Characterizing Comorbidities That Influence Hiatal Hernia Development Post-Bariatric Surgery

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INTRODUCTION

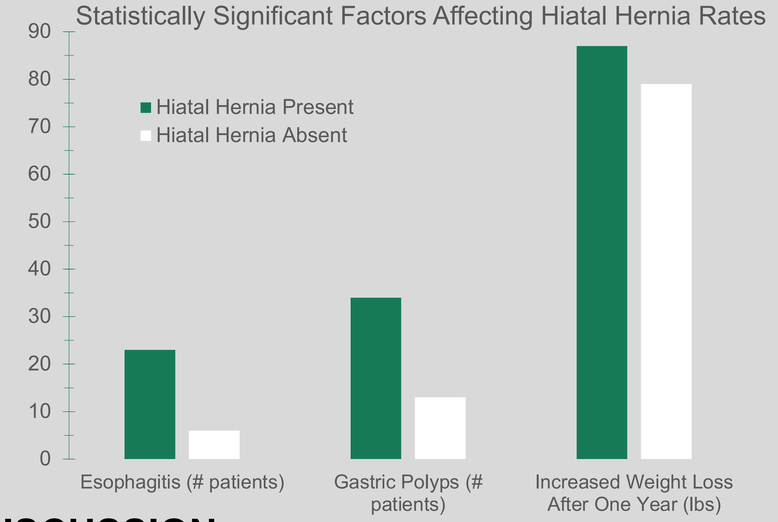
- Hiatal hernia (HH) is routinely reported in 40% of bariatric surgery patients[1]
- HH pathogenesis is not well understood, currently described in literature as multifactorial in nature[2]
- Purpose: characterize significant factors that are believed to increase HH rates[3]
- Hypothesis: patients with increased weight loss post-bariatric surgery will develop HHs at a lower rate

METHODS

- Retrospective cohort study with 559 patients who underwent esophagogastroduodenoscopy (EGD) in preparation for bariatric surgery
- HH prevalence based on EGD findings
- Chi-squared or Fischer's exact test investigated the association between patient, disease, operative-related attributes, and HH status
- Differences in distribution of continuous data were investigated utilizing the Mann-Whitney U test
- Univariate and multivariate regression analyses investigated the association between HH status and patient attributes

RESULTS

Patient Characteristics	
Mean Age (yrs)	44.3
Mean Body Mass Index (BMI)	48.8
Roux-en-Y Gastric Bypass (# patients)	291
Sleeve Gastrectomy (# patients)	260
Band Revision (# patients)	8
Hiatal Hernia (# patients)	317



DISCUSSION

- Gender, gastroesophageal reflux disease, obstructive sleep apnea, hypertension, number of hypertension medications, hyperlipidemia, insulin-dependent diabetes mellitus, osteoarthritis, six month and two year percent excess body weight loss, body mass index, and previous bariatric surgical history did not significantly impact HH status
- HH is common in the bariatric population, yet the exact etiology of HH is still under speculation[1,2]
- This study supports that post-bariatric surgery, HH status tends to be largely unrelated to many known comorbidities
- Type of bariatric surgery did not impact post-surgical HH rates, although it is commonly reported that SG patients have higher HH rates[4]
- An increased weight loss at one year was indicated as a protective factor for decreasing HH incidence
- This supports that patient weight loss encouragement post-operatively could be an effective method of potentially decreasing reflux symptoms

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Post-bariatric surgery, hiatal hernia status tends to be largely *unrelated* to many known comorbidities.
Important factors may include the presence of *esophagitis*, *gastric polyps*, and a greater amount of *weight loss* after one year.