

Retrograde Jejunogastric Intussusception: A Case Report

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Abstract: Retrograde jejuno gastric intussusception is a rare acute abdominal condition where the small bowel loops get incarcerated and may get strangulated inside the stomach. We report one such rare case of a 60 year old male who had retrograde jejuno gastric intussusception following gastrojejunostomy. Retrograde jejuno gastric intussusception is a rare acute abdominal condition which is a rare complication after gastric surgery. The presence of a mobile mass associated with nausea and vomiting in a patient with previous history of gastric surgery is virtually pathognomic of acute retrograde intussusception. A high degree of suspicion is required for preoperative diagnosis of the case which should be followed by prompt surgery. Diagnosis of JGI was confirmed with Upper gastro intestinal endoscopy findings. After prompt resuscitation early surgery was done. Awareness of such complication, early diagnosis and prompt surgery can reduce the mortality of JGI. We report a case of Jejuno gastric intussusception, who was previously operated chronic duodenal ulcer.

Keywords: Retrograde intussusception, Acute abdomen, Gastro jejunostomy, Endoscopy

1. Introduction

Jejunogastric intussusception though uncommon is a serious life threatening complication that can occur after partial gastrectomy or gastrojejunostomy. The first case of this complication was described by Bozzi in 1914. A delay in diagnosis significantly increase the risk of mortality. Surgery is indicated for all patients of acute type, whereas the chronic type may or may not require operative intervention, depending on the severity of the symptoms. The aim of this report is to highlight the need for early diagnosis and prompt intervention in acute Jejunogastric intussusception.

2. Case Report

A 50 year old female patient presented to KIMS with complaints of acute abdominal pain, hematemesis since four days. He had undergone gastrojejunostomy and truncal vagotomy for chronic duodenal ulcer twenty years back. On physical examination, the patient was dehydrated with pulse rate of 108/minute, blood pressure of 100/60 mmHg and respiratory rate of 18/min. Abdominal examination revealed upper midline abdominal scar of previous laparotomy. Abdomen was tender and guarding present.

Laboratory investigations showed hemoglobin of 9.3 gm%. Chest abdomen X ray taken. After correction of dehydration and electrolyte imbalance, an upper gastrointestinal endoscopy was carried out which revealed an intussusception of small bowel at gastrojejunal anastomosis (figure 1).

UGI Endoscopy



Figure 1: Jejunogastric Intussusception

After initial treatment with intravenous fluids, nasogastric suction and antibiotics, exploratory laparotomy was carried out.

Operative findings

Peroperative finding was telescoping of the efferent loop of the jejunum into the stomach which appeared ischemic and gangrenous. It was impossible to reduce the telescoping loop. Stomach was explored by careful incision at the level of gastrojejunostomy stoma. The intussusceptum was gangrenous and length was about 15cm. The gangrenous segment was resected and bowel continuity was restored by Roux-en-Y anastomosis (fig 2.)

Post-operative recovery was smooth and patient was discharged on 10th post-operative day.

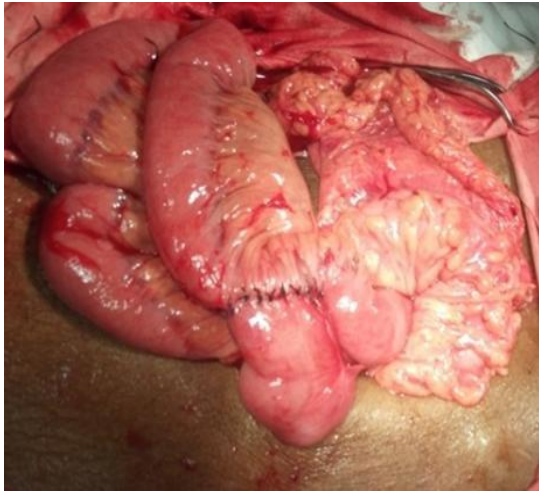


Figure 2: Roux-en-Y anastomosis

3. Discussion

Retrograde jejuno gastric intussusception is uncommon life threatening condition. Only 16 documented cases have been reported at the Mayo clinic (Rochester, Minn) during the past 72 years. The jejuno gastric intussusception has been reported after every type of gastroenteric anastomosis except Billroth I. Clinically JGI can be divided into two categories. Acute fulminant and chronic intermittent type. Acute form usually has five classic manifestations: severe colicky epigastric pain, vomiting, hematemesis, a palpable epigastric mass and high intestinal obstruction.. In chronic type of JGI, the patient usually experiences recurrent episodes of vague upper abdominal discomfort, usually confused with dumping syndrome or stomal ulcer. The chronic recurrent variety is more common. Three anatomic types of JGI have been described. Type I- afferent loop intussusception (antegrade); Type II-efferent loop intussusception (retrograde); type III-combined. Our patient had typeII JGI. The time interval between the gastric surgery and JGI is extremely variable. The shortest interval reported is 2 days and the longest 30 years with an average of 6 years. In our case 'lapse time' was 11 years. The factors held responsible for JGI include hyperacidity, long afferent loop, Jejunal spasm with abnormal motility, increased intraabdominal pressure and retrograde peristalsis. Among these, retrograde peristalsis is the most accepted precipitating factor. For early diagnosis, awareness of the condition and a high degree of suspicion are essential prerequisites. X ray studies, ultrasonographic examination, endoscopy, CT scan have all been described as useful diagnostic tests. Ultrasonographic examination may reveal distended stomach with loops of intestine within it. Jejunal loop can be identified on the basis of presence of volvulaeconnivents seen within it using high resolution probe.

In our case report sonologist reported distended stomach and loops. CT scan may reveal jejunal loop in the stomach with mesenteric vessel being pulled along with the intussusception. This imaging is diagnostic for type-II variety of JGI. In our report we did not take the opportunity for CT scan. Contrast x-ray of stomach may reveal distended stomach with filling defect. We could not perform the contrast x-ray because patient's physical condition did not permit such types of imaging study.

Gastroscopic examination is the important diagnostic tool. In our case endoscopist could find the gangrenous loop of jejunum with blood mixed fluid in the stomach. Diagnosis of chronic JGI can be difficult and challenging. For correct diagnosis, upper GI imaging should be performed during symptomatic period. It has been suggested that JGI can be precipitated during upper gastrointestinal endoscopy. Correct treatment is the surgical intervention as soon as possible. Surgical options include reduction, resection and revision of the anastomosis. Treatment of acute JGI is urgent surgery. Delay in surgery beyond 48 hrs is associated with an approximate 50% mortality. If the involved segment is viable, simple reduction and anchoring of the involved segment to neighboring Jejunal loop and to the transverse mesocolon is the treatment of choice. Gangrenous JGI demand resection anastomosis with revision of previous anastomatic stoma. In our patient, we performed resection of gangrenous segment and revision of anastomosis with Roux-en-Y pattern. In acute JGI early recognition and prompt surgery can reduce the high mortality.

4. Conclusion

The presentation of retrograde intussusception is very rare. Now a days surgery for chronic duodenal ulcer decreased due to PPI's. The patients who underwent surgery for chronic duodenal ulcer rarely complicates with retrograde jejuno gastric intussusception. So, we should a high index of suspicion is required for diagnosis of jejuno gastric intussusception. Early recognition of acute variant of jejuno gastric intussusception and prompt surgical intervention is the treatment of choice. To prevent recurrences, jejunum may be fixed to the adjacent tissues like mesocolon, colon or stomach.

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