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483. INTRAOPERATIVE EVALUATION OF HIATAL HERNIA SIZE AND CANDIDACY IN TIF ELIGIBLE PATIENTS
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Background: Transoral incisionless fundoplication (TIF) is gaining prominence in treatment of gastroesophageal reflux disease (GERD) for patients with absent or small hiatal hernia. As TIF gains popularity, appropriate patient evaluation and selection is paramount in establishing anatomical candidacy hence successful outcome. We evaluated patients who were intended to be treated with TIF and underwent a standard evaluation but instead underwent robotic hiatal hernia repair. We compared their preoperative evaluation of hernia size with intraoperative findings.

Methods: A cohort of seventy-six patients from a single-center database from January 2020 to March 2023 were retrospectively analyzed. All were deemed candidates for TIF based on our inclusion criteria (pH confirmation of GERD, hiatal hernia <2 cm) and underwent preoperative testing with
endoscopy, esophagram, pH and manometry. Twenty-seven of these patients either were denied TIF by their insurance company or had personal preference for surgery (daVIII) over endoscopic intervention and underwent robotic assisted paraesophageal hernia repair. We examined intraoperative measurements of hiatal hernia size and EG junction anatomy and compared them to standard preoperative evaluation.

Results: On pre-operative endoscopy 23 patients were found to have no hiatal hernia, 20 were found to have a small hernia, 3 a medium hernia, and 1 a large hernia. Esophagram evaluation demonstrated no hiatal hernia in 17 patients and a small hernia in 23 patients. The average hiatal hernia size seen during manometry was 0.54 cm (0–2 cm) while the average hernia seen intra-operatively was 3.26 cm (1.5–4.8 cm). There was a significant difference between preoperative hernia size evaluated by manometry and intraoperative hernia size (p-value 0.04).

Conclusion: Standard preoperative evaluation of patients intended to be treated with TIF appears to have a tendency to underestimate the size of hiatal hernia and omits evaluation of paraesophageal anatomy. This can lead to poor patient selection of failure of this treatment modality. Addition of cross-sectional imaging to the evaluation of patients with small hiatal hernias can facilitate a more meaningful therapeutic decision making for endoscopic, surgical, and combination treatment options.