Recurrence After Primary Hiatal Hernia Repair: Outcomes and Risk Factors

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Background

- Symptomatic recurrences after laparoscopic hiatal hernia repair and fundoplication have been estimated at 30%.
- Previous literature associates reoperation for hiatal hernia repair with longer operating times, higher mortality, and increased complication rates.
- Our aim: Evaluate outcomes in laparoscopic primary and redo hiatal hernia repair.

Methods

- Method: Retrospective Review
- Inclusion Criteria: Primary hiatal hernia repair and reoperation for recurrence.
- Institution: Cleveland Clinic Florida
- Timeframe: 2005-2022
- Data Collection: Demographic information, intraoperative details, and postoperative outcomes.



Intraoperative and Postoperative Outcomes

Characteristic	Primary Surgery (n=61)	Reoperation (n=61)	OR (95% CI)	p-value
Operation Time (min)	94 (34, 238)	83 (37, 240)	1.00 (0.99, 1.01)	0.740
Length of Stay (day)	2 (1, 18)	2 (1, 20)	1.02 (0.90, 1.16)	0.775
Intraoperative Complication	1 (1.6)	6 (9.8)	6.55 (0.76, 55.70)	0.087
Postoperative Complication	11 (18.0)	21 (34.4)	2.39 (1.02, 5.41)	0.044
Reoperation at 30 Days	4 (6.6)	6 (9.8)	1.55 (0.42, 5.78)	0.513
Readmission at 30 Days	11 (18.0)	22 (36.1)	2.56 (1.10, 5.78)	0.029

*Data listed as median (range) or absolute number (percentage)

Results

- Sample size (exhibited left): n=61
- Median Age: 60 (range 26-77)
- Gender: Male n=10 (16.4%) Female n=51 (83.6%)
- Time to recurrence (median): 47 months (range 1-168)
- BMI at index surgery (median): 30 kg/m^2 (range 21-55)
- Risk factors for recurrence:
  - **Open surgery** (OR 5.66 CI95% 2.25-14.20, p<0.001)
  - **Reoperation for complication** within 30 days postoperation (OR 4.07 CI95% 1.31-12.60, p=0.015)
- Protective factors for recurrence:
  - **Male sex** (OR 0.48 CI95% 0.24-0.98, p=0.04)
  - **Older age** (OR 0.97 CI95% 0.95-0.99, p=0.001)

Conclusion

- Reoperation for hiatal hernia repair can present a complicated anatomic and surgical landscape.
- Recurrent surgery poses an increased risk for postoperative complications and readmissions within 30 days.
- Further, reoperation for complication as well as open surgery are associated with a higher recurrence rate after index repair.