Title
High-resolution manometry is a valuable tool in the investigation of adverse symptoms in post-bariatric patients

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Background
Obesity is a major global health issue that is increasing in prevalence. Bariatric surgery is an effective treatment of excess weight loss, but there is evidence that gastro-oesophageal reflux disease (GORD) and oesophageal dysmotility are associated with laparoscopic adjustable gastric band (LAGB), laparoscopic sleeve gastrectomy (LSG) and Roux-en-Y gastric bypass surgery (RYGB). Oesophageal dysmotility and GERD then manifest as symptoms of reflux or regurgitation and dysphagia post-bariatric surgery.

Purpose
The role of high-resolution manometry (HRM) as a tool to evaluate and manage these symptoms, particularly in the post-bariatric surgery population, has yet to be defined or explored. This study proposes HRM as a useful adjunct in the assessment of symptomatic postbariatric surgery patients, to complement traditional anatomical studies (endoscopy, barium swallow and three-dimensional computed tomography (3D CT)).

Methodology
A retrospective case series was conducted on 83 consecutive post-bariatric surgery (LAGB or LSG or LRYGB) patients from a single bariatric practice between 2012 to 2021 who presented with symptoms of reflux and dysphagia. They underwent anatomical studies (endoscopy and/or barium swallow and/or 3D CT) and functional studies with HRM.

Results

A total of 83 patients (80.7% female) were investigated with at least one anatomical study and functional study with HRM during this period. Patients reported reflux or regurgitation as the main symptom in 41 (49.4%) cases and dysphagia in 28 (33.7%) cases. Other symptoms, including abdominal pain; loss of restriction; food intolerance and vomiting, accounted for the remaining 14 cases (16.9%). In 46 patients (55.4%) functional and anatomical studies corresponded with the consistency of either normal (14 patients, 16.9%) or abnormal results (32 patients, 38.6%). 23 patients (27.7%) had abnormal anatomical but normal functional studies. Of particular interest, 50% (14 out of 28 patients) of patients with normal anatomical studies were found to have abnormal functional results on HRM.

Conclusion

The utility of HRM in investigating symptomatic post-bariatric surgery patients identified abnormal findings in a significant proportion of patients with normal anatomical studies. These findings indicate that manometry may be a useful adjunct to detect functional disorders that may be missed by endoscopy, barium swallow or 3D CT investigations.

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