

## A rare cause of anastomotic stricture after distal gastrectomy: management with an endoscopic scissor



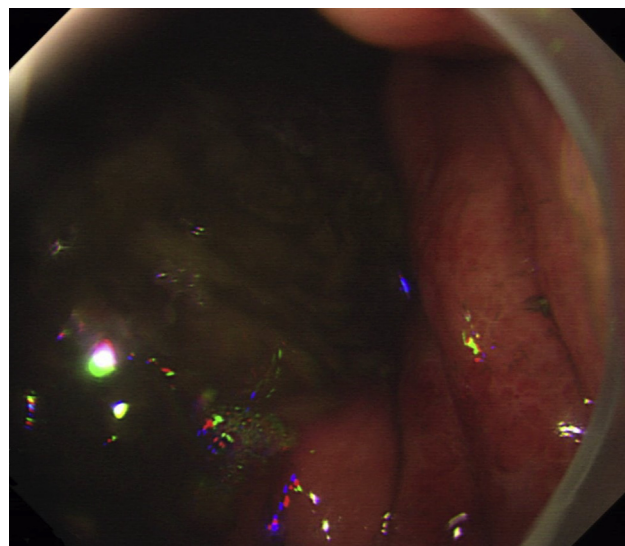
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Delayed gastric emptying (DGE) can commonly be considered after subtotal gastrectomy. It is characterized by nausea, vomiting, and gastric atony and the absence of mechanical obstruction.<sup>1</sup> Postoperative DGE is not fatal but often results in prolonged length of hospitalization, increased medical expenses, and reduced quality of life. The cause of DGE has not been identified, nor has its mechanism been clarified. Therefore, a careful history and physical examination remain key to diagnosis, although anatomic problems must be excluded, such as anastomotic stricture and jejuno gastric intussusception.<sup>2</sup>

A 50-year-old man underwent total laparoscopic distal gastrectomy with uncut Roux-en-Y gastrojejunostomy for gastric antrum cancer in our hospital. He experienced progressive symptoms 1 week after operation, including nausea, heartburn, acid regurgitation, and vomiting after eating. Upper GI imaging showed DGE and gastric retention (Fig. 1). Gastroscopy revealed severe edema of the anastomotic stoma, and the gastroscope passed with difficulty (Figs. 2 and 3). To enhance nutrition, a nasojunal feeding tube was implanted deep beyond the anastomotic stoma (Fig. 4).



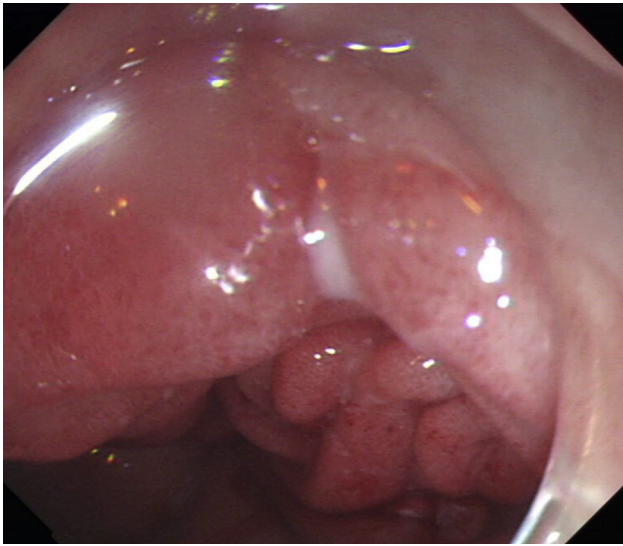
**Figure 1.** Upper GI imaging showed delayed gastric emptying.



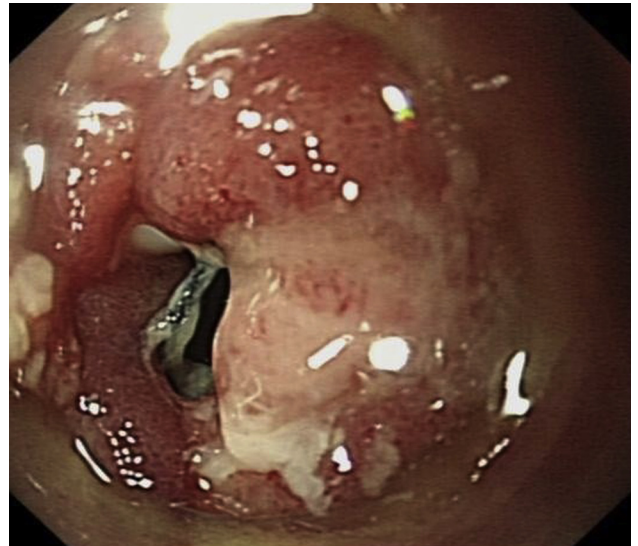
**Figure 2.** Gastroscopy showed gastric retention.

One month later, gastroscopy revealed that edema of the anastomotic stoma had decreased significantly. However, symptoms did not improve markedly. DGE was considered, and various treatments were simultaneously used to regulate intestinal activity, including points acupuncture, acupoints moxa-moxibustion, low-frequency electroacupuncture, prostigmine injection, and so on. However, symptoms remained unalleviated another month later. Therefore, another cap-assisted gastroscopy was performed, and residual sutures that connected the bilateral sides of the intestinal wall were found at the distal end of the anastomotic stoma. The sutures were thought to be the main cause of anastomotic stricture. Endoscopic scissors were used to cut and remove the sutures (Figs. 5 and 6). Afterward, the endoscope passed smoothly into the distal intestinal lumen (Video 1, available online at [www.VideoGIE.org](http://www.VideoGIE.org)). The patient's symptoms were significantly relieved after the procedure.

In this case, the patient could be easily considered as having postoperative DGE in light of these intractable symptoms until the anastomotic stricture was discovered to arise from residual sutures, as confirmed by gastroscopy. This will supply new evidence and new ideas for the diagnosis of cases showing DGE symptoms.



**Figure 3.** Gastroscopy showed severe edema of the anastomotic stoma.



**Figure 5.** Gastroscopy showed anastomotic stricture caused by a residual suture.



**Figure 4.** Fluoroscopy showed the nasojejunal feeding tube deep beyond the anastomotic stoma.



**Figure 6.** Gastroscopy showed the removed suture.

## DISCLOSURE

*All authors disclosed no financial relationships.*

*Abbreviation: DGE, delayed gastric emptying.*

## REFERENCES

1. Traverso LW, Hashimoto Y. Delayed gastric emptying: the state of the highest level of evidence. *J Hepatobiliary Pancreat Surg* 2008;15:262-9.

2. Kim YH. Management and prevention of delayed gastric emptying after pancreaticoduodenectomy. *Korean J Hepatobiliary Pancreat Surg* 2012;16:1-6.

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