Fundic Gastropexy for High Risk of Recurrence Laparoscopic Hiatal Hernia Repair and Esophageal Sphincter Augmentation (LINX) Improves Outcomes without Altering Perioperative Outcomes

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INTRODUCTION

The purpose of this study is to determine the variables that may predict an increased length of stay after repair of a hiatal hernia and effects of fundic gastropexy on the expected perioperative course. Our institution has protocolized the use of fundic gastropexy while performing laparoscopic hiatal hernia repair and esophageal sphincter augmentation(LINX) in patient's who are deemed a high risk for recurrence.

MATERIALS & METHODS

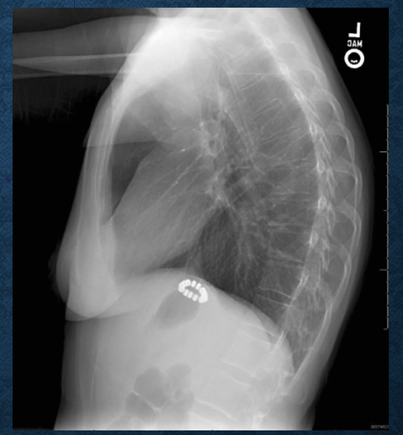
An IRB approved, single institution retrospective review of patient outcomes after hiatal hernia repair with magnetic sphincter augmentation was performed. Data was obtained from the electronic health record and stored REDCap database. Using statistical software the patient data was analyzed and stratified to assess the specific objective measures of perioperative course focusing on length of stay in the gastropexy and non-gastropexy groups.

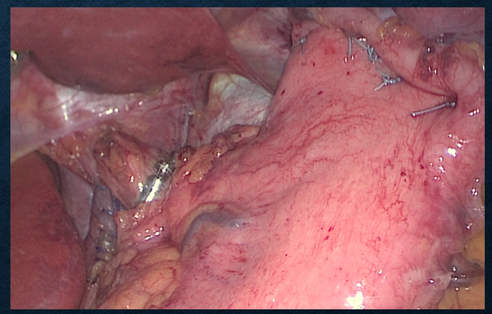
RESULTS

Paraesophageal hernia repair with magnetic sphincter augmentation was performed on 137 patients. Fundic gastropexy (N = 86) and non-gastropexy(N = 51) groups were compared and there was a difference observed with acute hernia recurrence, dysphagia **(p-value: 0.008),** and number of post-op EGDs **(p-value:0.005)** in favor of the gastropexy cohort. There was a total of two acute recurrences which occurred in the non-pexy group. Table 1 shows the comparisons of specific variables between the pexy and non-pexy groups. 52 of these operations were performed in patients over 65 years of age, 2 were done emergently, and 21 of the patients had previous foregut surgery.

	HRHR(%) (N = 86)	LRHR(%) (N=51)	P-value
Resolved Symptoms	100.0	98.0	0.422
Dysphagia	7.5	26.5	0.008
EGD Dilations	2.9	18.4	0.005
Post-operative PPI use	4.4	10.2	0.229
Length of Stay (Hours)	44	53	0.145
Acute Recurrence	0	4.3*	
Infection	0	0	

*Two patients in this cohort experienced acute recurrence requiring operative intervention





DISCUSSION

Fundic gastropexy for individuals who are considered high risk for recurrence does not appear to alter the perioperative course in our sample of patients. The study shows that when factors such as age of the patient and previous foregut surgery are controlled for, there is no significant difference in length of stay when comparing the two cohorts. This shows the benefit of gastropexy in conjunction with the improved dysphagia symptoms, decreased risk of acute recurrence and decreased need for postoperative EGD when compared to the non-pexy cohort.

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