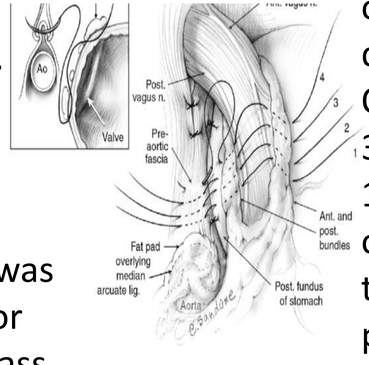
Hill gastroplasty for gastroesophageal reflux disease after bariatric surgery

Ryan Fairley DO, Kevin Reavis MD, Steven DeMeester MD, Valerie Halpin MD, Lee Swanstrom MD
Daniel Davila-Bradley MD, Christy Dunst MD
Legacy Health, Portland, OR, USA; The Oregon Clinic, Portland, OR, USA

Background:

Gastroesophageal reflux disease (GERD) persists or develops in many patients following bariatric surgery. With altered gastric anatomy, fundoplication is not a therapeutic option and prosthetic sphincter augmentation has not been FDA approved. The Hill anti-reflux procedure is an alternate treatment approach that anchors the gastroesophageal junction (GEJ) to the preaortic fascia using a series of sutures. The aim of this study was to evaluate early outcomes using the Hill repair in post bariatric patients suffering from GERD.



Methods:

A retrospective review was performed from 2014-2020 of patients who underwent Hill repair for GERD after bariatric surgery. GERD was defined as an abnormal pH test with a DeMeester score of >14.7, or endoscopic evidence of reflux disease(Barrett's esophagus or LA class C/D esophagitis). Data was collected from electronic medical records and included patient demographics, hospital records, and clinic visits. Patients were contacted by telephone interview clinical follow up and quality of life questionnaire.

Results:

Eighteen patients had a Hill repair during the study period; 17 females and one male. Previous bariatric surgery included: 12 roux-en-y gastric bypass, 4 sleeve gastrectomy, and 2 duodenal switch.
At the time of the Hill repair, 16 of 18 had a concurrent sliding or paraesophageal hernia repair. The average BMI was 33.5. All procedures were performed laparoscopically. There was no complications. Fifteen patients were available for follow up. Post operatively, 4 patients reported dysphagia treated with balloon dilation.
Quality of life follow up was obtained from 15 of 18 at an average of 32 months after surgery (2-80 months). The average HRQL score was 14.5(0-75). Nine were overall satisfied (HRQL 4-24) with their outcomes, three were neutral with their outcomes (HRQL 11-20), and three were dissatisfied (HRQL 3-48) with their outcome due to persistent symptoms.

Conclusions:

Medically refractory gastroesophageal reflux after bariatric surgery remains a challenging problem. Repair of co-existent hiatal hernia and Hill repair provides improved quality of life in most patients. Future endeavors with objective pH testing will further elucidate physiologic improvements.