Gastric Per Oral Endoscopic Myotomy shows largest improvement with nausea, retching, and loss of appetite

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INTRODUCTION

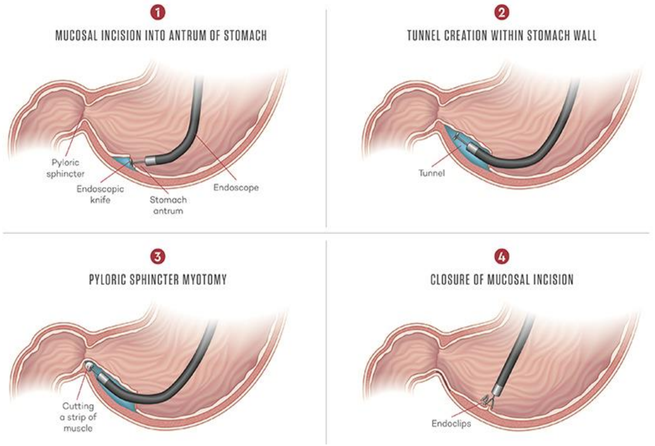
BACKGROUND

- Our study looked at the gastric per oral endoscopic myotomy (GPOEM), which is a procedure used to relieve gastroparesis
- Gastroparesis is defined as delayed gastric emptying due to a non-mechanical obstruction, that usually presents with nausea, vomiting, fullness and bloating

PURPOSE

The goal of this study was to provide better prognostics for patients undergoing GPOEM procedure

GPOEM PROCEDURE



RESULTS

Table 1. Descriptive Summary statistics for GCSI and GES score

	Overall (N=54)	P-value
Preop GCSI		
N	54	
Mean (SD)	26.5 (7.0)	
Median (Q1, Q3)	28.0 (21.5, 32.0)	
Postop GCSI		
N	54	
Mean (SD)	16.1 (9.1)	
Median (Q1, Q3)	15.5 (10.0, 23.8)	
Change in GCSI		<0.001
N	54	
Mean (SD)	-10.4 (8.6)	
Median (Q1, Q3)	-10.0 (-17.0, -5.0)	
Preop GES (% retained @ 4 hrs)		
N	54	
Mean (SD)	43.2 (25.4)	
Median (Q1, Q3)	40.0 (23.0, 50.0)	
Postop GES (% retained @ 4 hrs)		
N	34	
Mean (SD)	20.2 (21.6)	
Median (Q1, Q3)	14.0 (4.2, 32.2)	
Change in GES		<0.002
N	34	
Mean (SD)	-27.1 (30.3)	
Median (Q1, Q3)	-24.5 (-37.8, -8.2)	

Table 2. Modeling changes in individual items from preop to postop

Characteristic	β	95% CI[1]	p-value
Loss of appetite			
Preop	0.00	—	
Postop	-1.6	-2.0, -1.1	<0.001
Nausea			
Preop	0.00	—	
Postop	-1.5	-1.9, -1.1	<0.001
Belly visibly larger			
Preop	0.00	—	
Postop	-1.4	-1.9, -0.84	<0.001
Vomiting			
Preop	0.00	—	
Postop	-1.3	-1.7, -0.85	<0.001
Bloating			
Preop	0.00	—	
Postop	-1.3	-1.7, -0.78	<0.001
Retching			
Preop	0.00	—	
Postop	-1.2	-1.7, -0.74	<0.001
Stomach fullness			
Preop	0.00	—	
Postop	-1.1	-1.6, -0.64	<0.001
Fullness after eating			
Preop	0.00	—	
Postop	-0.94	-1.4, -0.49	<0.001

[1]CI = Confidence Interval; β = regression estimate

- 148 patients underwent GPOEM
- 54 patients had both pre-GPOEM and post-GPOEM Gastroparesis Cardinal Symptom Index (GCSI)
- 34 of those patients also had pre-GPOEM and post-GPOEM Gastric Emptying Studies (GES)
- Follow up was collected on average 2.07 months post-GPOEM

METHODS

- Gastroparesis Cardinal Symptom Index (GCSI) is used to assess symptoms subjectively
- Patients included only if pre-op and post-op GCSI complete
- Four-hour gastric emptying studies (GES) also collected

CONCLUSIONS

- All patients reported significant improvement in all categories of the GCSI
- GSCI reduced 10.4 points post-GPOEM, and GES reduced 27.1% post-GPOEM
- Statistical analysis showed a regain in appetite by 1.6 points, a decrease in nausea by 1.5 points, and belly looking flatter by 1.4 points
- Our study demonstrates that not all symptom scores improve equally, and being able to communicate this could give a patient more accurate expectations for GPOEM results

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For further questions/comments please contact Kartik Akkihal at Kartik.Akkihal@BSWHealth.org

There are no conflicts of interest to disclose