

Marginal ulcer perforation following laparoscopic roux-en-y gastric bypass

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ABSTRACT

Morbid obesity is a major problem of our age with increasing frequency and high comorbidities. It is associated with many chronic diseases and vascular diseases that can result in death. Laparoscopic Roux-en-Y Gastric bypass is one of the accepted safe surgical methods for long-term weight control and reduction of comorbidities in the treatment of obesity. Marginal ulcers are one of the long-term complications seen after this surgery and are not very common. In this case report, we aimed to present a marginal ulcer perforation that developed in a patient who had previously undergone gastric bypass surgery for obesity.

Keywords: Laparoscopic roux-en-Y gastric bypass, Marginal ulcer, Morbid obesity

Introduction

Morbid obesity is a complex disease that has a constantly increasing incidence.^[1] It is a major risk factor for many chronic diseases such as cardiovascular and cerebrovascular diseases, which are among the leading causes of death.^[1] It is associated with morbidity, mortality, and economic problems.^[2] For the reasons mentioned above, many treatment options have evolved to treat morbid obesity such as diet and lifestyle modifications, pharmacotherapy, endoscopic, and surgical interventions.^[2]

Laparoscopic Roux-en-Y gastric bypass (LRYGB) is one of the surgical interventions to overcome morbid obesity which is safe, provides reduction of comorbidities, and a sufficient long-term weight and diabetes control.^[3] The marginal ulcer is among the uncommon and long-term complications of this procedure.^[4,5] Despite marginal ul-

cer is generally seen after gastrectomy with Billroth 2 reconstruction on the jejunal side of the anastomosis, it was reported to occur in 0.6–16% after LRYGB.^[6] In this study, we aimed to present a case of marginal ulcer perforation after LRYGB.

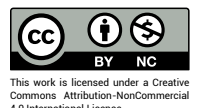
Case Report

A 37-year-old male patient was admitted to the emergency service with complaints of abdominal pain and nausea-vomiting continuing for 3 days. He had no comorbidity and was an active smoker with a history of 17 years smoking. He had undergone LRYGB 3 years ago due to morbid obesity and then three other operations (two with laparoscopy and one with laparotomy) due to internal herniation. Physical examination revealed tenderness and defense in the epigastric region. An abdom-



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inal X-ray showed free air in the abdomen (Fig. 1). Abdominal computed tomography revealed intraperitoneal free air, and fluid in the pelvis (Fig. 2). Urgent surgery was planned for the patient. In the operation, a marginal ulcer perforation was detected at the previous gastrojejunostomy anastomosis and primary repair was performed. The patient was followed in the intensive care unit for 2 days and was discharged on post-operative day 6 uneventfully.

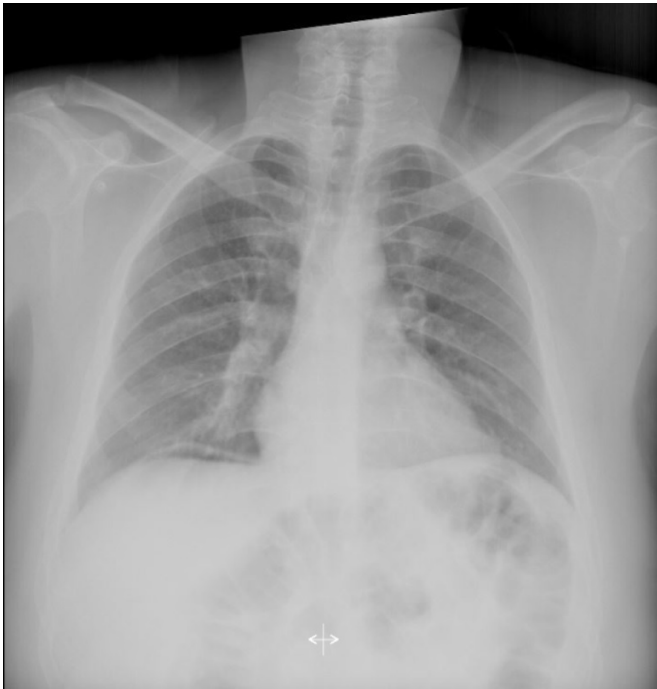


Figure 1. Abdominal X-ray showing subdiaphragmatic free air.



Figure 2. Abdominal computed tomography demonstrating intraperitoneal free air.

Discussion

The Roux-en-Y gastric bypass (RYGB) is a common bariatric surgical procedure and is thought to be the gold standard.^[7] Along with its benefits on obesity and related morbidities, it may also cause some complications. Anastomotic stricture, fistula, gallstone, dumping syndromes, nutritional deficiencies, and marginal ulcers can be faced after RYGB.^[8]

The most common complaints of marginal ulcers following LRYGB are bleeding (occult or acute), abdominal pain, nausea, and vomiting.^[9] It was emphasized that upper gastrointestinal endoscopy was the gold standard in the diagnosis of marginal ulcers following LRYGB.^[10] We recommend that in patients with symptoms mentioned above after LRYGB, the marginal ulcer should be kept in mind, and then an upper gastrointestinal endoscopy should be performed if necessary.

The etiology of these types of ulcers includes increased gastric acidity, non-steroidal anti-inflammatory drugs, smoking, alcohol, stress, *Helicobacter pylori*, gastrogastric fistula, increased anastomotic tension, anastomotic ischemia, non-absorbable suture usage, and large remnant volume.^[9] It was specially stated that smoking was a major risk factor for the occurrence of marginal ulcers and it was recommended to quit smoking before bariatric surgery.^[11] For this case, we also think the fact that the patient was a long-time and current smoker is the main factor for marginal ulcer occurrence. For this reason, patients who underwent LRYGB should be encouraged and supported to quit smoking to prevent this complication.

Conclusion

Marginal ulcers can occur following LRYGB. It may emerge as an acute surgical problem or may cause chronic problems for patients. It should always be kept in mind for patients with previous LRYGB especially if there are risk factors for this complication to occur.

Disclosures

Informed Consent: Written informed consent was obtained from the patient for the publication of the case report and the accompanying images.

Peer-review: Externally peer-reviewed.

Conflict of Interest: None declared.

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