Phasix-ST Mesh in Large Paraesophageal Hernia Repair May Decrease Early Hernia Recurrence

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Introduction

Hiatal hernia (HH) recurrence rates after large paraesophageal hernia (PEH) repair are as high as 50%. Crural reinforcement with mesh is controversial. The aim of this study was to evaluate safety, feasibility, and early outcomes of crural reinforcement with Phasix-ST mesh in patients with large PEH compared to repair without mesh.

Methods

A retrospective cohort study was performed of patients who underwent first-time laparoscopic or robotic PEH repair and fundoplication between 2016 and 2019 at three institutions. Group one underwent crural reinforcement with Phasix-ST, and group two underwent repair without mesh. Symptom control was measured using GERD health-related quality of life (GERD-HRQL) scores. Hiatal hernia recurrence was defined as any HH ≥ 2cm on post-operative video esophagram or upper endoscopy.

Results

85 patients with large PEH (≥5 cm) underwent PEH repair

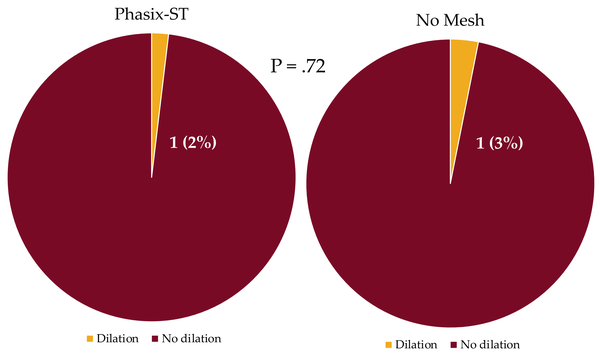
Preoperative characteristics	Phasix-ST (n=53)	No mesh (n=32)	p value
Age	68 ± 10	70 ± 14	0.38
Sex, male	17 (32%)	10 (31%)	0.94
Body mass index	29.2 ± 4.5	29.2 ± 5.7	0.94

Postoperative outcomes

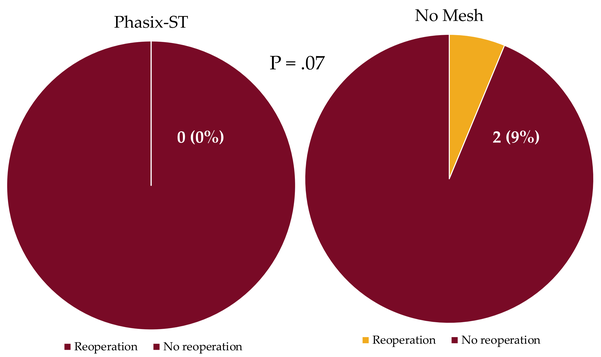
	Phasix-ST (n=53)	No mesh (n=32)	p value
Postoperative GERD-HRQL score	3.9 ± 1.9	8.0 ± 8.6	.08
HH recurrence ≥ 2cm*	1/22 (4.5%)	2/6 (33%)	**.04**

*Of patients with postoperative video esophagram or upper endoscopy.

Dilation



Reoperation



Summary of Results

- Hiatal hernia recurrence was significantly lower in the Phasix-ST group with objective follow-up at an average of 7 months
- No mesh related complications such as infection or erosion occurred
- Postoperative mean GERD-HQRL score and proportion of patients requiring dilation or reoperation were lower with use of Phasix-ST mesh, although not statistically significant
- This study is limited by the low number of patients with objective follow-up

Conclusion

Crural reinforcement with Phasix-ST mesh in large PEH repair is safe, feasible, and may decrease early hiatal hernia recurrence.