COMPARISON OF OUTCOMES OF PARAESOPHAGEAL HERNIA REPAIR BETWEEN GENERAL SURGEONS AND THORACIC SURGEONS

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Background:

Historically, paraesophageal hernia repairs have been performed by both general surgeons and thoracic surgeons, with variability between institutions and practitioners. With the advent of minimally-invasive transabdominal surgery, these repairs can typically be performed with low morbidity and shorter recovery. Thoracic surgeons may argue that greater familiarity with mediastinal anatomy confers better outcomes, while general surgeons argue greater facility with laparoscopy and transabdominal surgery is key. To date, there have been no studies comparing outcomes between the fields.

Methods:

The NSQIP public-use database was queried for all primary paraesophageal hernia repairs from 2015 to 2020. The data was stratified by surgeon subspecialty and postsurgical outcomes were analyzed by year.

Results:

30425 paraesophageal hernia repairs were captured between 2015 and 2020. General surgeons performed 28777 repairs, and thoracic surgeons performed 1648 repairs. Patient demographic factors were consistent between both groups. Rates of emergency surgery, mortality, surgical site infection, bleeding, MI, and readmission were equivalent between the groups. Between general and thoracic surgeons, the rate of return to OR trended toward significance (2.8 vs. 3.6, p=0.063), as did unplanned intubation (0.9 vs. 1.3, p=0.071). Cases performed by thoracic surgeons also showed a slightly higher rate of prolonged intubation (1.6 vs. 0.9, p=0.003).

Conclusions:

Overall, the outcomes of paraesophageal hernia repairs are equivalent between general and thoracic surgeons. It is possible that thoracic surgery has a higher incidence of larger hernias, however this is not clear from the NSQIP database. Also important to note is that the vast majority of repairs by thoracic surgeons are performed transabdominally. Among both groups of surgeons, the complication rate after paraesophageal hernia repairs is quite low.

Variable	Value	General Surgery	Thoracic	P-value
CPT Code	43281	17329 (60.2)	1036 (62.9)	0
	43282	9694 (33.7)	307 (18.6)	
	43332	1042 (3.6)	94 (5.7)	
	43333	535 (1.9)	36 (2.2)	
	43334	57 (0.2)	110 (6.7)	
	43335	18 (0.1)	29 (1.8)	
	43336	59 (0.2)	28 (1.7)	
	43337	43 (0.1)	8 (0.5)	
Clinical Status	elective	26154 (90.9)	1485 (90.1)	
	emergent	798 (2.8)	48 (2.9)	
	others	1825 (6.3)	115 (7)	
Reintubation	No	28526 (99.1)	1626 (98.7)	0.071
	Yes	251 (0.9)	22 (1.3)	
Failure to Wean Ventilator	No	28520 (99.1)	1621 (98.4)	0.003
	Yes	257 (0.9)	27 (1.6)	
Return to OR	No	27965 (97.2)	1588 (96.4)	0.063
	Yes	812 (2.8)	60 (3.6)	
DVT	Yes	127 (0.4)	13 (0.8)	0.066
	No	28650 (99.6)	1635 (99.2)	