

Endoscopy used as provocative testing in bariatric surgery: an analysis of the Texas Public Use Data File

Benjamin Clapp MD, Evan Liggett MD, Christian Castro, Simon Montelongo DO, Kelsey Van Noy, Alan Tyroch MD
Department of Surgery, Texas Tech University Health Sciences Center El Paso, El Paso, Texas

INTRODUCTION

- The most common bariatric operations are the sleeve gastrectomy (SG) and laparoscopic Roux-en-Y gastric bypass (LRYGB)
- Many surgeons test the anastomosis and staple lines intraoperatively with some sort of provocative test
 - Air leak test with a nasogastric tube
 - Methylene blue dye
 - Endoscopy
- The State Department of Health Statistics in Texas tracks outcomes using the Texas Public Use Data File (PUDF)

METHODS AND PROCEDURES

- This is a retrospective review of a large state administrative database
- The Texas IPUDF and OPUDF for 2013-2017 were queried to examine the number of bariatric surgeries that had endoscopy performed at the same time
- Conducted one-way ANOVAs for patients who underwent
 - SG and endoscopies (SG+endo) from those who underwent LRYGB and endoscopies (LRYGB+endo)
 - SG and compared SG+endo to SG only
 - LRYGB and compared LRYGB+endo to LRYGB only
- Primary outcome of interest is number bariatric cases with concomitant endoscopy

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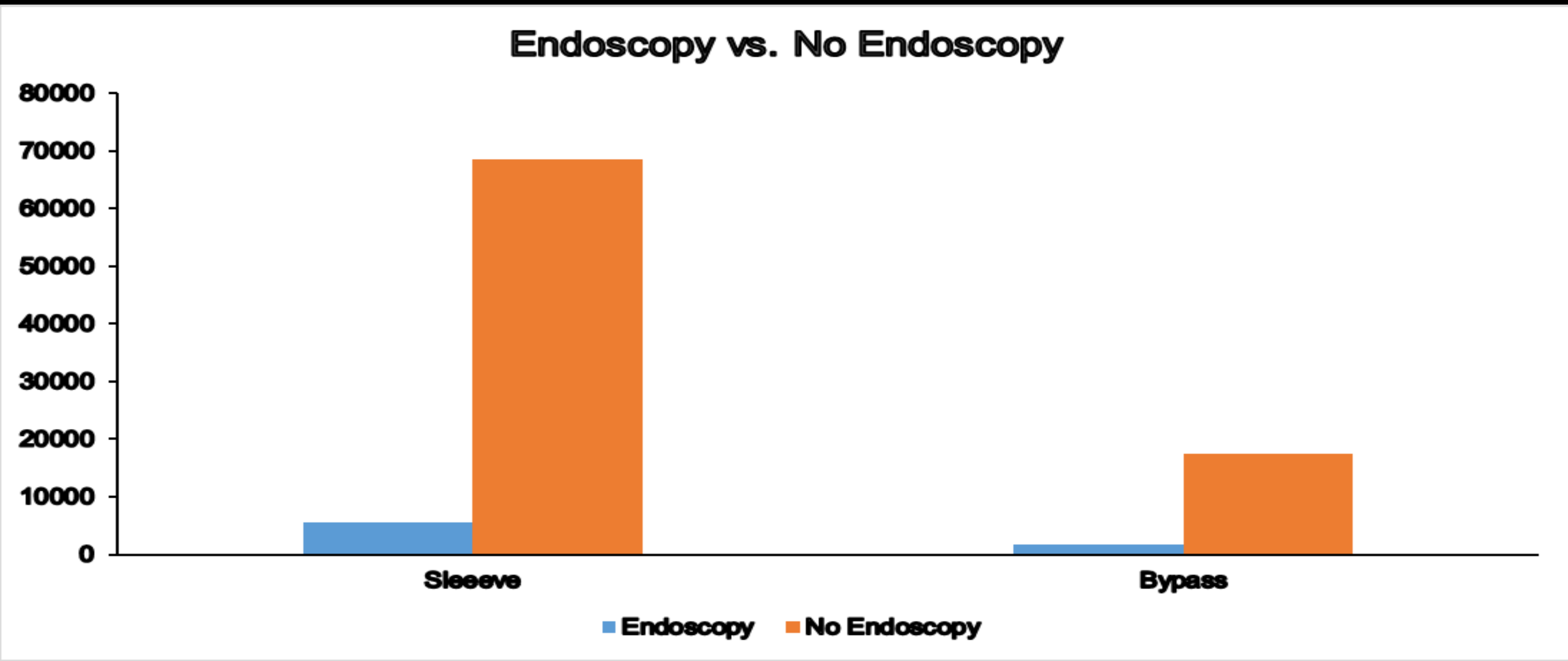
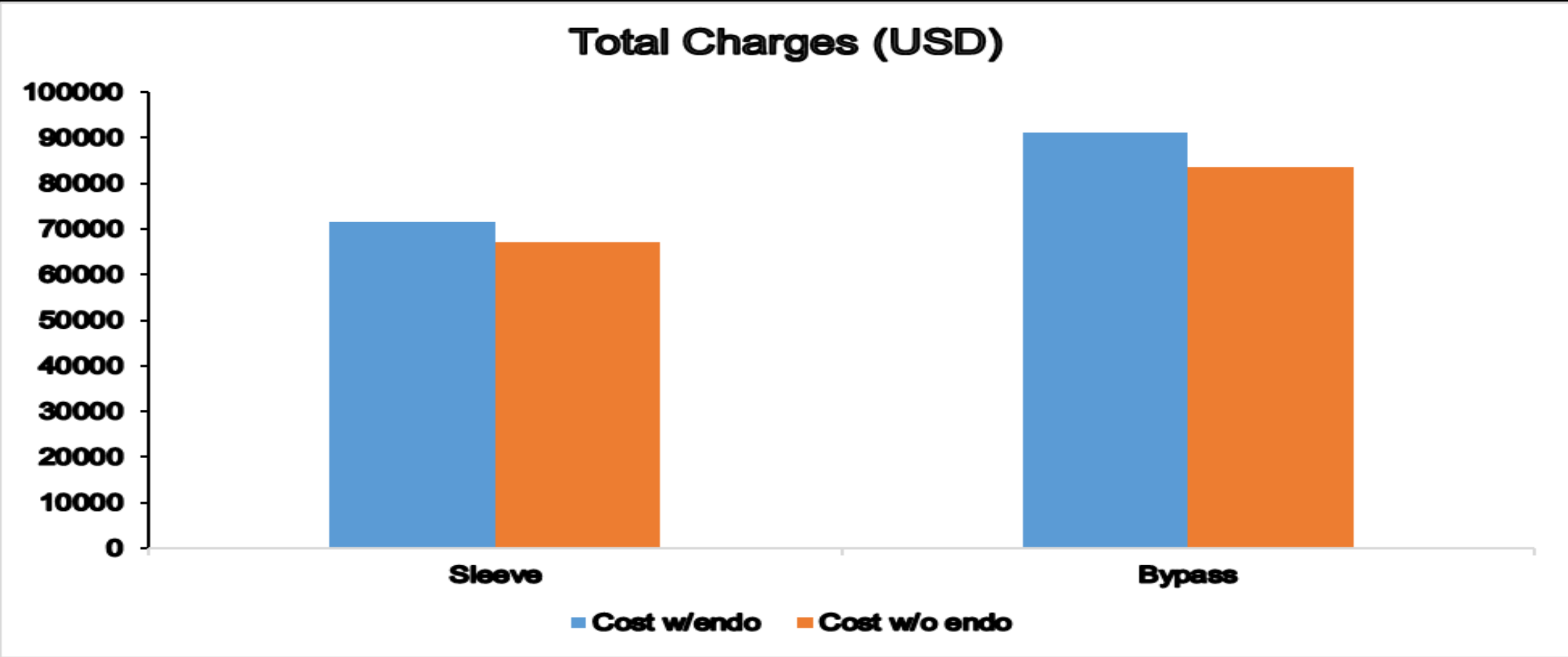
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RESULTS

- There were 74,075 SG reported in the Texas IPUDF and OPUDF for the years 2013-17
 - 5,521 (7.4%) of those cases had an intraoperative endoscopy
 - LOS was 1.74 days for those cases that had intraoperative endoscopy vs 1.81 days for those cases without (p = 0.006)
 - Mean total charges were \$71,686 for those cases that had intraoperative endoscopy vs \$67,045 for those cases without (p<0.001)
- There were 19,192 LRYGB reported in the Texas IPUDF and OPUDF for the years 2013-17
 - 1640 (8.6%) of those cases had an intraoperative endoscopy
 - LOS was 2.34 days for those cases that had intraoperative endoscopy vs 2.36 days for those cases without (p = 0.798)
 - Mean total charges were \$91,093 for those cases that had intraoperative endoscopy vs \$83,707 for those cases without (p<0.001)

		Endoscopy?		
Factor	Sleeve Cohort	Yes	No	p-value
N	74075	5512	68537	
Length of Stay, mean (SD)	1.81 (2.79)	1.74 (1.83)	1.81 (2.86)	0.006
Total Charges, mean (SD)	67390.06 (53767.34)	71685.76 (42322.62)	67044.65 (54569.02)	<0.001
Factor	Bypass Cohort	Yes	No	p-value
N	19192	1640	17552	
Length of Stay, mean (SD)	2.36 (3.63)	2.34 (2.71)	2.36 (3.69)	0.798
Total Charges, mean (SD)	84338.57 (80409.38)	91093.77 (65571.68)	83707.39 (81631.18)	<0.001



CONCLUSION

- Provocative testing during bariatric surgery is relatively rare in Texas and less than 10% of patients undergo endoscopy at the time of surgery
- No significant difference in LOS in the LRYGB vs the LRYGB+ endo
 - However, patients that underwent endoscopy had a significant increase in cost of \$9,462
- There was a statistically significant difference in LOS for the SG group
 - 1.74 vs 1.81 days in favor of the SG+endo group
 - Clinically significant?
 - Patients that underwent endoscopy had a significant increase in cost of \$4,641