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Case Report

Retrograde jejunogastric intussusception; varied clinical and endoscopic presentation: A cases series

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Abstract

Retrograde jejunogastric intussusception is a rare complication of gastric surgery. Approximately 250 cases have been reported till now. It has varied clinical and endoscopic presentations. Since gastrojejunostomy with vagotomy are on a declining trend, it is extremely rare to come across such a complication. The condition can be acute and life threatening or chronic and disabling. We report four such cases with different endoscopic and clinical presentations.

Key words

Gastrectomy, gastrojejunostomy, retrograde jejunogastric intussusceptions

Introduction

Jejunogastric intussusception (JGI) is a rare, very serious complication of gastrojejunostomy or Billroth II reconstruction. Since gastrojejunostomy with vagotomy is on a declining trend, it is extremely rare to come across such a complication. Only about 250 cases have been reported in literature till date. The condition is not difficult to diagnose if an endoscopy is performed by someone familiar with this complication. The condition can be acute and life-threatening or chronic and disabling. We report four such cases with different presentations.

Case Reports

Case 1

A 65-year-old female presented to emergency department with pain abdomen and hematemesis. Clinical examination revealed that patient was in hypotension with blood pressure of 90/60; she was dehydrated and looked in distress. Systemic examination revealed epigastric tenderness, guarding, and a vague fullness. Baseline investigations revealed anemia, leukocytosis, and prerenal azotemia. Upper gastrointestinal (GI) endoscopy [Figure 1] showed a large loop of edematous, erythematous, and bluish-red jejunal loop intussuscepting into the stomach through anastamosis. Computed tomography (CT) scan confirmed the diagnosis and ruled out any other intra-abdominal pathology. An emergency laprotomy was performed, and the patient was managed by resection of unhealthy part of jejunum and redo gastrojejunostomy.

Case 2

A 60-year-old male presented with recurrent vomiting for 10 days. He was managed in a peripheral hospital with intravenous (IV) fluids and IV proton pump inhibitors without relief. His clinical examination revealed normal general physical examination, midline incisional scar, and exaggerated bowel sounds. His baseline investigations revealed normal hemogram, prerenal azotemia, and hypokalemia. His upper GI

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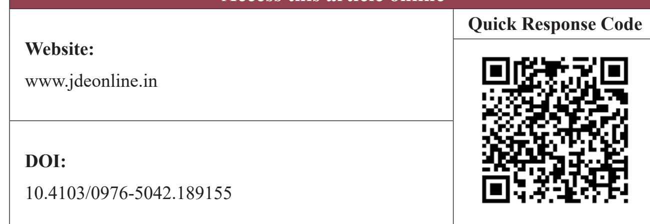

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endoscopy [Figure 2] revealed a long jejunal loop in stomach. His CT scan also showed small bowel loops in the stomach. This patient was electively operated and a repeat endoscopic examination after 2 months of follow-up revealed a normal post gastrojejunostomy status.

Case 3

A 90-year-old tribal man operated 25 years back for some stomach ailment was referred for upper GI endoscopy by a surgeon in view of long-standing dyspepsia which was not responding to treatment. His Endoscopic picture is shown in Figure 3. He did not agree for further evaluation.

Case 4

A 62-year-old female with intermittent pain abdomen and vomiting referred for evaluation. In past patient was operated for duodenal ulcer disease. Her baseline investigations were normal. Upper GI endoscopy [Figure 4] reveals jejuno-gastro-jejunal intussusceptions (type 3 RJGI) which got reduced by hyperinflation of stomach. This patient is on follow-up without any fresh symptoms.

None of our patients had undergone Bilroth II gastrojejunostomy. All our patients had undergone gastrojejunostomy as part of drianage procedure postvagotomy.

Discussion

First case of retrograde JGI following gatrojejunostomy was reported by Bozzi[1] in 1914. It is pertinent to mention that the first successful gastroenterostomy (gastroduodenostomy) was carried out by Theodor Billroth in 1881. It was performed in a patient with carcinoma of the stomach following partial gastrectomy.[2] The first review appeared in New England Journal of Medicine in 1929[3] and many case reports have been published since then. Approximately, 250 cases have been reported in the literature till date.[4] Retrograde JGI is a rare complication following gastrojejunostomy or Billroth II reconstruction.

There are three anatomical types of JGI. Type I involves intussusception of afferent loop and occurs in 15% of patients. Type II in which efferent loop of jejunum prolapses into

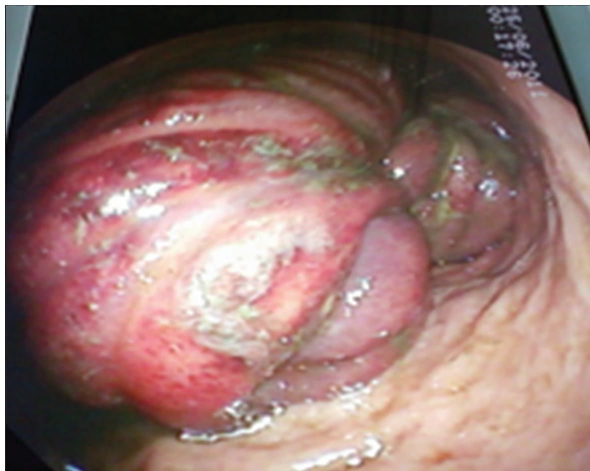

Figure 1: Case 1 - Endoscopic Image showing Inflamed, Edematous and discoloured Jejunal loops in stomach

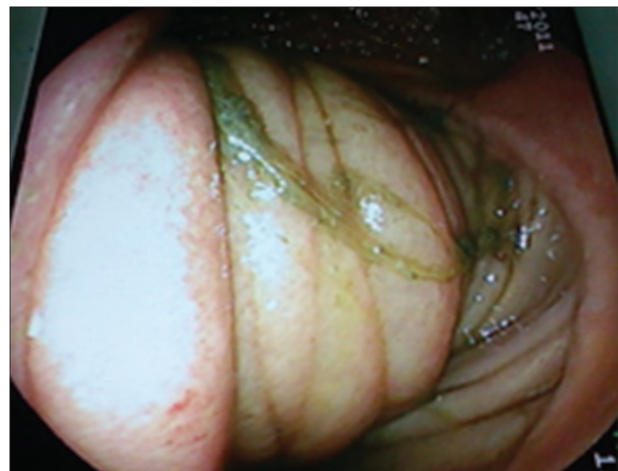

Figure 2: Case 2 - Jejunal loops in stomach

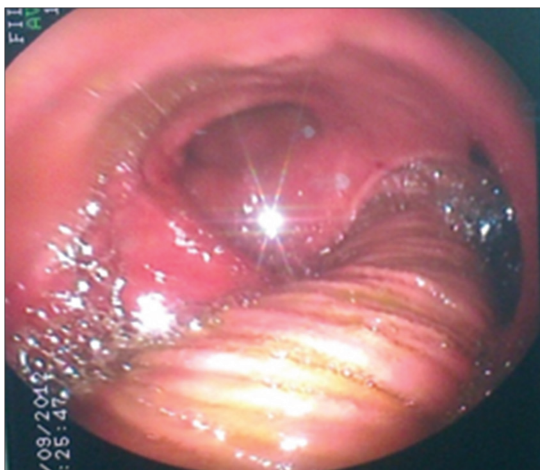

Figure 3: Case 3 - Long jejunal loops in stomach

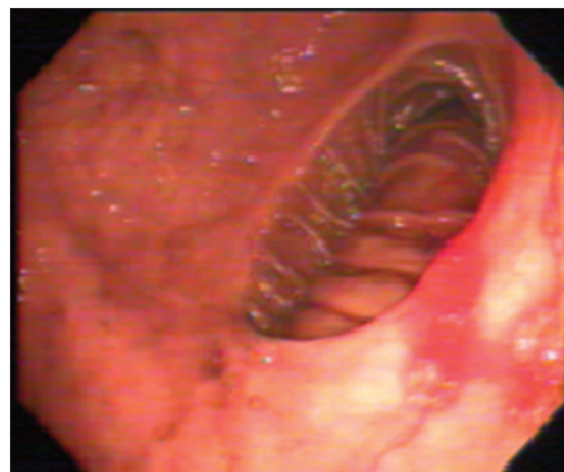

Figure 4: Endoscopic image showing jejuno-gastro-jejunal intussusception (type III)

stomach is the most common type of JGI (75%). In 10% both afferent and efferent loops are involved (type III).[4]

There are two clinical types of JGI; acute and chronic. Acute type has two clinical varieties.[5] In first variety, patient develops sudden onset epigastric pain followed by sensation of severe constriction of abdomen. There is visible peristalsis and an abdominal mass may be palpable. Early surgical intervention is life-saving. Second clinical variety resembling bleeding anastamotic ulcer, dumping syndrome, or obstruction due to adhesions. Vomiting followed by hemetemesis is main presentation. As these patients are managed conservatively for some time, delay in surgery causes more morbidity and mortality.[6] Chronic type of retrograde JGI is characterized by recurrent bouts of pain abdomen, nausea and vomiting and sometimes upper abdominal discomfort only. Occasionally, the patient has intermittent intractable vomiting. Upper GI endoscopy during the attack is diagnostic.[4,7] What causes Retrograde Jejunogasric Intussusception is not known; however, possible factors include: Hyperacidity, long afferent loop, jejunal spasm, increased intra-abdominal pressure and retrograde peristalsis. The presentation of JGI varies according to the type and clinical variant of JGI, ranging from asymptomatic, incidental finding on upper GI endoscopy to massive gut gangrene.[8-12] Sudden onset epigastic pain, vomiting and subsequent hemetemesis and a papable epigastic mass in a patient with previous gastric surgery are a classical traid of symptoms of JGI.[13] There is wide variation in lapse time between gastric surgery and JGI ranging from 6 days to 20 years in gastroenteric anastamosis and 8 days to 19 years in patients with partial gastrectomy.[8]

Diagnosis of JGI may be easy in some cases if the presentation is typical and physician is sensitized about the condition. In acute cases, a standing and decupetus X-ray series followed by water soluble upper GI contrast (coiled spring in the stomach) may be of help. Upper GI endoscopy is diagnostic and visualizes jejunal loops in stomach.

Conclusion

Retrograde JGI is a rare complication of gastric surgery. Approximately, 250 cases have been reported until now. Clinical suspicion in a case of previous gastric surgery and an early Upper GI endoscopy is important. Early referral to surgery decreases both morbidity and mortality. As gastrojejunostomies were frequently done two decades back in our set up, we still come across such complications and should be sensitized about the condition.

Treatment of JGI is surgical. There is no medical management for this condition.

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Conflicts of interest

There are no conflicts of interest.

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