

Gastro-oesophageal reflux in morbidly obese patients is associated with hiatal hernias but not with body mass index

In a recent issue of this Journal (2005;63:344-7) Loffeld concluded that there is a definite relation between body mass index (BMI) and the occurrence of gastro-oesophageal reflux disease (GERD). He also discussed the relation between obesity, GERD, and *Helicobacter pylori*. The exact relation and the consequences are not yet entirely clear.

As Loffeld describes, the most important pathophysiological mechanism causing reflux is long-lasting spontaneous relaxation of the lower oesophageal sphincter (LOS) or low pressure in the LOS. A hiatal hernia is an additional risk factor. Finally, increased intra-abdominal pressure plays an important role in the mechanism of reflux. Since these factors are generally accepted to be present in patients with obesity, these patients are expected to be at risk of developing GERD.

We studied the association between BMI and hiatal hernia or GERD in patients with morbid obesity. We retrospectively analysed the preoperative data of 198 morbidly obese patients (BMI >40 kg/m², or BMI >35 kg/m² in combination with relevant comorbidity) treated by gastric banding between March 1995 and December 2000. Data of the extensive preoperative protocol were analysed for BMI, symptoms of GERD, use of PPI or H₂ blockers, and result of gastroscopy. Endoscopy was performed in 170 patients (157 females, 13 males; age 37 years, range 20 to 69 years; BMI 44.9 kg/m², range 35.6 to 60.9 kg/m²). GERD symptoms were reported in 50 patients (29.4%), eight of whom were treated by PPI or H₂ blockers. Hiatal hernias were seen in 81 patients (47.6%) and symptomatic in 30 (37.0%). Of the patients without hiatal hernia, 27.6% reported symptoms of GERD. Endoscopic signs of reflux oesophagitis were present in 61.7% of patients with hiatal hernia, vs 12.4% in those without ($p < 0.001$). There were no differences in the BMI in patients with and without GERD symptoms (44.9 ± 5.2 kg/m² vs 45.0 ± 5.8 kg/m²).

We concluded that in morbidly obese patients, GERD symptoms occur independent of BMI, but are related to the presence of hiatal hernia. Nevertheless, based on our findings, overweight cannot be excluded as a risk factor for GERD, since we did not compare our morbidly obese population with the general population. However, it seems that being obese or getting more obese does not increase the risk of developing GERD. Treatment of GERD in morbidly obese patients is medical.

However, treatment of obesity and especially surgical treatment of morbid obesity is relevant. The number of patients with obesity is growing and will give rise to serious health problems, such as, diabetes, hyperlipidaemia, hypertension, and obstructive sleep apnoea.¹⁻³ Recent follow-up studies have demonstrated that bariatric surgery resulted in long-term weight loss, and an improved lifestyle. Furthermore, a substantial majority of patients with diabetes, hyperlipidaemia, hypertension, and obstructive sleep apnoea experienced complete resolution or improvement.²⁻⁴

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