

Retrograde Intussusception In A Post Gastrojejunostomy Patient Following Inguinal Hernioplasty

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I. Introduction

- Intussusception following a Roux-en-Y gastrojejunostomy was first described by Agha in 1986.^[1]
- In adults, intussusceptions account for up to 5% of cases of bowel obstruction, and 90% are secondary to a definable lesion. In children, by contrast, 80–90% are without an identifiable cause.^[2]
- Retrograde intussusception is reported as being very rare with an unknown frequency of occurrence.^[3]
- Intussusception is an underappreciated complication of Roux-en-Y gastrojejunostomy. In one review of 15,553 gastric bypass surgeries at a single institution, 23 patients developed a retrograde intussusception.^[4]

II. Case Report

- A 67 year old man with a past surgical history of Gastrojejunostomy done for acid-peptic disease about 25 years back, presented with a right inguinoscrotal swelling since 3 years.
- Patient was diagnosed of Right Complete Indirect Inguinal Hernia and Right Inguinal Hernioplasty was done under SA.
- Patient developed severe epigastric pain and hematemesis on POD1.

Specific investigation

- An Upper Gastrointestinal Endoscopy was performed.
- It showed a retrograde intussusception was identified with small bowel distal to the gastrojejunostomy intussuscepted into this anastomosis.

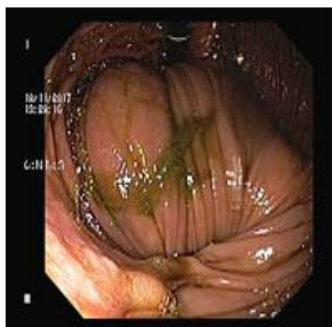


Fig 1



Fig 2



Fig 3

Fig 1-3: Endoscopic images showing the Jejunal loops in the stomach

- Contrast Enhanced CT of the abdomen confirmed the diagnosis.

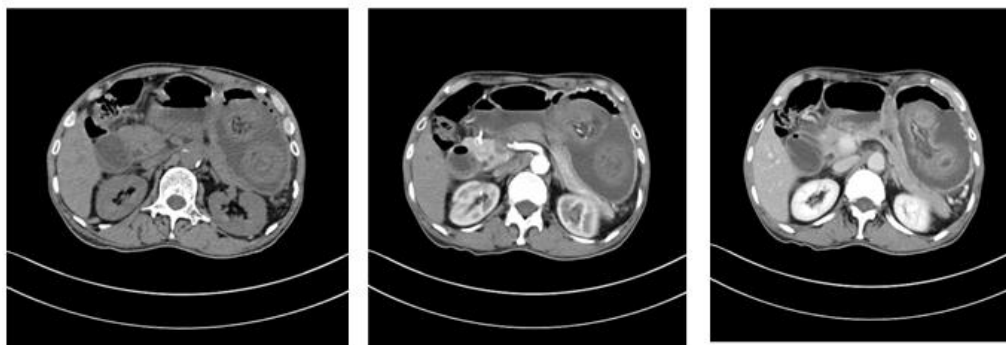


Fig 4: Plain

Fig 5: Arterial Phase

Fig 6: Venous Phase

Fig 4-6: CECT Abdomen showing dilated stomach and duodenum with prolapse of jejunal loops into stomach throughgastrojejunostomy stoma with twisted mesentric pedicle

Treatment

- Patient underwent an emergency laparotomy for the reduction of the intussusception.
- After the intussusception was reduced, the intussusceptum consisted of viable jejunum without the presence of tumor or any other abnormalities.
- Bowel was preserved



Fig 7

Fig 8

Fig 9

Fig 10

Fig 7-10: Intra-operative pictures

- Patient recovered and was discharged on POD10 following the laparotomy.

III. Discussion

- Retrograde intussusception is also called reverse intussusception or antiperistaltic intussusception. Retrograde describes the direction the bowel intussuscepts—from distal to proximal.^[4]
- According to the type of intussuscepted loop, JGI is classified into three types: type I, antegrade or afferent loop intussusception; type II, retrograde or efferent loop intussusception; and type III, combined form.^[5]
- Efferent loop JGI is seen in 80% of the cases as in the present case, while others account for the remaining 20%.^[5]
- The exact mechanism of JGI is still not well understood. Long afferent loop, jejunal spasm with abnormal motility, increased mobility of the efferent loop, and adhesions leading to the intussusception of a more mobile segment into a fixed segment may be the underlying causes.^[6]
- It is also postulated that increased intra-abdominal pressure, a dilated atonic stomach especially after vagotomy, and retrograde peristalsis may be responsible for the development of JGI.^[6]
- It should be kept in mind that a sudden onset of epigastric pain, vomiting and subsequent hematemesis, and a palpable epigastric mass in a patient with a previous gastric surgery can be important diagnostic clues for JGI.^[6]
- The first specic diagnostic study should be an emergent endoscopy which is carried out by endoscopists aware of JGI and its endoscopic picture. Computed tomography allows the differentiation of the distinct stages of the disease. It shows a dilated stomach with intragastric filling by the bowel loops.^[7]
- In spite of the endoscopic and imaging findings, most reported cases of JGI were diagnosed at surgery.^[7]
- Surgical Options include simple reduction or resection with revision of the previously performed anastomosis is the choice which is decided according to the operative findings.^[8]

IV. Conclusion

- Jejunogastric intussusception is a rare life threatening complication of gastric surgery.
- It usually presents with severe epigastric pain, vomiting, and hematemesis.

- A history of gastric surgery can help in making an early diagnosis which calls forth an urgent surgical intervention.
- Apart from Upper Gastrointestinal Endoscopy, CT of the abdomen with contrast is also a reliable method of diagnosis.
- Early surgical intervention is the most important factor for prevention of morbidity and mortality.

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