

Migration of mesh into gastric lumen: A rare complication of vertical banded gastroplasty

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ABSTRACT

The problem of revision of failed vertical banded gastroplasty (VBG) has become a common situation in bariatric surgery. Sleeve gastrectomy (SG) has been recently used to revise failed restrictive procedures. This study presents a patient that is treated with Roux-n-Y gastric bypass because of mesh migration after SG for revision of failed VBG.

Keywords: Vertical banded gastroplasty, revisional surgery, mesh migration

INTRODUCTION

Vertical banded gastroplasty (VBG) is a purely restrictive procedure in which the upper part of the stomach is partitioned by a vertical staple line with a tight outlet wrapped by a prosthetic mesh or silastic band (1). Weight regain following VBG may be related to staple-line dehiscence and stomal pouch dilation (2). Sleeve gastrectomy (SG) is a good alternative for revisional surgery. In this study, we present current treatment for the complication of an old method.

CASE PRESENTATION

A 32-year-old woman underwent open VBG for management of morbid obesity 11 years ago. Sleeve gastrectomy was performed for revisional surgery 3 years ago due to weight regain. The patient visited our outpatient clinic for epigastric pain that had persisted for the past 3 months. The physical examination was unremarkable except for mild tenderness in the epigastric region. Esophagogastroduodenoscopy demonstrated the gastroplasty mesh eroding into the stomach (Figure 1). Case was considered incomplete migration of VBG mesh (Figure 2, 3). Therefore, after taking the informed consent of patient, laparotomy was performed to confirm the mesh erosion. The mesh was removed, and Roux-en-Y gastric bypass was performed. Postoperative course was not eventful, and the patient was discharged on postoperative day 7.

DISCUSSION

Vertical banded gastroplasty a primarily restrictive bariatric surgical procedure, was first described by Mason (1). Weight loss occurs because of decreased caloric intake of solid food. Vertical banded gastroplasty has been documented as an effective operation for morbid obesity (3). However, the long-term results of VBG have been questioned by authors (4, 5). Several late complications have been described, including the need for revisional surgery in up to 56% of patients (6). Band erosion has been recognized as a potential late complication. The incidence of mesh or silastic ring erosion has been estimated at 0.4% to 3% (7). The average interval to mesh erosion has been reported at 3 to 4 years (7). Vertical banded gastroplasty has been replaced largely by other procedures and is rarely performed due to lack of sustained weight loss, as well as the high incidence of complications requiring revision (8). The most common cause of weight regain in VBG is staple-line disruption and pouch dilatation. Sleeve gastrectomy or Roux-n-Y gastric bypass could be selected according to the surgeon's experience, and patient's weight status for revisional surgery. In this study, we performed a sleeve gastrectomy 8 years after VBG. Sleeve gastrectomy was applied with open procedure because the patient had a laparotomy incision due to VBG.

Sleeve gastrectomy was improved as the first stage for biliopancreatic diversion and duodenal switch. However, SG was proved to be an effective bariatric procedure on a short-term basis. Restriction of passage for food through the stomach is the major mechanism for weight loss with this procedure. Another

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Figure 1. Image of the mesh in the stomach



Figure 2. Incomplete migration of mesh



Figure 3. Mesh in the gastric lumen

widely investigated mechanism is reduction of ghrelin level by the excision of the gastric fundus (9). In the short-term follow-up, patients achieved severe weight loss. Most of surgeons widely performed this procedure due to its efficacy, technical simplicity, and low rate of morbidity. Furthermore, SG has been a preferred method for revisional surgery of failed VBG, also it should be noted that the remaining mesh could create serious problems in revisional procedures.

CONCLUSION

Revisional surgery that requires the release of the mesh can cause serious complications. Therefore, gastric bypass should be the first choice to prevent complications resulted from the remaining mesh for failed VBG.

Informed Consent: Written informed consent was obtained from patient who participated in this case.

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