CASE REPORT

Intussusception in the Afferent Limb of Gastrojejunostomy - Presenting as an unusual cause of Haematemesis

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Abstract

We report a case of a 54 year old male who presented with abdominal pain and hematemesis. After thorough workup, a laparotomy was done. It revealed an ante grade intussusception in the afferent limb of a gastrojejunostomy, which was done in 1978 presumably for peptic ulcer disease. In an attempt to find if such cases are still reported and under what circumstances, a Pub med search using: (intussusception) and (gastrojejunostomy or gastroentorostomy) was done and 170 publications were retrieved. Relevant articles were studied and discussed in this case report.

Case Report

A 54 year old gentleman presented to our emergency department with the chief complaints of hematemesis and abdominal pain for 3 days. He had history of a gastrojejunostomy done in 1978, presumably for peptic ulcer disease. He did not have regular primary health care, so no other co-morbidities were reported or revealed on inquiry. He was previously seen at an outside hospital where he had received conservative treatment with NPO and intravenous fluids. No nasogastric tube was inserted at that hospital. On admission, patient was ill looking and dehydrated. His blood pressure was stable at 130/80 mmHg, pulse 110/min. On examination, he was tender in his epigastric region with guarding and rigidity. His temperature was 99^0 F. Relevant admission labs were: Hemoglobin 14.2 gm/dL, WBC 10.9X109/L with 89% neutrophils, serum creatinine 1.37 mg/dL and serum urea 16 mg/dL. Amylase, lipase, electrolytes, liver function tests were normal.

Due to continued hematemesis, patient was urgently taken to gastroenterology suit and an upper GI endoscopy was done. It revealed a large tubular section of intestine in the stomach that was nonviable. Evidence of hemorrhage was found in the stomach. The patient was urgently taken to the operating room and a laparotomy was done. At laparotomy, hemorrhagic fluid was seen in the abdomen. Portion of the afferent loop of the gastrojejunostomy was seen invaginated into the immediate distal portion, (Fig1).

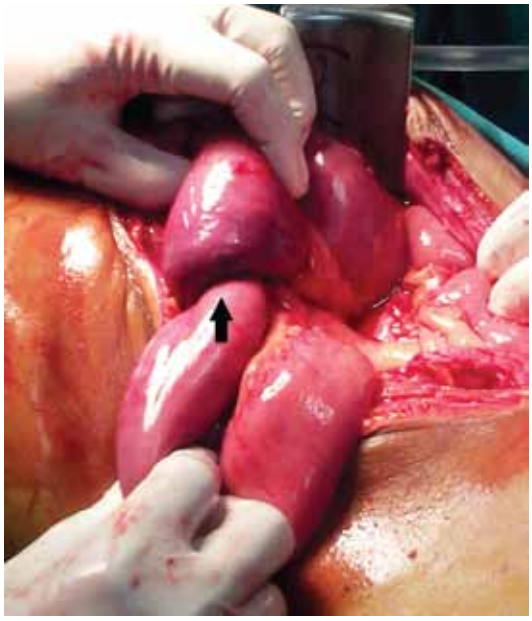

Fig1: Portion of the afferent limb seen invaginated (arrow mark) into the immediate distal portion

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The tip of the intussusceptum was felt in the stomach as a large tubular structure. Due to the size of the intussusceptum, a manual reduction was deemed impossible and the stomach was opened. A 20-25 cm long segment of small bowel was seen in the stomach that was necrosed and hemorrhagic (Fig 2).

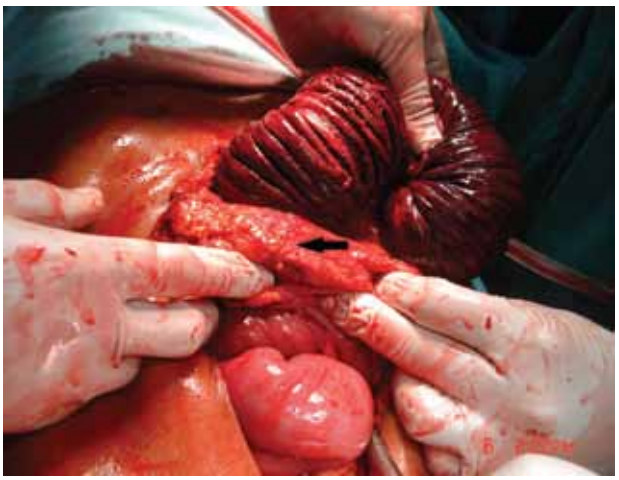

Fig 2: The necrotic intussusceptum seen protruding through the gastrostomy. (arrow mark indicate stomach wall).

It was divided and remaining portion reduced. The edges of the afferent limb was trimmed and a primary anastomosis done. A drain was placed at the anastomosis. Laparotomy wound was closed in layers.

Patient was transferred to the surgical ICU after successful extubation. His post operative recovery was uneventful. The drain was removed on 7th postoperative day.

Discussion

Debenham in 1935 published a report of 35 case of retrograde intussusception following gastrojejunostomy.[1] Although the operation was first one in 1881, this complication was first reported in 1917 by Von Steben in Germany. Later in 1944, McNamara reported a similar case where the retrograde intussusception occurred through a subtotal gastrectomy stoma.[2] Shackman in 1940 described the three types of jejunogastric intussusception which was widely accepted.[3] If both an afferent and an efferent limb were present, type I involved the afferent limb, type II involved the efferent limb and type III involved both limbs. According to Shackman, type III was the most commonly encountered although he also collected reports of both other types. Intussusception after gastrojejunostomy can also present as recurrent abdominal pain and hematemesis. Earlier cases were described by Chamberlin in 1940.[4] Recent reports of recurrent upper gastrointestinal bleeding after gastrojejunostomy in the remote past are also seen.[5]

A search of Pubmed using < (intussusception) and (gastrojejunostomy or gastroenterostomy) > revealed 170 publications. Most of these are of intussusception in the setting of gastric bypass for morbid obesity. There are still reports of intussusception after gastrojejunostomy mostly from developing countries.[6-10] After the popular use of proton pump inhibitors, gastrojejunostomies for strictures may have become less commonly practiced. Among the reports studied, antegrade intussusception was rare. In a report by Singla et al, 71 cases of intussusception after gastric bypass for morbid obesity were studied.[11] 75% of these were retrograde. Our case is interesting in this regard as well because it was antegrade. Particularly, since no certain lead points could be identified. A Pub med search using < Antegrade and intussusception and (gastrojejunostomy or gastroenterostomy)> revealed only one relevant case.

Our patient presented to the hospital three days after the onset of abdominal pain. Debenham and McNamara all stated the importance of early

recognition of this condition as their patients were diagnosed at autopsy. We also state the same and emphasize keeping in mind this condition in any patient with a history of gastrojejunostomy. It is interesting that even in the presence of necrotic bowel in the stomach; our patient did not have a significant WBC elevation or demonstrate frank signs of sepsis. While performing an upper endoscopy is reasonable in most cases of hematemesis, given our patient had a history of gastrojejunostomy and had upper abdominal rigidity, a CT scan could have been the first line investigation. Per operatively, it was a prudent decision to perform a gastrostomy to reduce the intussusceptum as the length could not be appreciated by palpation alone.

This case presents a flashback to a now forgotten surgery. But partial gastrectomy and gastric bypass continue to be frequent procedures. Particularly, with wider adaptation of obesity surgeries, we are more likely to face similar cases. As noted by Singla et al, intussusception may not be as rare as thought after gastric bypass.[11] Our case is a reminder to be vigilant of such occurrence.

References

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