CLINICAL @LERT

Should abnormal oesophageal motility in gastro-oesophageal reflux disease (GORD) influence decisions about fundoplication?

R C Heading

Does abnormal oesophageal motility in gastro-oesophageal reflux disease affect the outcome of laparoscopic fundoplication?


Background: The role of impaired oesophageal motility, which is found in up to 50% of patients with severe gastro-oesophageal reflux disease (GORD), is unclear. Some studies have suggested that fundoplication can correct the motility disturbance and that tailoring the type of fundoplication will improve the clinical outcome.

Aims: To determine whether (i) oesophageal dysmotility is associated with severity of GORD symptoms and outcome of fundoplication and (ii) whether a complete (Nissen) or partial (Toupet) fundoplication improves oesophageal dysmotility.

Study design and setting: Randomised controlled trial in single German teaching hospital.

Methods: A total of 200 patients (median age 56 years) with GORD who had undergone an endoscopy, oesophageal manometry, and 24 hour pH monitoring prior to surgery were stratified according to the presence or absence of oesophageal dysmotility and then randomised to either a Nissen or Toupet laparoscopic fundoplication. Four months after operation patients were reassessed and had repeat endoscopy, manometry, and pH testing performed by a single observer unaware of the surgical procedure.

Results: Preoperative dysmotility was associated with more severe reflux symptoms, more frequent resistance to medical treatment (64% v 49%; p<0.05), and a greater decrease in oesophageal sphincter pressure compared with normal motility (9.5 v 12.4 mm Hg; p<0.005). Nevertheless, postoperatively, clinical outcomes and reflux recurrence (21% v 14%) were similar in those with and without dysmotility. Oesophageal motility remained unchanged in 85% of patients, was normalised in 20 (10 Nissen/10 Toupet), and became abnormal in nine (eight Nissen/one Toupet).

Conclusions: Oesophageal dysmotility: (1) reflects more severe disease; (2) does not affect the postoperative outcome at four months; (3) is not corrected by either type of fundoplication; (4) may develop as a result of fundoplication; and (5) requires no tailoring of surgical management.
lower sphincter relaxation, intrabolus pressure just above the sphincter, and transit of the bolus through it. In taking this subject further, we must also grapple with the problem of how to assess and categorise dysphagia in a way that begins to match the sophistication of the physiological measurements we can now make. Is the dysphagia intermittent or persistent? For liquids as well as solids? Do some patients report “no dysphagia” because self imposed dietary restrictions have kept it at bay? Do others experience dysphagia mainly because of the way they eat and swallow? There are other uncertainties too, obviously, but there are as many inadequacies and oversimplifications in our current assessments of dysphagia as there are limitations associated with standard oesophageal manometry.

It is self evident that the diagnosis of GORD should be certain before antireflux surgery is undertaken. In patients being considered for operation, manometry and pH testing using currently available standard methods can contribute to confirmation of this diagnosis and will identify the rare diagnostic surprise, such as previously unrecognised achalasia or scleroderma, which may prompt a rethink about surgery. However, neither preoperative nor postoperative dysphagia in the GORD patient is being adequately explained by our current evaluations of oesophageal function. A better understanding of the mechanisms causing dysphagia is needed if we are to minimise and perhaps prevent its occurrence postoperatively.

**Authors’ affiliations**

R C Heading, Centre for Liver and Digestive Disorders, Royal Infirmary, Edinburgh EH3 9YW, UK, R.Heading@ed.ac.uk

**REFERENCES**