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Robotic gastric bypass with concomitant hiatal hernia repair

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Abstract

Roux-en-Y gastric bypass (BPGYR) is one of the most reproduced bariatric techniques worldwide, especially in patients with gastro-oesophageal reflux (GERD) and/or symptomatic hiatal hernia (HH). We present the case of a patient with Grade III obesity presenting with GEDR and associated big hiatal hernia, who underwent BPGYR with robotic cruroplasty. We consider that an adequate preoperative study of each patient is of utmost importance, as well as the repair of HH associated with bariatric surgery, as we can prevent the appearance of future complications.

Keywords:

- Morbid obesity
- Gastric bypass
- Cruroplasty
- Hiatal hernia

Introduction

Hiatal hernia (HH) repair with fundoplication is the surgical technique of choice in patients with symptomatic HH. However, in obese patients with a body mass index greater than 35kg/m2 the recurrence rate of this technique is high. Roux-en-Y gastric bypass (RYGB) is the technique of choice in this group of patients [1]. RYGB reduces gastric size and consequently gastric acid secretion, and with subsequent weight loss, intra-abdominal pressure is reduced, factors that significantly improve gastro-oesophageal reflux (GER). Obese patients with associated GER and HH may benefit from HH repair in conjunction with RYGB. The combination of both procedures is safe and effective [2,3].

Material and Methods

This is a case of a 48-year-old female patient with a history of arterial hypertension under treatment and anxious depressive syndrome. The maximum BMI was 48 kg/m2 with a weight of 114kg. The patient reported occasional vomiting with very symptomatic and limiting GERD, resistant to oral medication. Gastroduodenal transit and upper endoscopy revealed a large hiatal hernia with associated GERD.

The procedure was performed total robotic. First, the hiatus was carefully dissected and the hernia sac was resected. Subsequently, the cruroplasty was performed with non-absorbable suture and due to the size of the defect and the tension in the diaphragmatic pillars after closure, it was decided to place a mesh to reinforce the repair. A small mesh is placed directly over the diaphragmatic pillars, avoiding contact with the esophagus. Finally, BPGYR was performed, leaving one metre of alimentary limb and one metre of biliopancreatic limb. The postoperative course was normal, and the patient went to home two days later.

Results

BPGYR is currently the second most performed bariatric surgery worldwide. [4]. It is the technique of choice if the patient has symptomatic HH. The incidence of HH is higher in obese patients, as is the incidence of GERD symptoms. Obesity has been shown to modify pressures at the gastro-

oesophageal junction and increase the separation between the lower oesophageal sphincter and the diaphragmatic crura. Obese patients are 4.2 times more likely to have HH compared to people with a body mass index of 20 kg/m2. Their prevalence is 40% compared to 12.6% in the general population [5]. A significant number of morbidly obese patients may not have their HH repaired during bariatric surgery because it was not studied or diagnosed preoperatively. One of the long-term complications in BPGYR patients with unrepaired HH may be pouch migration and thus de novo GER or increased symptomatology. Therefore, an adequate preoperative study by endoscopy is of utmost importance and, in case of concomitant HH, repairing it.

Conclusions

BPGYR with concomitant repair of HH should be considered as the surgical treatment of choice in obese patients with symptomatic HH and GERD.

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