PARAESOPHAGEAL HERNIA REPAIR IN PATIENTS WITH A BMI >35: IS A COMBINED ROUX-EN-Y GASTRIC BYPASS AND PARAESOPHAGEAL HERNIA REPAIR A BETTER OPTION?

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Background

- Obesity is a risk factor for paraesophageal hernias, with reported higher prevalence in obese patients.
- Similarly, higher Body Mass Index (BMI) levels adversely affect paraesophageal hernia repair (PEHR) outcomes, with well-documented hernia recurrence rates in the obese.
- We hypothesize that in patients with a BMI > 35, combined laparoscopic PEHR with Roux-en-Y gastric bypass (LPEHR/ LRYGB) has a lower overall hernia recurrence rate, than LPEHR alone.

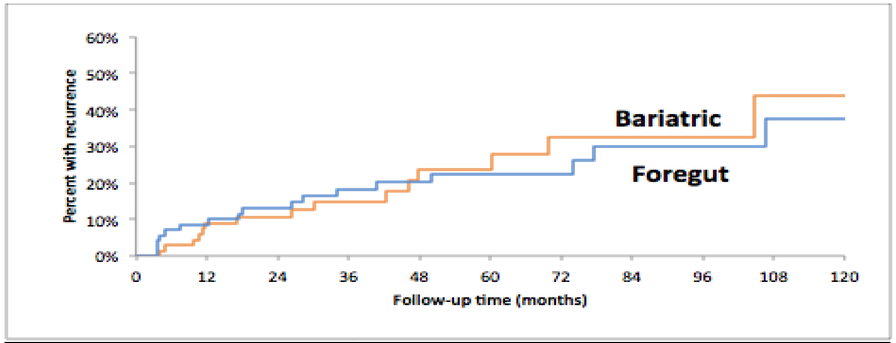
Objectives

- Primary Outcome: Assess PEH radiographic recurrence in patient population with BMI >35
- Secondary outcome: need for recurrent operative paraesophageal hernia repair in this population
- Further outcome measures:
  - Time to recurrence and need for re-intervention compared between matched groups using Kaplan-Meier estimates and a Log Rank test.

Methods

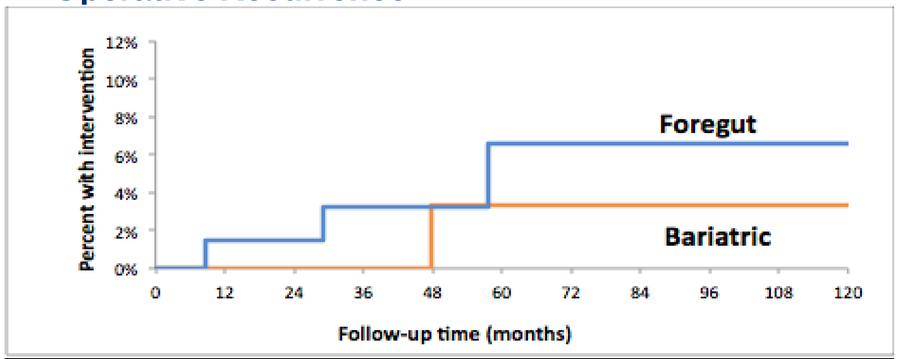
- A retrospective review of a prospectively maintained database from a single institute was reviewed from 1/1/2010 to 1/1/2020.
- All patients referred for paraesophageal hernia with a BMI > 35 were included.
- Patients with previous foregut surgery or concurrent weight loss surgery other than LRYGB were excluded.
- A propensity score was used to identify appropriately matched groups
- This resulted in a total sample of 160 (n=80 within each group)

Radiographic Recurrence



		Month of follow-up				
		12	24	36	48	60
Bariatric group	Recurrence rate (%)	8.9	10.8	15.0	23.7	23.7
	N in follow-up	55	46	34	26	17
Foregut group	Recurrence rate (%)	8.5	13.0	18.1	20.1	22.5
	N in follow-up	63	54	44	35	25

Operative Recurrence



		Month of follow-up				
		12	24	36	48	60
Bariatric group	Intervention rate (%)	0.0	0.0	0.0	3.3	3.3
	N in follow-up	59	48	37	29	22
Foregut group	Intervention rate (%)	1.4	1.4	2.2	2.2	2.2
	N in follow-up	67	60	48	38	28

Results

- A total of 307 patients underwent index LPEHR/ LRYGB (n=183) or LPEHR (n=124).
- Patients who underwent concurrent LPEHR/ LRYGB were significantly younger (51.6 compared to 64.3 years old, p<0.0001) and with a higher preoperative BMI (42.5 compared to 38.7, p<0.0001).
- Median follow up after concurrent LPEHR/ LRYGB was 34 months compared to 49 months following LPEHR.
- There was no statistically significant difference in perioperative overall recurrence or recurrence requiring re-intervention between both overall population and the propensity matched groups.
- In the non-matched group, LPEHR requiring intervention approached significance (log rank p-value=0.192)

Key Findings

- In patients with BMI >35 combined LPEHR/ LRYGB can be performed with equivalent radiographic and operative recurrent rates as compared to LPEHR alone.

Conclusion

- Combined LPEHR/ LRYGB can be performed with equivalent recurrent rates as compared to LPEHR.
- Given the metabolic benefits of LRYGB, further long-term studies are needed to investigate the clinical significance of combined LPEHR/LRYGB surgery in patients with BMI > 35.

References:

- 1. Shada A, et al. *SOARD* 2017
- 2. Perez AR, et al. *Surg Endosc*. 2001
- 3. Hefler J, et al. *SOARD.* 2019

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