

postoperative dysphagia who may ultimately benefit from pneumatic dilation or revisional surgery with Heller myotomy.

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Use of High Resolution Manometry

In reply to Siboni and colleagues

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We would like to start by thanking Siboni and colleagues for their insightful comments. We do agree that, as in so many other areas of benign surgery, the decision whether to do manometry and what response is most appropriate when it is abnormal has been historically controversial.

Our colleagues point out appropriately that the prevalence of esophageal manometric abnormalities in patients with giant paraesophageal hernias has been largely unknown. This was one of the major motivators for this study.¹ We take issue with the statement that this assessment is irrelevant as it must be acknowledged that the incidences of recurrent hernias, postoperative dysphasia, and, in fact, revisional operations are all higher in patients with paraesophageal hernias than they are with standard antireflux operations. With respect to the indication that the studies are difficult, we agree with our colleagues that endoscopy should be a standard component of initial work-up and, as we have stated in our manuscript, we typically place the high resolution catheter at the time

of preoperative endoscopy to make it more tolerable for the patient, but also to increase the accuracy of the placement of the high resolution manometric catheter in these patients with complex anatomy.

Our colleagues have indicated that the majority of centers do not use preoperative manometric assessment in patients with paraesophageal hernias. Like so many other issues, the size and presentation of paraesophageal hernias are variable, and we have continued to obtain these measurements because up to this time, no data had been available about the ramifications of abnormal or a manometric measurements done in the preoperative setting. Now that these data are available, we have modified our approach and have used preoperative manometric assessment only in patients who present with significant symptoms of dysphagia preoperatively, which we have shown in previous publications to be the case in up to 48% of patients.²

Our colleagues also indicate that they use a Toupet operation in the majority of their patients who present with these large hernias. We agree that the Toupet is an excellent procedure, but we also recognize that some of these patients with extremely large hernias, especially those with a history of esophagitis, stricture, or Barrett's, will have an increased tendency for short esophagus and therefore hiatal hernia recurrence, in which a Toupet operation may not be the best option. Other centers, such as the University of Pittsburgh, have used the Collis procedure. We typically use the Hill operation, which is the only operation predicated on anchoring the antireflux procedure within the abdominal cavity. The Hill operation is an outstanding approach to decrease the incidence of recurrence, but in the presence of a major motility issue such as achalasia or presbyesophagus, can have an increased incidence of dysphagia, which would cause us to modify our approach.

In summary, we agree with our colleagues' statement that the use of high resolution manometry in the preoperative setting for patients with large paraesophageal hernias has historically been controversial. We do believe that our study has provided some very useful clinical information, which has allowed us to modify our overall approach to these surgical procedures for the benefit of our patients.

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