# A case of postoperative hemorrhaging after revisional sleeve gastrectomy for gastric plication

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## Introduction

Patients undergoing gastric plication achieve consistent and measured short-term success during the initial 12–24 months post-op. However, it is essential to note that at least 40% of these patients eventually fail to achieve their weight-loss goals within 3–5 years [1]. Sleeve gastrectomy is a more reliable and durable operations and can performed as a revision operation following reversal of the plication [2]. Few reports have described revisional sleeve gastrectomy for gastric plication, and none have mentioned its perioperative complications. We report a case of postoperative hemorrhaging after revisional sleeve gastrectomy.

## Case presentation

A 48-year-old woman underwent gastric plication at another institution 10 years ago. She was 158.2 cm tall, weighed 117.3 kg, had a body mass index of 47.9 kg/m2, and was being treated for type 2 diabetes mellitus. Upper gastrointestinal endoscopy showed gentle elevation of the greater curvature from the antrum to the fundus. and computed tomography (CT) revealed fatty liver.

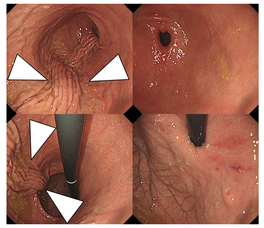


**Fig. 1 Preoperative endoscopy**



**Fig. 2 Preoperative CT**

Laparoscopic revisional sleeve gastrectomy was performed using a 37.5-Fr bougie. Intraoperative findings showed little invagination of the gastric wall (Fig. 3a), so gastric transection was performed without reversing the plication. However, the gastric wall was hard, especially at the incisura angularis (Fig 3b), and the staple line bled after transection (Fig. 3c), hampering hemostasis (Fig. 3d). The staple-line bleedings were finally controlled with sero-serosal running sutures with nonabsorbable material (Fig. 3e).

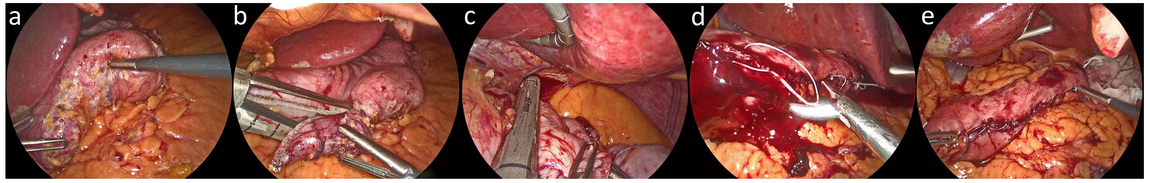



**Fig. 3 Intraoperative findings**

On postoperative day (POD) 1, postoperative upper gastrointestinal series showed no stenosis or leak (Fig. 4). However, hemoglobin decreased by 3 g, and CT showed perisplenic hematoma (Fig. 5). We transfused 4 units of packed red blood cells, but reoperation was unnecessary. The patient was discharged on POD 3 as the hemoglobin level did not decrease after blood transfusion. Three months postoperatively, weight loss was 25 kg without any complications.



**Fig. 4 Postoperative upper GI series**

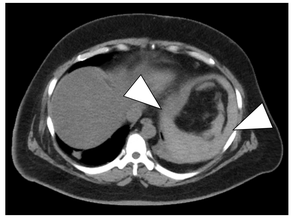


**Fig. 5 Postoperative CT**

## Discussion

The distance from the bougie must be carefully secured when performing sleeve gastrectomy, especially at the incisura angularis. However, in this case, the plication was not reversed, and the stomach at the incisura angularis was transected in the thick part affected by the plication. This might have resulted in insufficient staple formation, leading to postoperative bleeding. When revisional sleeve gastrectomy is performed after plication, the plication must be reversed [3], especially at the incisura angularis. This will also avoid other operative complications such as staple-line leak and sleeve stenosis.

## References

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