT LOSS OUTCOMES

Table 2: Comparison of weight post-op between antrectomy and antrum preserving

Outcome	Time point	Antrectomy (Mean±SD)	Antrum Preservation (Mean±SD)
BMI	3 months	38.60±8.03	37.11±7.33
BMI	6 months	32.62±6.39	32.49±5.34
BMI	12 months	30.67±7.59	30.85±5.45
BMI	18 months	28.90±6.86	30.44±5.58
%TWL	1 year	34.3%	30.6%
%TWL	18 months	40.6%	31.8%

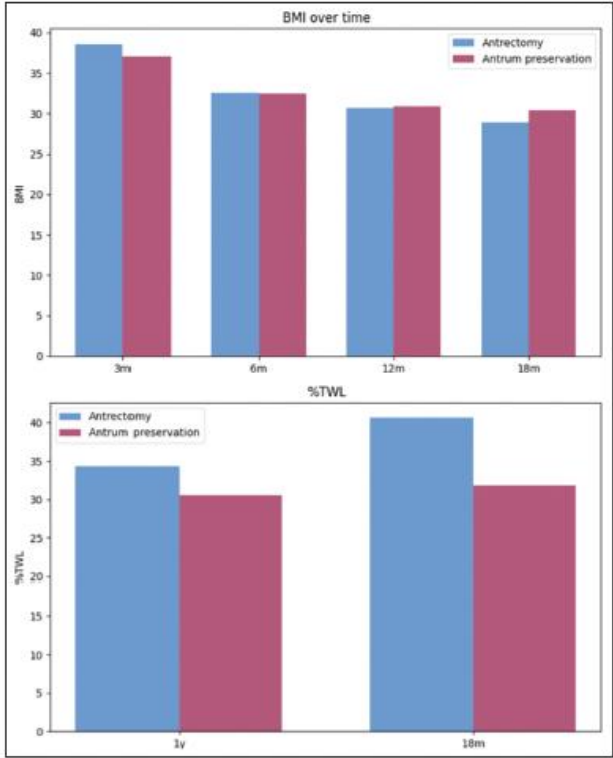


Figure 1: Comparison of weight post-op between antrectomy and antrum preserving



COMPLICATIONS

Table 3: Postoperative outcomes and Postoperative complications

Outcome	Antrectomy <i>n</i> (%)	Antrum Preservation <i>n</i> (%)	<i>P</i>
Weight regain	2 (2.4%)	6 (8.1%)	0.151
Insufficient weight loss	7 (8.5%)	7 (9.5%)	0.840
ER visits <30 days	11 (13.4%)	7 (9.5%)	0.440
Readmission <30 days	6 (7.2%)	1 (1.4%)	0.121
ICU admission	4 (4.8%)	1 (1.4%)	0.371
Mortality (30-day)	1 (1.2%)	0 (0%)	1.000

Complication	Antrectomy <i>n</i> (%)	Antrum Preservation <i>n</i> (%)	<i>P</i>
Any complication	8 (9.6%)	1 (1.4%)	0.036
Staple-line leak	2 (2.4%)	0 (0%)	0.498
Bleeding	3 (3.6%)	1 (1.4%)	0.622
Dysphagia	1 (1.2%)	0 (0%)	1.000
Pulmonary embolism	1 (1.2%)	0 (0%)	1.000
Surgical-site infection (SSI)	1 (1.2%)	0 (0%)	1.000
Mortality (30-day)	1 (1.2%)	0 (0%)	1.000



DISCUSSION

Main Findings

- ✓ Similar BMI reduction
- ✓ Similar %TWL
- ✓ Similar metabolic outcomes
- ✓ More nausea with preservation
- ✓ More psychological distress with antrectomy
- ✓ Significantly more complications with antrectomy

Interpretation

Preserving a larger antrum may:

- Maintain gastric pump function
- Reduce distal pressure
- Lower leak risk

without compromising weight loss.



Conclusion:

- Both techniques achieve comparable medium-term weight loss.
- Antrum preservation demonstrated a superior safety profile.
- Antrectomy was associated with:
 - Higher complication rates
 - All recorded leaks
 - Greater psychological burden

Clinical Implication

Antrum preservation (5–6 cm from pylorus) may represent the preferred routine LSG approach.

Future Work

Prospective multicenter studies with long-term follow-up are needed



Thank you

