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Gastric bypass as review surgery after vertical band gastroplasty: reporting a case of an untreatable gastroesophageal reflux

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Abstract:

The revision surgery in patients with a history of bariatric surgery, is becoming a more frequent procedure due to an inadequate weight loss or complications such as malnutrition and gastroesophageal reflux. We present the case of a 55-year-old woman with a history of vertical band gastroplasty, who consulted the doctor due to epigastric pain and gastroesophageal reflux that arose from the resistance to change after the medical treatment. Surgical revision is indicated by the conversion to gastric bypass in Y Roux.

Keywords:

- Bariatric Surgery
- Gastroesophageal reflux
- Gastric bypass
- Vertical-banded gastroplasty.

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Introduction

The revision surgery in patients with a history of bariatric surgery is becoming an increasingly frequent procedure. Complications such as protein malnutrition, vomiting, gastroesophageal reflux and other adverse symptoms related to surgery, as well as inadequate weight loss, make it necessary to improve the clinical conditions patients suffer through revision surgeries (1,2) Vertical band gastroplasty (VBG) is a technique that has not been used because of its high percentage of failure in weight loss, related to gastro-gastric fistula due to dehiscence of the suture line, with consequent dilation of the reservoir and the appearance of the untreatable gastroesophageal reflux. (3). The Roux-en-Y gastric bypass conversion surgery (BGYR) is considered one of the best options for these cases (4).

Clinical case

A 55-year-old woman with a history of hiatal hernia and a history of obesity refractory to hygienic dietary measures, who underwent vertical band gastroplasty in 1995. She attended outpatient clinics presenting epigastralgia and gastroesophageal reflux for 2 years with exacerbation of the clinic in the last semester, associated with postprandial peak and regurgitation resistant to any medical therapeutic measure. Esophageal manometry was performed, which revealed difficulty in passing the lower esophageal sphincter with hypo kinetic contractions of the esophagus. In addition, the esophageal transit and computed tomography (CT) are performed, where only a hiatus hernia is described without objectifying other lesions. The physical examination shows a weight of 84 kg, size 1.63m with a BMI corresponding to 31.62 kg / m2. For these reasons, we proceed to perform revision surgery. We observe a gastric-gastric fistula due to the dehiscence of the old vertical gastroplasty suture, presenting communication between the gastric pouch and the residuary pouch. The laparoscopic Roux-en-Y gastric bypass was performed according to a conventional technique. (5). At 48 hours postoperative he presented with sudden pain, predominantly in mesogastrium, without hemodynamic repercussion, for which a thoracic-abdominal CT scan was performed, finding an intraperitoneal hematoma in the epi-mesogastrium without signs of active bleeding, which was decided to be managed by conservative treatment. On the 7th post-operative day, she is discharged with good tolerance to a liquid diet. During the postoperative follow-up, the patient presented, initially, improvement and successively disappearance of the gastroesophageal reflux, presenting correct tolerance to progressively normal diet and decrease of 14 kg in 4 months (BMI 29 kg / m2). Seven months after surgery, control was carried out using an Upper GI series transit that reported normal motility and morphology without presenting a hiatus hernia (Figure 1)

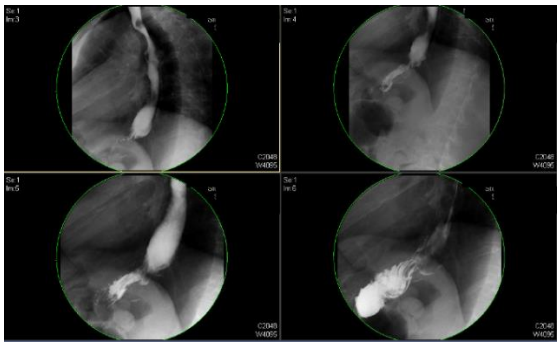

Figure 1: Control esophagogastroduodenal transit

Discussion

With the largest number of bariatric surgeries performed, surgeons encounter an increase in complications. Inadequate weight loss is the most common cause of a review operation. Surgical disruption of the anatomy of the lower esophageal sphincter in restrictive techniques and the placement of a gastric band, increase the risk of developing gastroesophageal reflux disease (GERD) and cause esophageal dilation with consequent pseudoacalasia, giving reflux or refractory heartburn to the treating doctor (6) The vertical band gastroplasty (VBG), described by Mason (7), has been one of the most used techniques of bariatric surgery during the 1980s. Currently, it is in disuse due to the postoperative complications that this technique presents, such as gastric erosion, stenosis, dysphagia and vomiting, in addition to the difficulty to maintain the weight loss initially achieved (1). In the study by Nieves et al., the percentage of overweight lost (PSP) is evaluated in patients with BVS, considering the PSP after 60 months and dividing patients with good weight loss, when their PSP was> 50% and patients with failures if their PSP was <50 %. It was observed that only 55% of the patients reached this figure. This shows that BVS, does not meet the requirement to maintain a long-term PSP> 50% in 75% of the patients (3). Balsiger et al describes a group of 71 patients with VBG who were followed-up for more than 10 years. Only 20% achieved the expected weight loss and 17% of the patients were re operated for symptoms such as vomiting, gastroesophageal reflux and inadequate weight loss. Some patients present weight loss and significant malnutrition due to poor oral tolerance or vomiting (8). In approximately 46% of the cases, patients undergo revision surgery with a preoperative diagnosis of oral intolerance (9). In the case presented, the patient did not show an inadequate weight loss, but a deterioration of the quality of life due to symptoms related to persistent gastroesophageal reflux. These symptoms are mainly related to the stome stenosis, the enlargement of the gastric "Pouch" or the disruption of the stapling line. The

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latter was not noticed in the pre-operative studies, where only an incompetent lower esophageal sphincter, related to the presence of a hiatus hernia, could be observed. The need for revision surgery after VBG varies from 21-56%, depending on the series, and is associated with high resolution rates of the complications. (10). The objective of revision surgery is to reverse the associated complications, by decreasing postoperative complications and preventing weight gain re-gain (8). In case of VBG failure, the conversion to another bariatric surgery is the first therapeutic option. In the retrospective study of Van Wezenbeek et al. (11) three different types of revision surgeries were compared after VBG, showing that the RYGBR is superior to vertical gastrectomy (VG) and the revision of vertical band gastroplasty, primary (Re-VBG) in terms of additional weight loss. Although GV seems to have fewer short-term postoperative complications compared to RYGB, this data is not confirmed in the long term, with a higher rate of complications and a higher rate of second revision surgery (11)

In the study carried out by Ekelund et al. (12), a revision surgery of "GBV to GBR" was performed in 32 patients due to inadequate weight loss, gastroesophageal reflux and / or dehiscence of the gastric suture line. Pre and post-operative gastroesophageal reflux was compared by endoscopy, esophageal pH-metry and a score, showing that with revision surgery, all patients presented improvement in reflux and clinical parameters, allowing the withdrawal of treatment with inhibitors of proton pump and antacid therapies in all cases. This suggests that the conversion of VBG to BGYR alleviates the problems of restrictive bariatric surgery (12). The RYGB is the option that should be considered as the procedure of conversion of choice in patients who have gastroesophageal reflux. This has been shown, with good results, in different works (10), in addition to producing greater weight loss and decreasing gastroesophageal reflux associated with other restrictive techniques (4,13). The postoperative development of GERD in patients with RYGB is rare (6). Naik et al. conducted a study in which 81 patients were examined with esophageal manometry before and after a RYGB. The results described a statistically significant difference in the reduction of the lower esophageal sphincter pressure with an increased esophageal wave amplitude in post-operated patients (6).

Conclusions

The bariatric revision surgery is technically complicated and has complication rates greater than primary bariatric surgery. However, the laparoscopic revision of GBV to BGYR is a feasible procedure that offers good results in the resolution of complications, and, that should be considered when we are facing a patient with the presence of gastroesophageal reflux and inadequate weight loss.

List of abreviations

VBG: vertical band gastroplasty

BGYR: Roux-en-Y gastric bypass

cGV: Conversion to Vertical Gastrectomy

Re-VBG: Review of vertical band gastroplasty

GERD: Gastroesophageal reflux disease

PSP: Percentage of excess of weight lost

CT scan: CT scan.

Conflict of interests

This work has not received funding of any kind. The authors do not have any conflicts of interest for the development of this work.

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