



Hiatal Hernia Surgical Repair: 5-Year Experience at a Colombian Referral Center

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Study Period

2020-2024
326 patients analyzed

Approach

99.1% laparoscopic
Minimally invasive focus

Same-Day Discharge

56.2% outpatient
Enhanced recovery

No manometry performed

11,3%
33% motility disorders



Methods

Retrospective analysis of 326 consecutive patients, 2020-2024



Analysis

Bivariate comparison using relative risk (RR) as association measure



Validation

Results consistent with international literature benchmarks

Clinical Implications

This represents the **largest Colombian series** of hiatal hernia surgeries reported to date. The 21.5% recurrence rate aligns with international literature, validating our surgical approach and follow-up protocols; however, only 4.7% of patients required surgical reintervention.

The successful implementation of outpatient surgery in over half of patients demonstrates the feasibility of enhanced recovery pathways in this population. Laparoscopic technique dominance (99.1%) reflects modern surgical standards.

Observed differences between fundoplication types emphasize the critical importance of individualized surgical planning based on patient characteristics and hernia complexity.



Critical safety view of hiatal hernia. Original image; AI-assisted improvement of resolution

Key Findings: Nissen vs. Toupet Comparison

Reintervention Risk

Toupet patients showed **2.29× higher risk** of requiring reintervention compared to Nissen fundoplication ($p < 0.05$). This significant difference suggests Nissen may offer more durable outcomes.

Readmission Rate

Toupet technique associated with **1.95× increased readmission risk** versus Nissen ($p < 0.05$). Hospital readmissions were more frequent in the partial wrap group.

Safety Profile

No significant differences in mortality or major complications between techniques. Both approaches demonstrated excellent safety profiles with comparable complication rates.

Variable	Value
Operative time, min — mean (SD)	125.03 (47.60)
Blood loss, mL — mean (SD)	52.50 (82.34)
Complications, n (%)	6 (1.84)



Conclusion

This high-volume center experience identifies relevant outcome differences between fundoplication techniques that may guide future surgical decision-making. The data supports tailored approach selection based on patient-specific factors rather than a one-size-fits-all strategy.