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Silastic band erosion in the bypassed stomach after Fobi-Pouch operation for obesity: Case report

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ABSTRACT

INTRODUCTION: Worldwide, one of the most commonly performed bariatric surgeries is the laparoscopic Roux-en-Y gastric bypass (LRYGP). Access to the bypassed stomach in patients who have undergone this procedure, for evaluation and/or management in different clinical situations remains a challenge for the physician. In order to facilitate the entrance to the gastric remnant, a silastic marker is left in place during the Fobi-Pouch operation, a modified laparoscopic gastric bypass surgery technique.

PRESENTATION OF CASE: We present the case of a 56-year old female who presented 10 years after a Fobi-pouch operation, complaining of severe upper gastrointestinal bleeding. An enteroscopy revealed several marginal ulcers and erosion of the silastic ring marker in the excluded stomach. A partial gastric sleeve resection including the silastic ring was performed without any complications, preventing further bleeding due to the eroded ring.

DISCUSSION: Physicians must be familiarized with the different bariatric procedures in order to associate the patient's symptomatology and possible surgery-related complications. Gastric ulceration and bleeding related to the presence of a foreign body have been previously described; however, to the best of our knowledge this is the first article reporting the concomitant erosion and bleeding of the silastic marker in the excluded stomach.

CONCLUSION: Silastic marker erosion in the bypassed stomach is a rare but possible complication not reported in the literature before. Different approaches for this complication are possible including laparoscopic management, with excellent results.

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1. Introduction

Bariatric surgery has become a keystone in the treatment of obesity. One of the most common bariatric procedures performed nowadays is the LRYGB, which has suffered several modifications since it was first described by Dr. Mason in 1966 [1].

The Fobi-Pouch LRYGP is a variation of the original technique and consists of a transected silastic ring vertical gastric bypass (<25 ml), an interposed Roux-en-Y limb, and the placement of a size 18 gastrostomy and 6 cm radio opaque silastic tubing in the bypassed stomach. The gastrostomy serves for decompression to prevent acute gastric dilatation, and for administration of medications or feeding if required. The gastrostomy tube is removed after

the first postoperative week, leaving the silastic marker to facilitate posterior percutaneous access to the bypassed stomach if necessary [2].

Some authors propose that the placement of a silastic marker should be routinely considered as an entrance to the excluded stomach in case any further diagnostic and/or therapeutic procedures are required [3]. Different methods to access the bypassed stomach have been described; including retrograde intubation and percutaneous punctures assisted by imaging when hemoclips or radiopaque silastic rings have been previously placed [4].

Upper gastrointestinal bleeding, gastric perforation, gastric cancer, intestinal metaplasia and biliary tree problems are some of the conditions in which access to the bypassed stomach is required [5,6]. The procedures available for access through the marked bypassed stomach include endoscopy, endoscopic cholangiopancreatography (ERCP) and ampullary sphincterotomy with stenting.

Articles reporting complications associated to the silastic ring vertical gastric bypass exist in the literature [6,7], however, articles reporting erosion of the silastic marker in the bypassed stomach were not found during our review of the literature. We present the

Abbreviation: LRYGP, laparoscopic Roux-en-Y gastric bypass.

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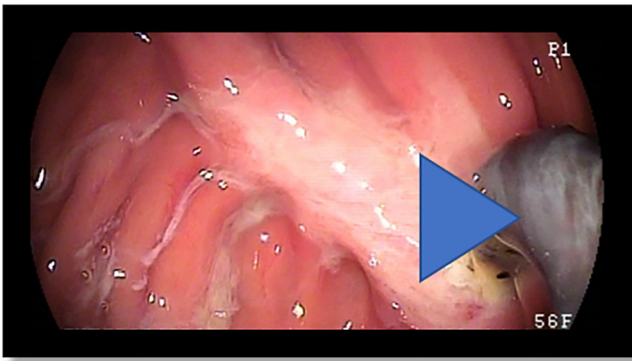


Fig. 1. Patient's enteroscopy showing erosion of the silastic marker (blue arrow) and several marginal ulcers in the excluded stomach.

first case of a patient with upper gastrointestinal bleeding due to an eroded silastic marker in the excluded stomach managed at an academic institution. This case report is compliant with the SCARE Guidelines [10].

2. Case presentation

A 56 year-old Hispanic female with a previous history of Fobi-Pouch operation 10 years ago presented to the office. Since her bariatric surgery, the patient had lost 30 kg. The patient's actual BMI was 29.7 kg/m². She had been complaining of melena, adynamia and asthenia during the last 3 years. In the last year, blood transfusions were required during two hospitalizations due to anemia secondary to upper gastrointestinal bleeding. During the last bleeding episode, hemoglobin had decreased from 17 gr. to 6.2 gr. Her physical examination was unremarkable. The abdomen was soft and non-tender, peristalsis was present, no masses were palpated.

An upper endoscopy was performed finding blood in the alimentary loop, however the source of bleeding was not identified. An enteroscopy was then performed, diagnosing erosion of the silastic marker and several marginal ulcers in the excluded stomach (Fig. 1). No attempts on removing the silastic rings were made.

The patient was scheduled for a diagnostic laparoscopy and subtotal laparoscopic gastrectomy of the excluded stomach. During the procedure multiple adhesions were found between the native stomach and the posterior abdominal wall. Lysis of adhesions was performed until a place where the silastic ring was eroding into the anterior gastric wall was identified, followed by dissection of the gastrocolic ligament next to the greater curvature. A window was

created in the middle third, where the silastic ring was eroding, to proceed with dissection of the short gastric vessels.

The decision to perform a partial sleeve gastrectomy of the native stomach was taken by the bariatric team. The gastrectomy was performed using an ECHELON FLEX™ (©Ethicon US, LLC) stapler with three green and one blue cartridges (Fig. 2). Finally, hemostasis was performed and the surgical specimen was reviewed to assess the complete removal of the silastic ring. (Fig. 3)

The patient's postoperative period was uneventful. She was discharged 24 h after surgery. At two-month follow-up she has not presented melena, signs of upper gastrointestinal bleeding nor abdominal pain.

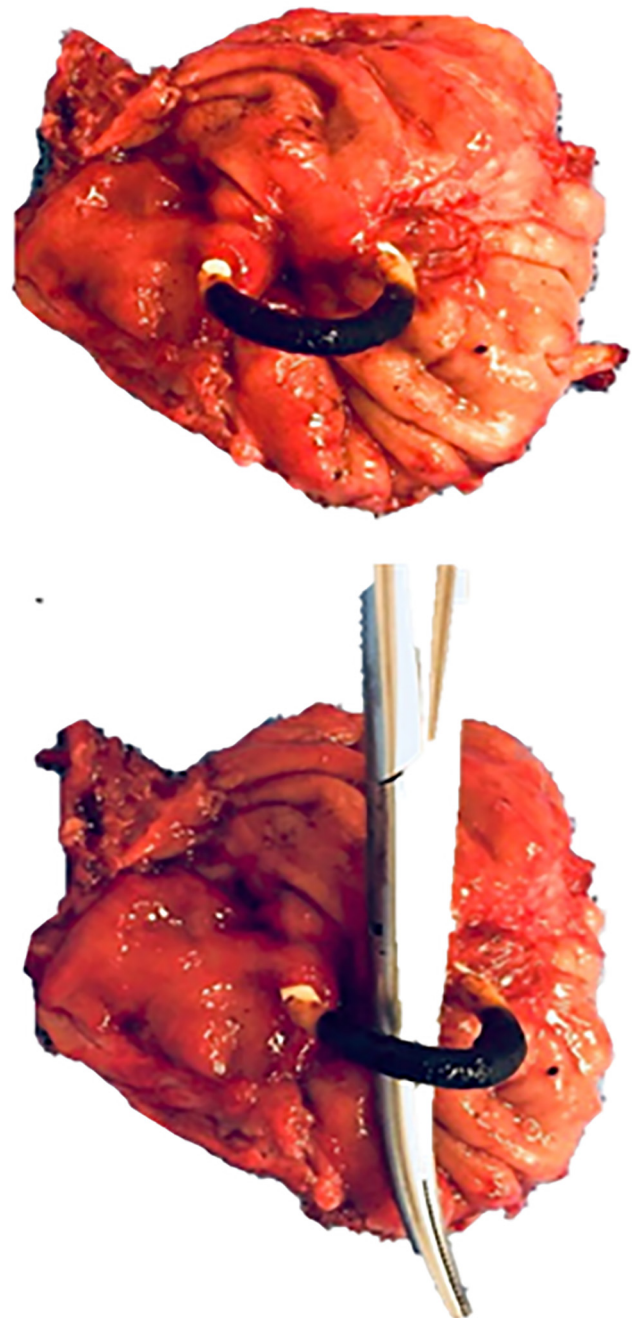


Fig. 3. Reviewing the surgical specimen to assess complete removal of the silastic marker.

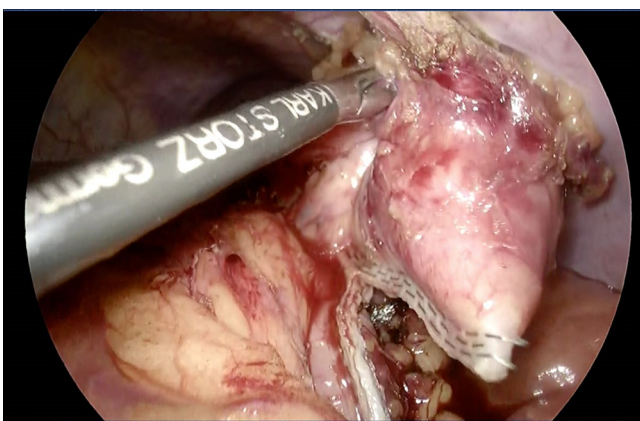


Fig. 2. Observe the multiple adhesions between the native stomach and the posterior abdominal wall. Partial sleeve gastrectomy of the native stomach was performed.

3. Discussion

Since bariatric surgeries have become frequent procedures nowadays, surgeons are facing challenging clinical scenarios related to early and late complications. Physicians must be familiarized with the different bariatric procedures in order to associate the patient's symptomatology and possible surgery-related complications.

Complications related to the presence of a foreign body for weight loss therapy include displacement, erosion, narrowing, opening and inadequacy. Erosion of a silastic band is a rare, well-known complication after a vertical banded gastroplasty, with a reported incidence ranging from 0.9 to 7% [7]. This complication can be expectantly managed or through open, laparoscopic or endoscopic removal. No reports regarding erosion of silastic bands in the excluded stomach were found during our review of the literature, therefore the incidence of this complication after Fobi-Pouch LRYGP is unknown.

Gastric ulceration and bleeding related to the presence of a foreign body have been previously described [6]; however, this is the first article reporting the concomitant erosion and bleeding of the silastic marker in the excluded stomach.

The decision for surgical rather than endoscopic management in this case was based on the presence of a marginal ulcer next to the eroded silicon band on the bypassed stomach and the fact that it was only seen with the enteroscope. A partial gastric sleeve resection including the silastic ring was performed without any complications, preventing further bleeding due to the eroded ring.

4. Conclusions

Silastic marker erosion in the bypassed stomach is a rare but possible complication not reported in the literature before. Different approaches for this complication are possible including laparoscopic management, with excellent results.

Even though access to the bypassed stomach is sometimes desired, a silastic marker must not be routinely placed during the LRYGP procedure, since it poses life-threatening complications such as upper gastrointestinal bleeding, requiring multiple hospitalizations and blood transfusions. Other options for accessing the excluded stomach should be considered, including imaging-guided percutaneous access, laparoscopic access, double-balloon enteroscopy and virtual endoscopy [5].

Conflicts of interest

None.

Funding

None.

Ethical approval

Ethical approval is exempt from our institution for case reports.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Author contribution

All author contributed equally in the conception and design, acquisition of data, analysis and interpretation of data, drafting the article and revising it critically for important intellectual content.

Guarantor

Alejandra Mariel Franco Martínez, MD.

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