

Revision surgery for delayed gastric emptying in gastroileal bypass.

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Summary:

Obesity is a frequent chronic disease with consequences for the patient. Different techniques help weight loss through different mechanisms of action. The Gastroileal Bypass is a surgical technique for the treatment of obesity described as simple and with a low rate of early postoperative complications. Our objective is to present a late complication resolved with minimally invasive surgery.

We present the case of a 44-year-old woman who underwent a laparoscopic gastroileal bypass for type II obesity associated with type II diabetes mellitus, with good medium-term results. Four years later, she began food intolerance clinics, which led to a hospital admission for malnutrition.

The esophageal transit revealed a stricture in the gastroileal anastomosis with gastric dilation. An endoscopy was performed that showed a retaining stomach with an inflammatory-look anastomosis that did not condition a stenosis. Laparoscopy was performed with resection of the anastomosis and conversion to the gastrojejunal bypass with Roux-Y. The postoperative period was uneventful, and she was discharged on the 7th. postoperative day. Twelve months later, she presented normal weight and normal nutritional analysis.

Keywords:

- Gastroileal bypass
- Complications
- Revision surgery

Introduction

Obesity is a chronic disease that is increasingly diagnosed nowadays with serious consequences for the patient both health and social environment.

In order to give answers to this problem, various techniques have emerged that follow different principles, and in combination with changes in the patient's lifestyle and diet; they aid weight loss through the action of restrictive, malabsorptive or mixed mechanisms.

The gastroileal bypass is a surgical technique for the treatment of obesity described as simple, safe, reproducible, with excellent results, and low morbidity and mortality (1,2). The fundamental principle of weight loss in this technique is predominantly the malabsorptive component rather than the restrictive one, since gastric reservoir is not performed (1).

The objective of this work is to present a late complication of bariatric surgery resolved with minimally invasive surgery.

In March 2017, she began with symptoms of postprandial heaviness and progressive vomiting that led to a hospital admission in May 2018 due to malnutrition, severe asthenia and inability for oral nutrition, reaching a BMI of 18.9 upon admission.

In the gastrointestinal study, a stricture was observed in the gastroileal anastomosis with dilation of the gastric remnant. (Figure 1). An endoscopy was also performed that showed a retaining stomach with an inflammatory-look anastomosis that did not condition a stenosis and allowed the passage of the endoscope without problems.

Material and methods

We present the case of a 44-year-old woman who underwent a laparoscopic gastroileal bypass in October 2013 (minimal gastric reduction with a single anastomosis and a 2.5-meter common loop) (3), for treatment of obesity type II (BMI 37.95) associated with type II diabetes mellitus and hepatic steatosis.

The short and medium-term evolution was favorable, presenting a normal BMI during the first four years, around 24, and a complete remission of diabetes.



Figure 1. Gastrointestinal study showing a stricture in the gastroileal anastomosis

Since the original technique describes a gastroileal anastomosis, it was enlarged with a 60 mm long endostapler (1), and the endoscope passed without difficulty; The option of performing endoscopic dilation was not considered.

Due to the severity of the malnutrition and food intolerance, nutritional optimization and subsequent laparoscopy with resection of the anastomosis and conversion to gastrojejunal bypass with Roux-Y were performed

Results

A 5-port laparoscopic access was performed with a 30° optic positioned above the belly button. The patient was placed in laparoscopic French position.

At first, an exploratory laparoscopy was performed, where a stenosis of the gastrojejunal anastomosis was found with a dilated gastric stump, which fell on it, increasing the obstruction of the loop. (Figure 2).

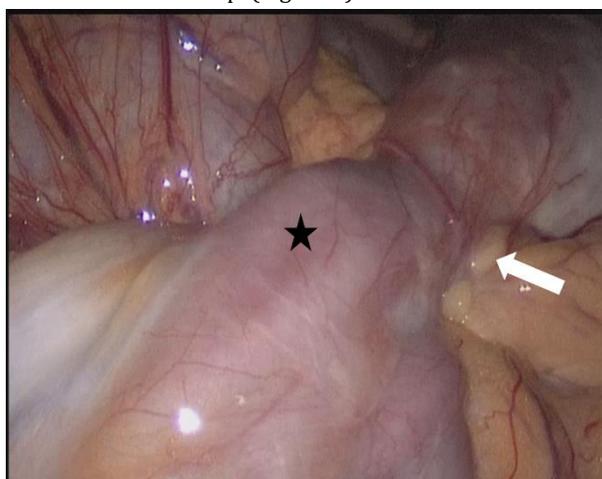


Figure 2. Stenosis of the gastroileal anastomosis with loop torsion. The white arrow indicates the gastroileal

anastomosis and the black star shows the efferent ileal loop.

A trouser resection of the gastroileal anastomosis was performed using a 60-mm linear endostapler, thus re-establishing the transit, with a lateral ileoileal anastomosis.

Subsequently, the tutored gastric reservoir was performed with a 36 Fr orogastric tube, resection of the greater curvature, and the Roux-en-Y gastrojejunal bypass was continued with a short biliary loop and a 160-cm food loop. The postoperative period was uneventful, and she was discharged on the 7th. postoperative day, with no subsequent readmission.

A year after the intervention, she presented normal weight, an analysis with nutritional parameters within normality and complete recovery of mobility.

Discussion

The revision bariatric surgery treats complications that occur after the first 30 days of the primary surgery (4). The revision surgery is performed: in the event of inadequate weight loss, due to weight gain, due to poor control of comorbidity, in cases of severe malabsorption with malnutrition, or when complications related to the procedure appear (4-7).

The revision surgery shows an upward trend; since as the numbers of bariatric procedures performed increase, its frequency increases proportionally. Bariatric and revision surgeries performed in the period between 2011 and 2018 are recorded on the website of the American Society for Metabolic and Bariatric Surgery: 158,000 procedures with 6% revision surgery and 252,000 procedures with a 15.4% revision surgery respectively (8).

In 2016, the Surgery of Obesity and Metabolic Disorders International Federation (IFSO) registered a total of 685,897 bariatric surgeries, out of which 50,977 (7.4%) were revision surgeries, which presented very striking geographic variations (5). In our country, in 2018, 4,739 bariatric surgeries were performed, out of which 59 (1.2%) were revision surgeries (9). These figures are within the 2% recommended by the quality criteria document of the Spanish Association of Surgeons (AEC) and the Spanish Society of Obesity Surgery (SECO) (7).

In the IFSO survey, around half of the delegations consulted specified the cause of the review: a 63% was due to insufficient weight loss, weight gain or non-resolution of comorbidity; a 26% for complications and an 11% for both (5).

The gastroileal bypass is a malabsorptive technique described by its authors as simple, safe, reproducible and with excellent results (1). Its authors have recently published the analysis of the 1,512 cases with 2.71% recent complications and less than 1% complications of marginal ulcer and anastomotic stenosis, requiring eight patients with 15 endoscopic dilatation and 7, surgical treatment (2). In the case we present, taking into account that the anastomosis performed in the initial surgery was done with a 60 mm stapler, and that in the endoscopy the afferent and efferent loops were accessed without difficulty, an initial surgical treatment was chosen. In fact, in addition to the stenosis that the anastomosis presented,

the dilatation of the gastric stump was imprinted on the anastomosis, contributing to its obstruction. In literature, we have found a technical article on the conversion from gastroileal bypass to laparoscopic gastric bypass due to weight gain associated with gastroesophageal reflux (10).

The type of re operation to be performed should consider the primary surgery, the patient's anatomy, the patient's weight and comorbidity, and the surgeon's experience (11). In this case, we decided to perform a Roux-en-Y gastric bypass with little malabsorptive component due to the history of diabetes mellitus, although a reversal technique could have been considered.

The initial surgical strategy was a laparoscopic approach, since there is evidence that revision surgery can be safely performed using the above. Although initially, the revision surgery was performed by laparotomy, nowadays, most groups perform it through minimally invasive surgery (11). In fact, in the SECO's annual activity surveys, there is evidence of a growing trend in favor of laparoscopic access for revision surgery (9,12).

Conclusions

The revision surgery is indicated due to insufficient weight loss, poor comorbidity control, weight gain, or complications that affect the quality of life of patients. It can be performed openly or laparoscopically, the latter being the most widely used today.

The anastomotic stenosis is a late complication within the possible complications of obesity surgery, which can be resolved in a minimally invasive way without major problems and with good results.

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