General and Thoracic Trained Surgeons Have Similar Outcomes After Paraesophageal Hernia Repair

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Introduction

Paraesophageal hernias can be repaired by general surgeons (with or without minimally invasive fellowship training) and thoracic fellowship-trained surgeons

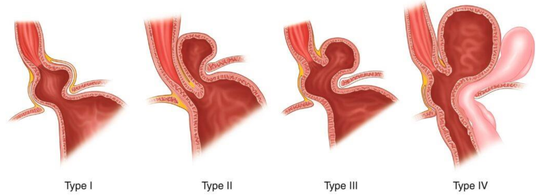
Aim: Identify differences in technique and outcomes in paraesophageal hernia repair between general (GS) and thoracic surgeons (TS)

Outcomes of Interest: 30-day GERD, 30-day Dysphagia, Recurrence, Reoperation

Methods

- Retrospective chart review 2010-2023
- Single tertiary care institution
- Comparison of PEH repairs by General / Minimally Invasive Surgery – fellowship trained surgeons and Thoracic surgeons

- Statistical Analysis:
  - Univariate: Chi squared or Fisher's exact, T-test



Results

Table 1. Comparison of Demographics and Operative Factors

	GS n = 988	TS n = 224	p-value
Age (IQR)	59.6 (46.9-69.2)	68.4 (57.2-76.7)	< 0.001
BMI > 30	654 (66.2%)	102 (45.5%)	< 0.001
Preoperative GERD	665 (67.3%)	118 (52.7%)	< 0.001
Preoperative Dysphagia	260 (26.3%)	71 (31.7%)	0.1
Hernia Sac Excision	154 (19.0%)	136 (70.8%)	< 0.001
Short Gastric Division	511 (61.4%)	157 (82.6%)	< 0.001
Use of Endostitch	354 (45.9%)	132 (81.0%)	< 0.001
Sutures in Posterior Diaphragm	739 (96.5%)	157 (95.7%)	0.65
Sutures in Anterior Diaphragm	254 (36.2%)	91 (60.7%)	< 0.001
Use of Mesh	106 (11.2%)	17 (8.2%)	0.2
Fundoplication Performed	368 (39.0%)	170 (80.6%)	< 0.001
Use of Bougie	411 (43.8%)	138 (67.0%)	< 0.001
Gastropexy Performed	201 (21.2%)	70 (33.3%)	< 0.001
EGD at End of Case	885 (93.7%)	118 (57.3%)	< 0.001

Table 2. Comparison of Complications and Outcomes

	GS n = 988	TS n = 224	p-value
30-day Complication	82 (8.5%)	12 (5.5%)	0.17
30-Day Readmission	42 (4.3%)	5 (2.2%)	0.18
Leak / Perforation	5 (0.5%)	0 (0%)	0.59
30-day GERD	92 (9.6%)	13 (5.9%)	0.082
30-day Dysphagia	66 (6.9%)	9 (4.1%)	0.13
Recurrence	143 (14.9%)	43 (19.5%)	0.097
Reoperation (all time)	57 (5.9%)	17 (7.7%)	0.34
Reoperation (1 yr)	21 (2.2%)	10 (4.5%)	0.061

Conclusion

- Thoracic surgeons more commonly utilized certain operative techniques: hernia sac excision, short gastric division, Endostitch use, anterior diaphragm sutures, fundoplication, bougie use, and gastropexy

- GS trended towards higher rates of GERD and Dysphagia while TS trended towards higher recurrence and 1-year reoperation rates

- General and Thoracic surgeons equally perform safe and effective PEH repairs