

Case Report

Perforation of old gastrojejunal anastomotic site presenting as acute abdomen: a case report

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ABSTRACT

Complications at the gastrojejunal anastomosis site after a bypass procedure is challenging in terms of diagnosis, therapy and prevention. Complications most frequently encountered are marginal ulcer, bleeding and stenosis, while perforation secondary to ulceration at anastomosis site is very rare and seldom reported. Direct exposure of gastric acid is the important cause of ulcer formation which may get further complicated by the use of NSAID's, alcohol intake and smoking. We report a case of 47-year-old male who developed perforation at the gastrojejunal anastomotic site of old gastrojejunostomy for peptic ulcer disease.

Keywords: Gastrojejunal anastomosis, *H. pylori*, Peptic ulcer disease, Perforation

INTRODUCTION

During the early 20th century, there was considerable interest in the surgical treatment of peptic ulcer disease where excision of a gastric ulcer was widely practiced. When the excision was extensive, there were problems with gastric emptying, prompting William Mayo in 1911 to add a complementary gastrojejunostomy.

Nowadays, the indication for surgical intervention in patients with peptic ulcer are obstruction, bleeding, perforation and intractability. Pyloroplasty and gastrojejunostomy were the most frequently performed procedures for obstruction, and as early as 1925 Lewisohn reported a 34% incidence of neostomal ulcer after gastrojejunostomy.¹

Anastomotic stenosis and marginal ulcer are by far the most common complications with incidence rates of 1-28% and 0.6-16% respectively.²⁻⁷ Here we report a case of 47-year-old male who developed perforation at the

gastrojejunal anastomotic site of old gastrojejunostomy for peptic ulcer disease.

CASE REPORT

A 47-year-old male patient presented to our emergency room with complaints of pain abdomen for three days which had increased in frequency for the past 10 hours associated with several episodes of bilious vomiting and obstipation for past 3 days. Patient had a past history of Truncal vagotomy and gastrojejunostomy done 25 years back for peptic ulcer disease. He was a chronic smoker and alcoholic for over 30 years. Clinical examination revealed tense abdomen with diffuse tenderness, absent bowel sounds and impacted stools on per rectal examination. X-ray erect abdomen showed air under the diaphragm and CT abdomen confirmed free intraperitoneal air-suggestive of hollow viscus perforation with distal ileum, caecum, ascending colon, transverse colon, rectum faecal loaded ileus. Emergency exploration done and approximately 1 litre of bile stained

fluid sucked out. Transverse colon found to be adherent to stomach with thick omental fat stranding. Adhesions released, and small bowel walking done from DJ flexure to caecum and no abnormality detected. On careful examination of stomach, a posterior gastrojejunostomy (GJ) was found and a perforation was found at the stoma site (efferent loop) (Figure 1).

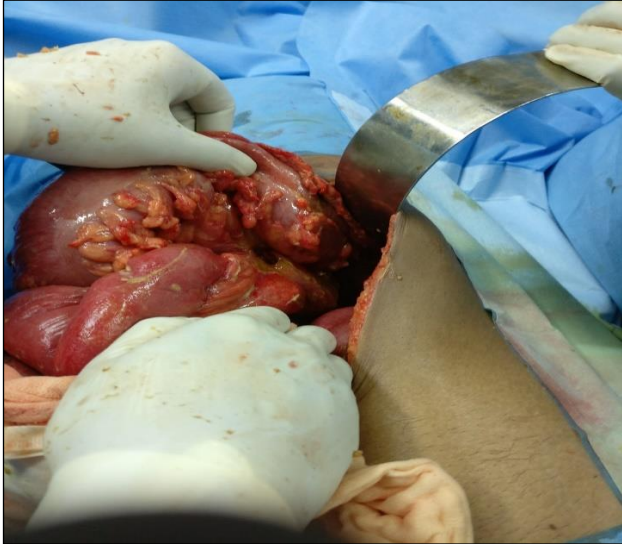


Figure 1: Perforation at the previous posterior GJ anastomotic site.

A perforation of 1×1 cm was found, biopsy taken from edges of perforation site, primary closure was done with omental patch closure. Following closure stomach was filled with 1 litre of normal saline and no leak was found. Abdominal drain placed, mass abdominal closure done and post-operative period was uneventful with patient tolerating orals well on 4th post-operative day. Histopathology report was suggestive of Chronic Gastric ulcer and negative for malignancy. Patient was started on anti-Pylori treatment and discharged. Patient was followed up every month with strict advice of cessation of smoking and alcohol. Endoscopy was done third month which showed no abnormality with patent GJ stoma without ulceration.

DISCUSSION

In 1920's it was Dragstedt who championed the modern concept of treatment of peptic ulcer disease by introducing the vagotomy, which was based on the better knowledge of the vagal drive for acid secretion in the stomach. In 1940's and 1950's the most common operation performed for peptic ulcer disease were truncal vagotomy with pyloroplasty and antrectomies. In the 1960s, recognition of complications such as post vagotomy diarrhoea led to development of proximal gastric vagotomy and the need for gastric emptying procedure.¹ In India, GJ is still the most commonly performed drainage procedure following vagotomy. Anastomotic stenosis and marginal ulcer are by far the

most common complications after gastrojejunostomy with incidence rates of 1-28% and 0.6-16% respectively. The presence of Helicobacter Pylori may additionally play a role in the development of ulceration and subsequently leading to perforation.⁴⁻⁷

The majority of these ulcers can be treated medically. However, a subset of patients will have intractable disease requiring surgery for definitive management as last resort. Patients with marginal ulcer are primarily treated with H2 blockers or proton pump inhibitors with strict advice of cessation of smoking.⁸ Patel et al reported 39 patients with intractable marginal ulcers whose primary signs and symptoms include chronic abdominal pain (66.6%), GI bleeding (20.5%), stomal obstruction (10.2%), and perforation (2.5%). A minority of these patients will present with acute abdomen and free perforation of ulcer must be ruled out. Perforation of GJA ulcers is uncommon and is associated with high morbidity; the incidence ranges from 0.25 to 1%. The risk factors for perforation are same as described for ulceration.⁹⁻¹²

CONCLUSION

Perforation of previous gastrojejunostomy site is a very rare condition and must be suspected when there is collection of pus or gastric content with no identifiable perforation on exploring the abdomen. A careful examination must be made intra operatively with release of adhesions to arrive at a diagnosis and locate the posterior perforation. When perforation is due to chronic ulceration freshening the edges of perforation and taking tissue for histopathological examination with primary omental patch closure is ideal method of choice in an emergency sitting.

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