

Case Report

Single Balloon Enteroscopy-assisted Balloon Dilatation of Roux-en-Y Jejunojejunostomy Stricture

Murali Krishna Palakurthy, L. R. S. Girinadh, Bhaskar Rao Uppala, Sravan Kumar Korrapati

Department of
Gastroenterology,
King George Hospital,
Visakhapatnam,
Andhra Pradesh, India

ABSTRACT Total gastrectomy with Roux-en-Y esophagojejunostomy is a procedure commonly performed for gastric cancer patients. Postoperative stricture at esophagojejunostomy site is commonly reported, but a stricture at jejunojejunostomy site is rarely reported. We report a rare case of stricture at Roux-en-Y jejunojejunostomy site which was managed successfully by endoscopic intervention.

KEYWORDS: *Enteroscopy, Roux-en-Y jejunojejunostomy, stricture*

INTRODUCTION

Gastric cancer is a major problem worldwide. It is the second leading cause of cancer death, affecting approximately 1 million individuals/year^[1] and surgical resection remains the only curative treatment option. A patient with total gastric resection may undergo various reconstructions. The method of choice for reconstruction after total gastrectomy for gastric carcinoma still remains controversial.^[2] Roux-en-Y esophagojejunostomy is the most commonly done procedure in this setting as it is relatively simple to perform and prevents reflux esophagitis.

Various postoperative complications following Roux-en-Y esophagojejunostomy are described. We report our experience with stricture at jejunojejunostomy site which was successfully managed with single balloon enteroscopy.

CASE REPORT

A 40-year-old female patient presented with a history of 4–5 episodes of nonbilious vomitings per day for 45 days. There was no history of abdominal pain, fever, abdominal distension or melena. Bowel habits were normal. She underwent laparotomy for gastric malignancy with total gastrectomy, esophagojejunostomy, and Roux-en-Y anastomosis 1½ year back. Her routine blood investigations showed hemoglobin of 11.2 g%, total leukocyte count of 9500/mm³, and platelet count of 2.5 lakhs. Renal function and liver function tests were within normal limits.

Barium meal follow through [Figure 1], and upper gastrointestinal endoscopy [Figure 2] showed postesophagojejunostomy status, one blind end loop, and the other loop showed prominent folds with dilatation. Proximal small bowel loops were dilated. Contrast-enhanced computed tomography abdomen showed short segment asymmetrical wall thickening of proximal jejunal loop with luminal compromise and dilatation of proximal portion of jejunal loop.

Single balloon enteroscopy (Olympus, SIF-Q180) was done for this patient, and it showed stricture at the Roux-en-Y jejunojejunal anastomotic site [Figure 3]. Dilatation was done with through the scope (TTS) balloon dilator (Olympus) up to 18 mm [Figure 4]. Postdilatation barium meal follows through showed the free passage of contrast into the small bowel [Figure 5]. Patient symptoms are improved, and she underwent one repeat dilatation after 1 month and now on follow-up.

DISCUSSION

Surgical treatment plays a predominant role in the management of patients with gastric carcinoma. Total gastrectomy is the most common surgical procedure, which can achieve adequate safety margins in relation to the tumor to offer patients a chance of cure. Various reconstructive procedures can be chosen after total

Address for correspondence: Dr. Sravan Kumar Korrapati, Department of Gastroenterology, King George Hospital, Andhra Medical College, Visakhapatnam, Andhra Pradesh, India.
E-mail: sravan8dham.skk@gmail.com

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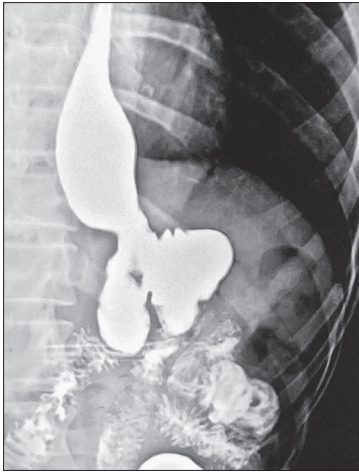


Figure 1: Barium meal follow through showing dilated esophagus and proximal bowel loops

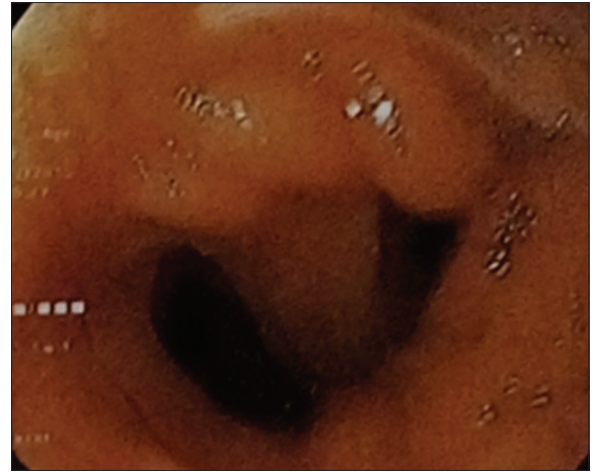


Figure 2: Esophagojejunal anastomotic site

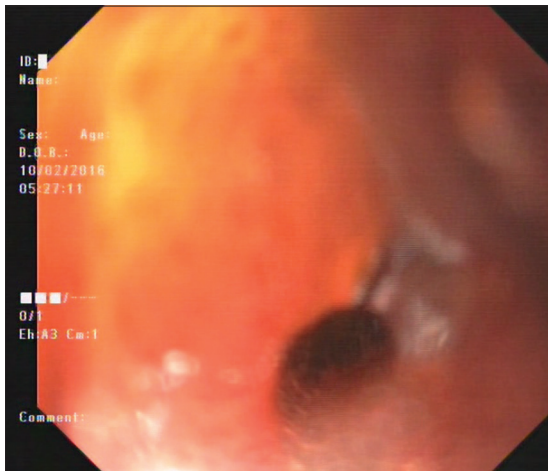


Figure 3: Narrowing of the jejunojunostomy site

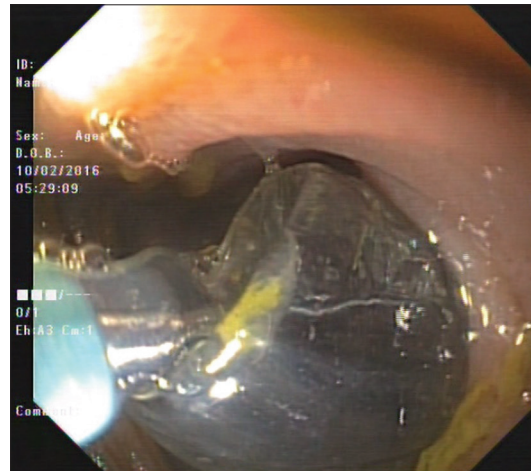


Figure 4: Jejunojunostomy site dilatation with through the scope balloon

gastrectomy.^[2,3-6] The optimal method of reconstruction after total gastrectomy would provide for a functional reservoir, preserve duodenal and jejunal continuity, and minimize postgastrectomy functional disturbance. No one reconstruction technique fulfills all these criteria.

Postoperative complications can be broadly grouped into early and late complications. By definition, early complications occur within the immediate perioperative period – the first 2-week postsurgery. Late complications arise after the second postoperative weeks. The early complications include anastomotic or staple line leak, postoperative hemorrhage, bowel obstruction, and incorrect Roux limb reconstruction. Late complications include anastomotic stricture, marginal ulcer formation, fistula formation, and nutritional deficiencies.

Stricture of the esophagojejunal anastomosis represents a well-described, long-term complication, with a

documented incidence ranging from 0.05% to 6%, with an incidence slightly higher if performed with mechanical staplers.^[7] Factors affecting the development of anastomotic strictures include tension or ischemia at the anastomosis and the healing capacity of individual patients. It has been noted that this complication is substantially more frequent with the laparoscopic than the open approach. Various treatment modalities have been described for the management of this anastomosis in published case reports, such as endoscopic balloon dilatation, argon plasma coagulation, YAG laser, endoscopic self-expandable metal stenting, and surgical revision.

However, stricture at the Roux-en-Y jejunojunal anastomotic site is rarely reported. We dilated the jejunojunostomy site stricture with TTS balloon up to 18mm. Follow-up barium meal showed the free passage of the contrast material into the small bowel.

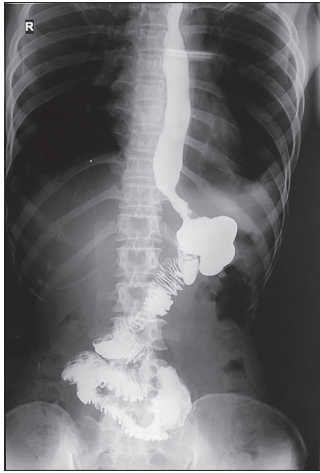


Figure 5: Barium meal follow through showing free passage of contrast into the small bowel

CONCLUSION

We are reporting a rare case of Roux-en-Y jejunostomy stricture managed endoscopically with TTS balloon. Endoscopic balloon dilatation is an effective treatment for benign anastomotic strictures after radical gastrectomy for gastric cancer and should be considered as a primary intervention before proceeding with surgical revision. The importance of

less invasive management is clearly highlighted in our case.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Kamangar F, Dores GM, Anderson WF. Patterns of cancer incidence, mortality, and prevalence across five continents: Defining priorities to reduce cancer disparities in different geographic regions of the world. *J Clin Oncol* 2006;24:2137-50.
2. Lehnert T, Buhl K. Techniques of reconstruction after total gastrectomy for cancer. *Br J Surg* 2004;91:528-39.
3. Lawrence W Jr. Reservoir construction after total gastrectomy: An instructive case. *Ann Surg* 1962;155:191-8.
4. Longmire WP Jr., Beal JM. Construction of a substitute gastric reservoir following total gastrectomy. *Ann Surg* 1952;135:637-45.
5. El Halabi HM, Lawrence W Jr. Clinical results of various reconstructions employed after total gastrectomy. *J Surg Oncol* 2008;97:186-92.
6. Chin AC, Espat NJ. Total gastrectomy: Options for the restoration of gastrointestinal continuity. *Lancet Oncol* 2003;4:271-6.
7. Adami AN, Roberto LL, de Souza CN. Postoperative complications after total gastrectomy in the gastric cancer: Analysis of 300 patients. *ABCD Arq Bras Cir Dig* 2011;24:126-30. [Last cited on 2016 Feb 22].