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# A Rare Case of Gastrojejunocolic Fistula with Perforation in an Old Case of Gastrojejunostomy

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**Abstract:** ***Introduction**: Gastrojejunocolic fistula (GJF) is a late and very rare complication of gastroenterostomy performed for recurrent peptic ulcer disease. The occurrence of perforation in a GJF is even more a rare complication because long evolution time or latent period is required for its appearance. Patients with this condition usually present with diarrhea, weight loss, feculent vomiting, under-nutrition and features of peritonitis that require immediate surgical intervention **Case Presentation**: We report a case of 65 year old male with perforation in a gastrojejunocolic fistula following gastrojejunostomy for peptic ulcer disease 20 years back .Patient presented with acute pain in abdomen, weight loss, diarrhea as soon as having meals and signs of peritonitis. **Conclusion**: With surgery, this condition is entirely correctable. Pre-operative nutritional status should be evaluated in patients undergoing corrective surgery, and total parenteral nutrition plays a major role in the provision of bowel rest to allow recovery in malnourished patients.*

**Keywords:** Gastrojejunocolic fistula, perforation, gastrojejunostomy, stomal ulcer and peritonitis

## 1. Introduction

Gastrojejunocolic fistula (GJF) is a rare and late complication of gastrojejunostomy done for recurrent peptic ulcer disease. It was thought to be induced by a stomal ulcer, due to inadequate gastrectomy or incomplete vagotomy [1, 2]. Free perforation of a primary, benign, gastrocolic fistula is extremely rare; perforation of a gastrojejunocolic fistula has not been reported previously in the medical literature. As per the experience with Schein M two such cases were presented and the surgical management of this condition was emphasized [3].

The symptoms in these situations include upper abdominal pain, weight loss, diarrhea, gastrointestinal bleeding, and fecal vomiting [4]. These patients are cachectic and dehydrated, with labs showing malnutrition.

## 2. Case Report

A 65 year old male presented to casualty with complaints of acute pain abdomen and vomiting since 2 days in the background of anorexia and significant weight loss over the preceding 6 months. There was history of diarrhea on and off. No malaena or haematemesis. He had undergone surgery for peptic ulcer in 1995 (20 years back). He had no other significant co-morbidities. A poorly nourished patient presented in a setting of hypovolaemia with a weak pulse of 90/min and a BP of 90/60 mmHg, random blood sugar was 85mg/dl. A vertical midline scar was present over the abdomen and on examination presented with abdominal distension, tenderness with guarding present bowel sounds were absent and other systems were normal. Abdomen was diffusely tender and tense. X-Ray abdomen was done and it revealed gas under the diaphragm s/o pneumoperitoneum. The patient was prepared for an exploratory laparotomy.

## 3. Management

On exploration we found gastrojejunocolic fistula with colon a big perforation with severe peritonitis. In the view of poor general condition of the patient and unprepared colon proximal transverse colon was brought out as colostomy. We managed the case with exploratory laprotomy proceeds separation of gastrojejunal anastomoses with primary closure of stomach with jeujunojeujanal anastomoses through peritoneal lavage. Patient discharged after 12 days of surgery. Patient required intravenous protein supplementation in post operative period.

## 4. Histopathological Report

Acute on chronic non specific inflammation with peritonitis


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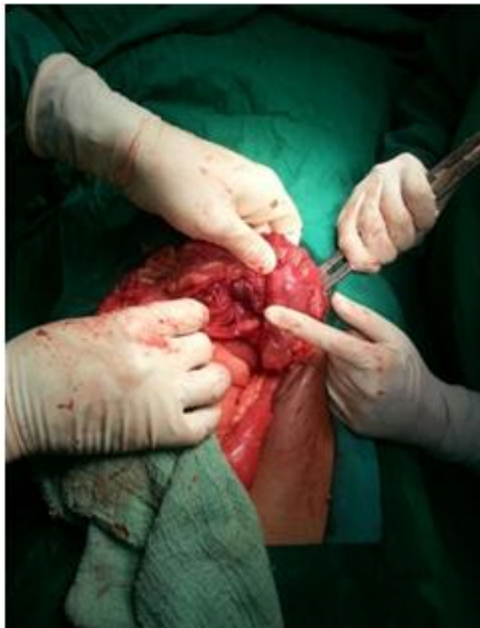

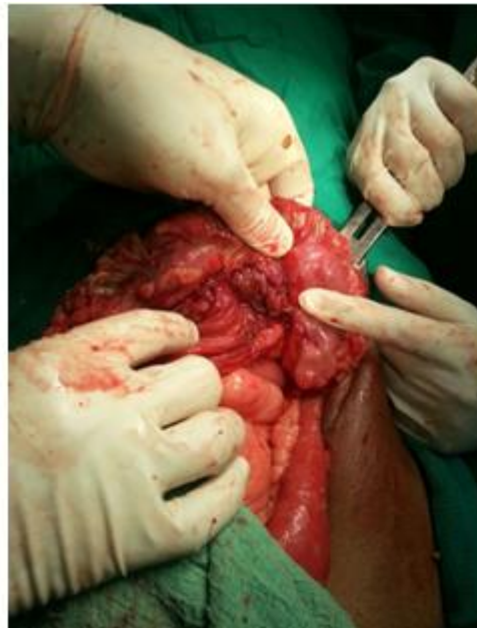

## 5. Discussion

Gastrojejunocolic fistula is an uncommon late complication after gastrojejunostomy for peptic ulcer or malignant gastrointestinal diseases [5, 6]. This fistula is thought to occur due to inadequate gastrectomy, simple gastroenterostomy, or inadequate vagotomy. In the past, this complication was associated with high mortality because of the poor nutritional status of patients with a GJC fistula. Divided operations have been indicated in order to decrease post-operative mortality [5, 7]. Recently, the incidence of such fistulas has been decreased dramatically due to treatment of peptic ulcers with H2 receptor antagonists, proton pump inhibitors and eradication. Regimens for Helicobacter pylori and the limitation of surgical treatment in extreme cases [8,9]. However, the fistula can develop one to 20 years after gastrectomy [5].The typical symptoms of GJC fistula are diarrhea and Weight loss. Marshall and Knud-Hansen reported that both these symptoms were present in 80% and 82% of Patients [6]. Other less common symptoms in GJC fistula are fecal vomiting or fecal breath, and weakness. In our case, fecal vomiting was not noted, but weight loss and immediate diarrhea after oral intake suggested GJC fistula.Laboratary findings commonly reflects severe malnutrition and dehydration with electrolyte imbalance, diminished serum proteins and vitamin deficiencies. A mild to moderate anemia may be present which may not be observed because of hemoconcentration [10]. Due to the poor nutritional status of patients with GJF, operative mortality following surgical repair used to be as high as 40%. Staged repair of GJF, with preliminary diversion colostomy, was favored to minimize mortality [11, 12, 13, 14]. The nature of the fistula tract varied, and a computed tomography scan may supplement both this information (and demonstrate pathology such as an abscess, cancer or ulcer) and that of the anatomy adjacent to the fistula. Endoscopy may also be a helpful tool in establishing the diagnosis, and can exclude other GI disease. Nussinson etal. [15] Previously found that simultaneous examination using gastroscopy and colonoscopy was useful in the diagnosis of GJC fistulae. In our cases, neither gastroscopy nor colonoscopy was done. As patient presented with perforation. TPN is a crucial factor for recovering the patient's malnutrition status and so should precede surgery.

## 6. Conclusion

GJF is a rare complication of gastric surgery for APD and must be kept in mind whenever a patient comes with a history of faeculent vomiting, significant weight loss and diarrhea. Diagnosis is almost always made by a UGI endoscopy and can be confirmed by histological examination of the fistula. Perforation in GJF is extremely rare condition and presents with features of peritonitis. High index of suspicion is required to diagnose perforation in GJF. The patient almost always has severe nutritional and electrolyte imbalances and thus these must be corrected along with the reparative surgery, which involves adequate resection and primary anastomosis in a single-stage procedure. In our case the final histopathology report showed chronic peptic ulcer at GJ stoma with perforation, with chronic inflammatory changes in adherent small intestine and colon, with no e/o malignancy .Off- late the incidence of GJF is becoming increasingly rare due to the advances in medical management of APD. GJF still remains a rare and interesting complication particularly in areas where gastric surgery was the primary modality of treatment few years back.

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