

Title: Routine vs. Selective Fundoplication in Hiatal Hernia Repair

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Purpose:

Routine fundoplication during hiatal hernia (HH) repair is widely accepted as standard surgical practice, despite inconsistent evidence for its long-term benefit. This study evaluated whether a selective fundoplication approach delivers better outcomes in symptomatic control and reduces the need for reoperation.

Methodology:

This retrospective, single-surgeon cohort study included 410 patients who underwent HH repair between 2005 to 2020. Patients who underwent HH repair prior to June 2014 routinely received fundoplication (non-selective era cohort; NSEC), whereas from June 2014 onwards, fundoplication was selectively performed (selective era cohort; SEC). Symptomatic recurrence rates, reoperation rates and cumulative rates were compared between the two cohorts were compared using Chi-square, Kaplan-Meier, and Cox regression analyses.

Results:

Median follow-up period was 32 months (IQR 3-78). The NSEC had significantly higher rates of symptomatic recurrence ($p=0.027$), reoperation ($p<0.001$), and cumulative reoperation (Log-rank $p=0.002$) compared to the SEC. Within SEC, selective fundoplication and no fundoplication were associated with lower hazard of reoperation compared to routine fundoplication (aHR 0.267, 95% CI 0.080–0.890, $p=0.032$; HR 0.402, 95% CI 0.176–0.919, $p=0.031$). Mesh usage was associated with lower hazard of reoperation (aHR 0.497, 95% CI 0.261–0.946, $p=0.033$).

Conclusion:

This challenges the surgical dogma that routine fundoplication reduces postoperative reflux and hernia recurrence. Selective fundoplication approach, coupled with mesh reinforcement when appropriate, achieves acceptable outcomes and is associated with lower hazard of reoperation compared to routine fundoplication. This prompts re-evaluation of current fundoplication guidelines during HH repair. However, interpretation must account for surveillance bias. Further prospective studies with standardised assessments, and follow-up protocols are needed to confirm these results.