

Pre-Screening for Bariatric Surgery Patients: Comparative Effectiveness of Transnasal Endoscopy versus Esophagogastroduodenoscopy

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Introduction

- Preoperative upper endoscopy screening for bariatric surgery has been shown to identify asymptomatic anatomic findings that could alter surgical planning.
- While esophagogastroduodenoscopy (EGD) has been the gold standard, transnasal endoscopy (TNE) has been recently described as an appropriate screening tool.

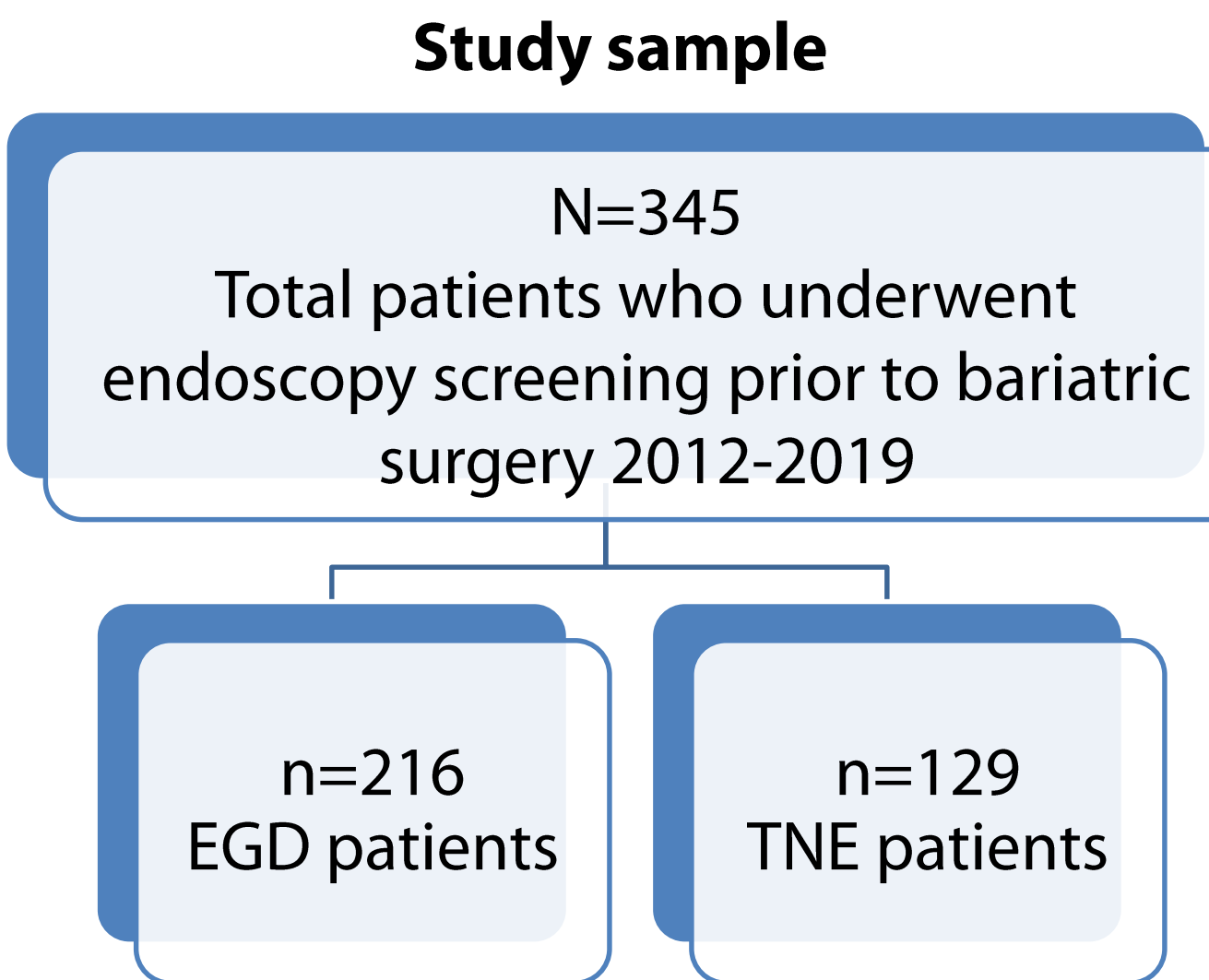
Objective

- The objective of this study was to evaluate the use of TNE for bariatric surgery screening in comparison to EGD.

Methods

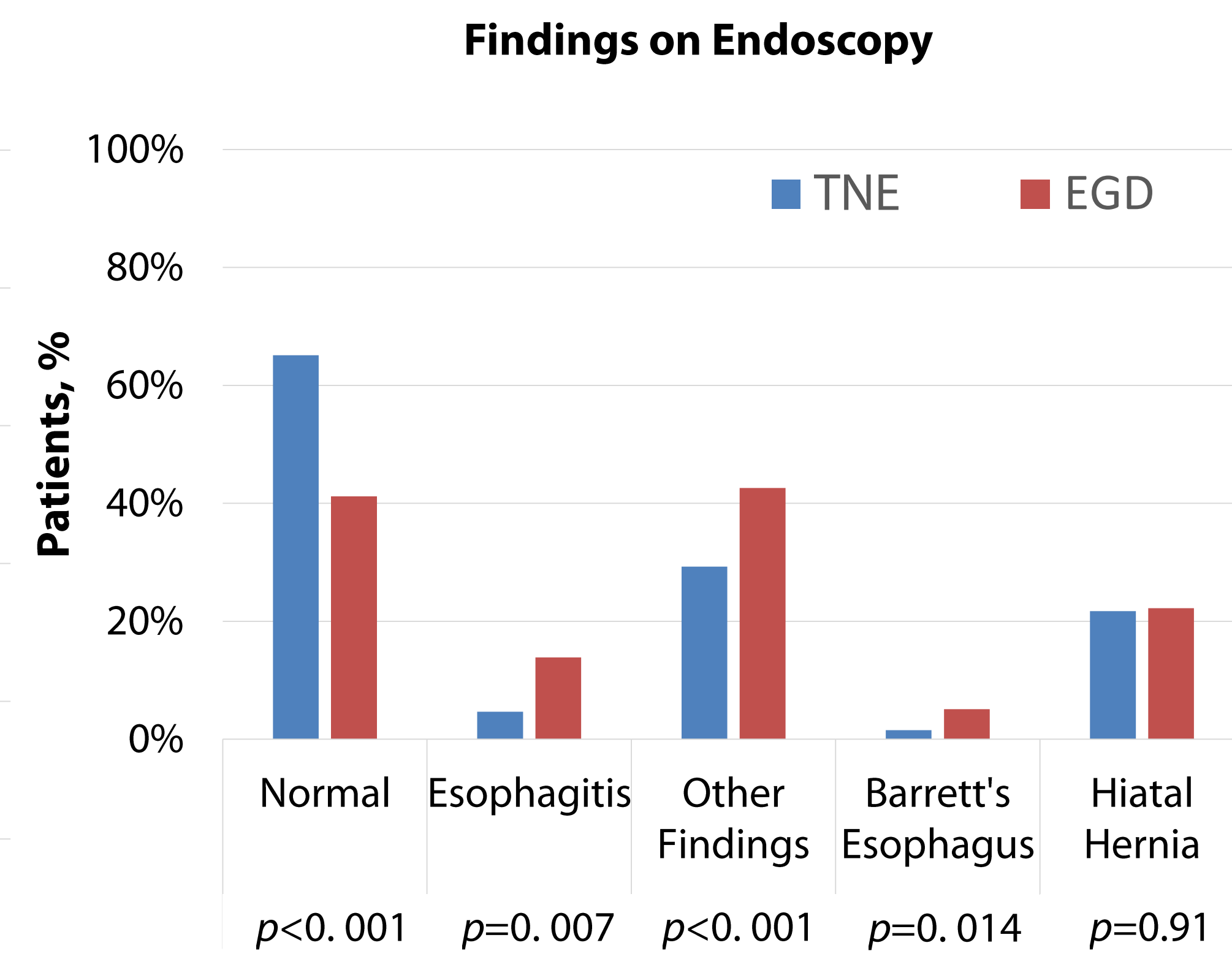
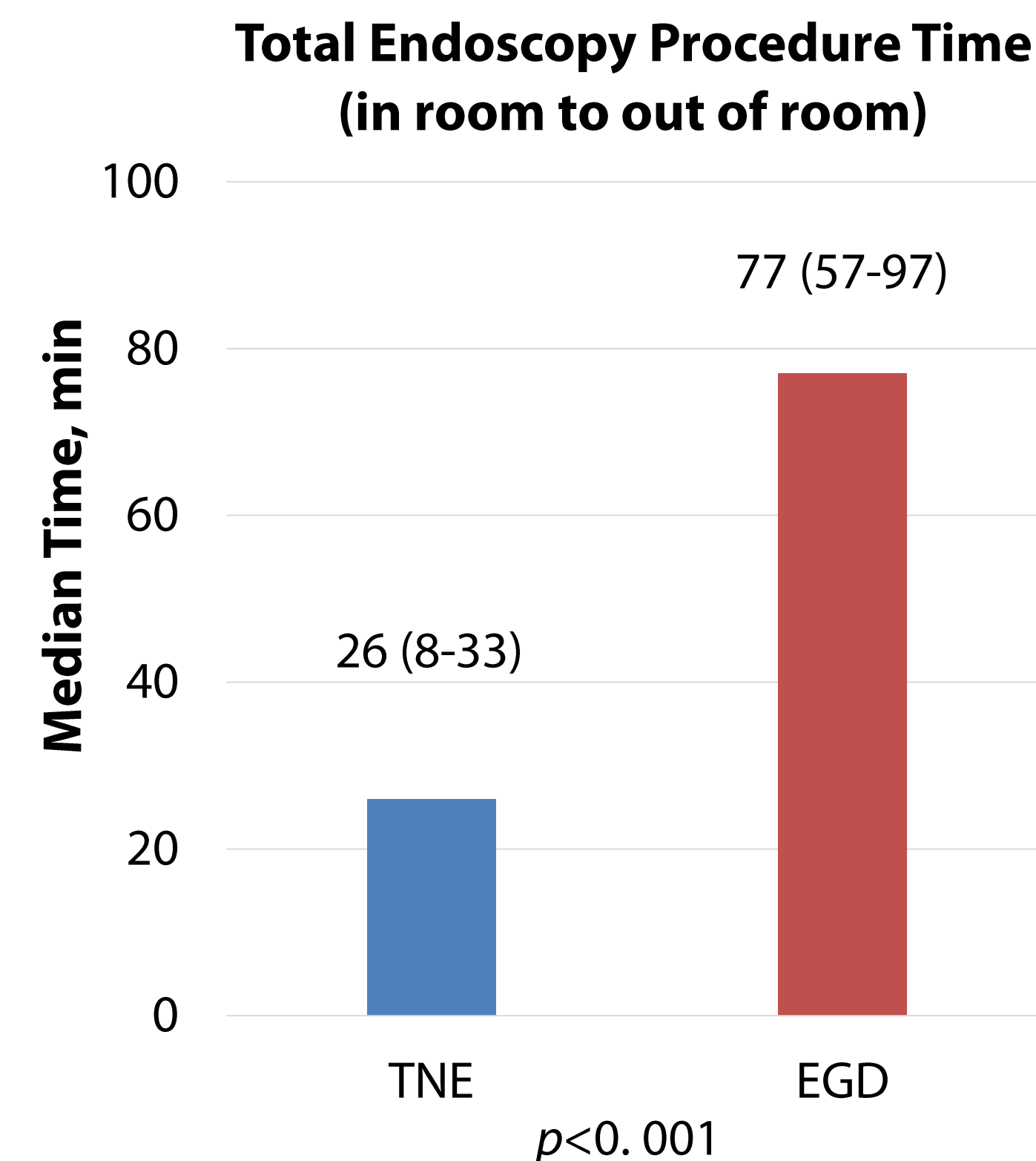
- An IRB approved, retrospective review of the medical records of patients who:
 - Underwent either Roux-en-Y gastric bypass or sleeve gastrectomy from January 1, 2012 through April 30, 2019.
 - Underwent preoperative screening with TNE or EGD.
 - Statistical analysis included χ^2 , Wilcoxon two-sample test, and Fisher's exact test. $p < 0.05$ was considered significant.

Results



Patient characteristics

Variable	Overall	TNE	EGD	P value
Mean Age (Years)	45.8 ± 11.9	46.2 ± 12.4	45.5 ± 11.6	0.58
Female Sex, n (%)	282 (82)	104 (81)	178 (82)	0.68
Mean Preoperative BMI, kg/m ²	45.9 ± 6.5	46.5 ± 7.1	45.5 ± 6.1	0.25
Tobacco Use, n (%)	147 (43)	56 (43)	91 (42)	0.82
Median GERD-HRQL Score	8.2 (0-69)	4.5 (0-63)	4 (0-69)	0.63



Outcomes

- 3 TNEs aborted
 - 98% reported success rate
- Change in care plan
 - TNE group: 1 patient required additional follow-up in ENT for nasopharyngeal polyp.
 - EGD group: 1 operation changed from SG to RYGB due to Barrett's esophagus, and 1 surgery postponed due to submucosal lesion.
- Of the patients who received an EGD, 1 (0.5%) patient visited the ER, and 7 (3%) patients called with concerns.
- There were no ER visits or nurse calls from patients who received a TNE.

Procedure charges

- Mean charge per patient for EGD and TNE was \$5,034.70 and \$1,464.00, respectively.

Conclusions

- TNE was associated with less post-procedure care, shorter procedure time and substantially fewer charges compared to EGD.
- TNE could be considered an initial screening tool for patients undergoing bariatric surgery, while EGD could be used selectively in patients with abnormal TNE findings.