

Is Routine Fundoplication Still Justified in Hiatus Hernia Repair?

Authors: Andrew Tse, Phue P Hmwe, Daniel L Chan, Michael L Talbot

BACKGROUND & AIMS: Fundoplication is commonly performed during hiatus hernia repair to reduce postoperative reflux and recurrence; however, its necessity remains debated. This study assessed whether fundoplication influences symptomatic recurrence and reoperation in hiatus hernia repair.

METHODS: A retrospective cohort study included 409 patients who underwent primary hiatus hernia repair between February 2005 and October 2020, excluding those with concomitant bariatric procedures. Before June 2014, fundoplication was routine; after this date, it was selectively applied. Patients with limited intra-abdominal oesophageal length after mobilisation, dysphagia or no history of reflux did not receive fundoplication, while those with reflux did. Recurrence of reflux symptoms and reoperation rates were compared between eras and between patients with and without fundoplication. Chi-square tests and binary logistic regression were performed, adjusting for age, sex, BMI, mesh use, preoperative reflux, and follow-up length.

RESULTS: There was no significant difference in recurrence or reoperation rates between routine and selective fundoplication eras after adjustment. Fundoplication did not demonstrate a protective effect against recurrence or reoperation in unadjusted or adjusted analyses. Follow-up length was an independent predictor, with each additional month increasing odds of detection by approximately 4.5% ($p = 0.001$), confirming detection bias.

CONCLUSION: Fundoplication during hiatus hernia repair did not significantly reduce recurrence or reoperation rates. These findings suggest routine fundoplication may not be necessary, though interpretation must account for detection bias from longer follow-up and selection bias associated in the non-random selection. The data offers reassurance to clinicians considering selective fundoplication for their patients.