



Laparoscopic Adjustable Gastric Banded Plication with Prolapsed Gastric Folds Mimicking a Gastric Tumor

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Case Report

A 45-year-old female with a body mass index of 35.1 kg/m² underwent laparoscopic adjustable gastric banded plication (LAGBP) for obesity. The preoperative esophagogastroduodenoscopy (EGD) revealed no intragastric lesion and campylobacter-like organism test revealed no *Helicobacter pylori* infection. One year after operation, her body mass index dropped to 26.5 kg/m² and her hemoglobin level was 11.1 g/dL. Postoperative follow-up EGD revealed one 4-cm soft mass on the plication fold in the upper body (Fig. 1). However, she was lost to follow-up. She experienced epigastric pain and passed some blackish stool intermittently during four years after operation and recently visited another hospital, where gastric tumor was diagnosed and total gastrectomy was suggested. Therefore, she returned to our hospital for a second opinion. Physical examination revealed pale conjunctiva and mild tenderness on palpation in the epigastric area. The laboratory examination revealed: hemoglobin, 7.2 g/dL (normal range 12.0 – 16.0 g/dL); platelet count, 224,000/mL (normal

range 150,000 – 400,000/mL); and prothrombin time, 10.7 s (control, 10.1 s). EGD revealed one 6-cm firm, lobulated tumor with ulcers on the plication fold at the fundus and upper body (Fig. 2). Histologic examination of biopsies from the tumor revealed chronic inflammation.

Contrast-enhanced abdominal computer tomography (CT) imaging revealed a large lobulated mass in the lumen of the gastric fundus

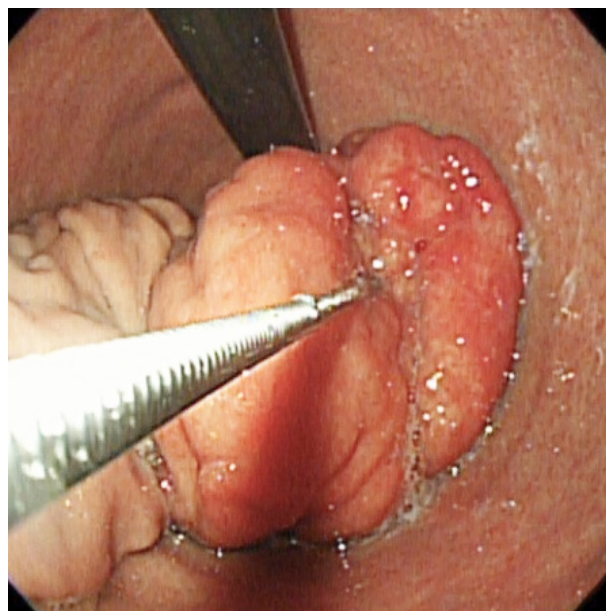


Fig. 1 EGD showed one 4-cm soft mass on the plication fold in the upper body one year after operation.

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and upper body (Fig. 3, arrow). The omentum extended into the centrum of the mass as a fat-density focus (Fig. 3, arrowhead). According to the serial endoscopic findings and CT imaging, a benign process instead of a malignant gastric tumor was suspected. Therefore, removal of the band and plication sutures was done laparoscopically. The postoperative course was uneventful. Follow-up EGD two months after revision operation revealed that the mass became smaller and soft. In addition, its surface was similar to the plication folds (Fig. 4). Her hemoglobin level also increased to 12.2 g/dL. Finally, LAGBP complicated with prolapsed folds was diagnosed.

LAGBP combines gastric banding with greater curvature plication (GCP) and may present complications similar to those in GCP.¹ The rate of major complication after GCP was 4.4%, and common causes of reoperation after GCP include gastric obstruction, leak, and gastric fistula.² Gastric obstruction caused by fold prolapse after GCP has been reported.³ However, the present instance is the first case of a prolapsed fold mimicking gastric tumor after LAGBP and was reversed after removal

of the band and plication sutures. With the increased prevalence of obesity, the number of bariatric surgeries is rapidly expanding.



Fig. 3 Abdominal CT revealed a large lobulated mass in the lumen of the gastric fundus and upper body (arrow) and the omentum extended into the centrum of the mass as a fat-density focus (arrowhead).

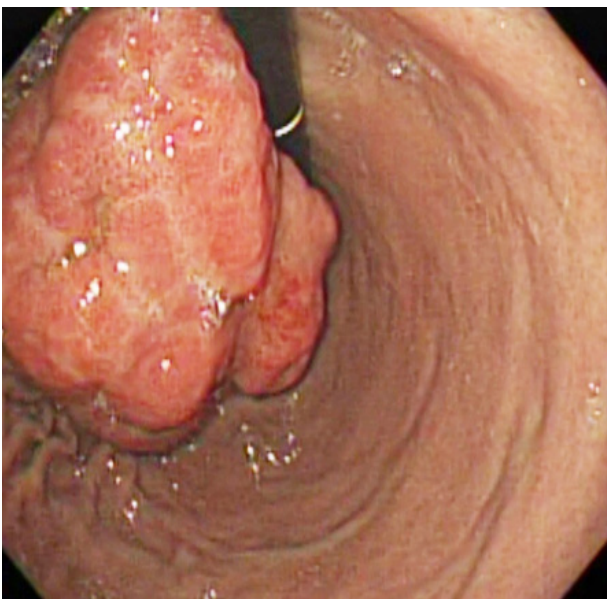


Fig. 2 EGD showed one 6-cm firm, lobulated tumor with ulcers on the plication fold at the fundus and upper body four years after operation.

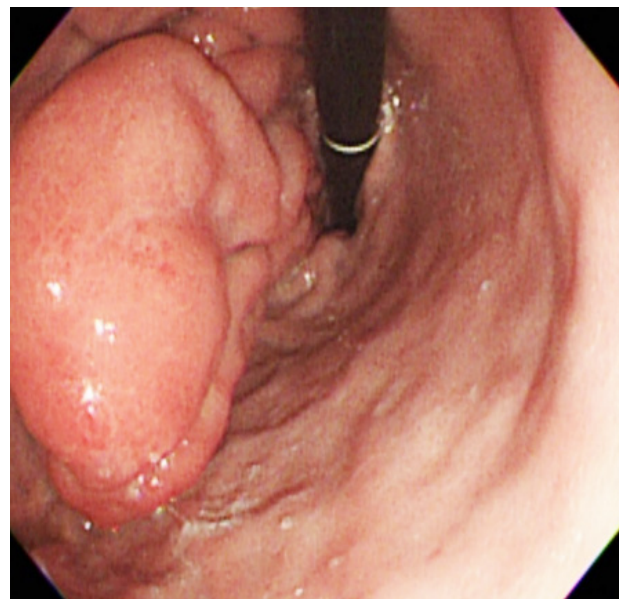


Fig. 4 Follow-up EGD two months after removal of the band and plication sutures revealed that the mass became smaller and soft.

Diagnosis and management of complications after bariatric surgery are challenging for both surgeons and gastroenterologists. In this case, the prolapsed fold was initially diagnosed as a gastric tumor, and total gastrectomy was even suggested. Endoscopic ultrasonography can be used to evaluate a gastric tumor. However, according to the CT findings, EUS may only reveal a large heteroechoic tumor in this case and this does not add more information about the nature of the tumor. The most important clue is the serial endoscopic findings, the gastric tumor seemed more likely to be a benign process, and the treatment strategy was modified. Thus, gastroenterologists must remain vigilant regarding potential complications after bariatric surgery.

Author Contributions

Study Design, Chi-Ming Tai; Data Collection, I-Sung Chen and Chi-Ming Tai; Manuscript Preparation, I-Sung Chen and Chi-Ming Tai; Literature Search, I-Sung Chen. All authors have read and agreed to the published version of the manuscript.

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Institutional Review Board Statement

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Informed Consent Statement

Patient consent was waived due to no information that could identify the patient.

Data Availability Statement

Not applicable.

Conflicts of Interest

The authors declare no conflict of interest.

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