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# Rare Case of Jejuno-Gastric Intussusception

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**Abstract**

*Retrograde Gastro jejunal intussusception is a rare complication, with an incidence of 0.1 % post op and less than 200 such cases have been reported worldwide.*

*We report a case of 40 year old male patient coming with acute intestinal obstruction with vomiting, hematemesis and epigastric lump. Urgent ultrasound of abdomen and pelvis was suggestive of jejunal intussusception. Contrast enhanced computed tomography of abdomen showed the 'target sign', with jejunal loops in stomach. As details of previous surgery done 15 years back were unavailable, exact cause of gastrojejunal intussusception was unknown till exploration when type 2 Gastro jejunal intussusception was detected. Patient had an uneventful recovery.*

**Key words:** *Retrograde intussusception, Jejunogastric intussusception, Complications of gastric surgery, Gastric intussusception, Strangulation, Rare intussusception*

## CASE DETAILS

A 34 year old male patient was admitted on 5th February 2014 with chief complaints of severe pain in abdomen with recurrent bilious vomiting and 1 episode of hematemesis since one day. Pain was mainly located in the Right upper quadrant of the abdomen and colicky in nature. Patient gave a history of being operated for some Gastric pathology 15 years ago with no other significant history. Patient had been fairly asymptomatic with the exception of once a day vomiting after his breakfast since last 5 months. On examination he was found to have severe tachycardia and raised temperature. He had pallor but no lymphadenopathy. His blood pressure was normal 120/80 mmHg. On abdominal examination, he

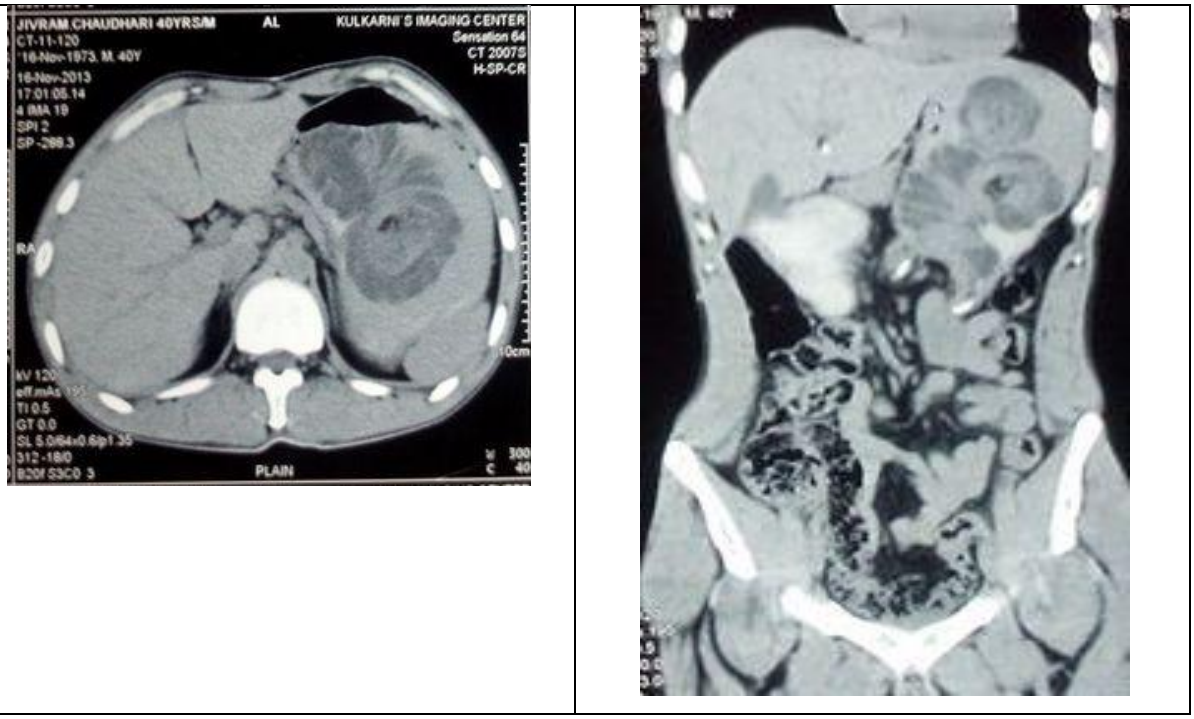
had a vertical scar on mid abdomen with exquisite tenderness in the epigastric, right upper and left upper quadrants. A lump of size 4x 3 cm was palpable on deep palpation. Liver and spleen were not palpable and rectal examination was found to be normal.

On investigating: His x-ray chest was normal and abdominal x-ray showed multiple small bowel air fluid levels. Laboratory investigations showed haemoglobin 8 gms %, white cell count 10,500/cmm. Abdominal Sonology revealed bowel loops with sluggish peristalsis with distended stomach filled with bowel loop with features suggestive of a jejuno gastric intussusception with intestinal obstruction. CT Abdomen showed the "Target sign" with evidence of classic Jejuno gastric intussusceptions.

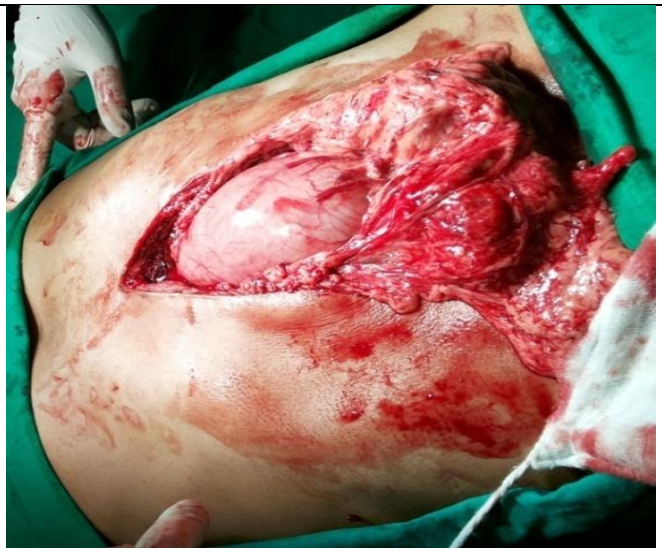
After initial resuscitation patient was posted for surgery. On exploration the Stomach revealed a soft mass within it, after lifting the transverse colon jejuna loops were noted entering the stomach cavity. With gentle traction it was possible to deliver out the intussuscepted jejunal loops (Approximately 25 inches). They were found to be healthy and were covered with warm abdominal pads for 10 mins.

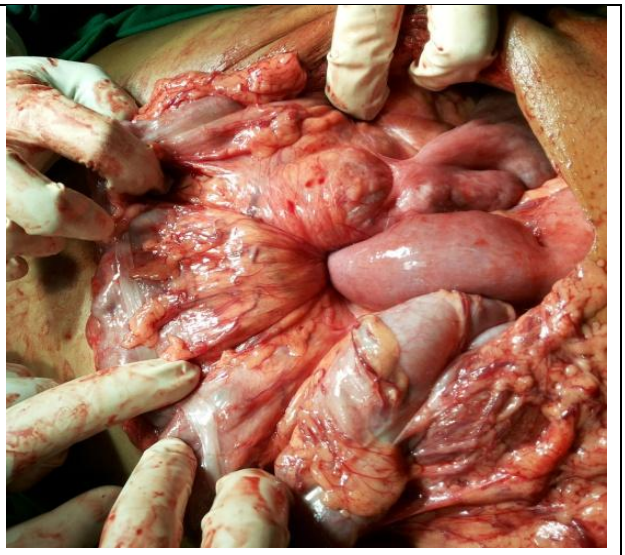
Thorough bowel wash was given and rest of the viscera was found to be normal. Jejunopexy was done by fixing the jejunum to the abdominal wall and similarly Gastropexy was performed. Post operative recovery was normal and uneventful. Patient was discharged on the 7th day post op. Follow up over a period of 8 months revealed no abnormality.

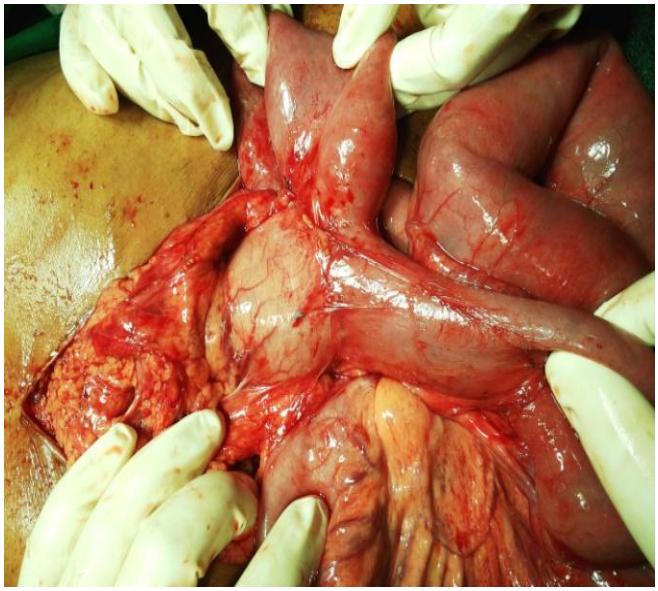
1. Ct scan films showing Jejunogastric intussusception



2. Intra operative pictures







**DISCUSSION**

Jejunogastric intussusception (JGI) was described in 1914 by Bozzi [1] in a patient with gastrojejunostomy. Eight years later this complication was also reported in a patient with Billroth II resection. Subsequently, a large number of isolated cases and small series have been published and the reviews of the literature showed that less than 200 cases have been reported.

Thus, JGI seems to be a rare complication after gastrojejunostomy or Billroth II gastrectomy; it also has been described rarely in association with previously placed gastrostomy tubes [2,3,4].

Two forms of JGI have been clinically recognized: an acute and a chronic form. In the acute form, incarceration and strangulation of the intussuscepted loop generally occur whilst spontaneous reduction is usual in the chronic type. Thus, the acute form is characterized by acute severe colicky

epigastric pain, vomiting and, subsequently, hematemesis. Epigastric tenderness and a palpable abdominal mass can be observed in about 50% and signs of high intestinal obstruction can also be found. It should be pointed out that a sudden onset of epigastric pain, vomiting and subsequent hematemesis, and a palpable epigastric mass in a patient with a previous gastric surgery are thought as the classic triad of JGI. The picture was absolutely typical in the case described here. In the chronic form, the symptoms may be roughly

similar to the acute form but milder, transient and subside spontaneously.[5,6]

According to Shackman Jejunogastric intussusception can be classified as [7,8] :

Type 1 – Ascending (involves Afferent loop)

Type 2 – Descending (involves Efferent loop)

Type 3 – Both

The exact etiology [9, 10] for the intussusception is still unknown. Unlike other types of intussusception elsewhere in the abdomen where a tumor or polyp or lymphnode patches are generally incriminated no such anatomico-pathological change could account for the genesis of this type. There have been a few theories.

According to Aleman's assumption : the hydrochloric acid irritation of the anastomosed jejuna loop, producing spasm and violent peristalsis is a definite etiological factor, in which the anti peristaltic activity of the jejunum is secondary to presence of acid from the gastric contents.

Mechanical causes like : Shortening of the mesentery of jejuna loop, pressure from short mesocolon, adhesions to the mesocolon, a sucking action of the stomach where stoma is narrow, too large a stoma, jejuna stenosis with obstruction facilitating anti peristalsis have been incriminated.

Early diagnosis of the acute form is of paramount importance.

The clinical picture is almost diagnostic to the alert, sensitized physician. X-ray [11]can be occasionally diagnostic. Endoscopy [12,13] performed by someone familiar with this rare entity, is certainly diagnostic. In the chronic form, the diagnosis is difficult. In many of such patients, the correct diagnosis, has never been established. The main reason for this is that upper GI endoscopy must be performed during the symptomatic period for the diagnosis to be confirmed. However, it has been suggested that in the asymptomatic period, the provocation of intussusception during endoscopy by the use of a jet of water directed towards the anastomotic stoma may be diagnostic of the chronic form. CT scan is highly sensitive and can be utilized in a stable patient [11].

There is no medical cure and surgery is the only solution. Surgical options include reduction, resection, revision of the anastomosis and the take-down of the anastomosis, depending on the conditions found during the operation. Most authors advocate a revision gastroenterostomy with Bilroth Type 1 reconstruction as an ideal solution, however case studies done all over the world prove that lesser radical approaches meticulously performed have equally strong benefit.[2,7,14]

## CONCLUSION

Jejuno Gastric intussusception is a rare complication with less than 200 cases identified so far and the clinical trial of pain, vomiting and palpable lump is almost pathognomic of the condition. USG and Diagnostic endoscopy offer the maximal benefit in diagnosis, CT scan can be used as an adjunct in hemodynamically stable patients. Surgery is the only cure and the options for reconstruction depend on the intra abdominal findings. In the end it's safe to conclude that the abdomen is a magic box filled with surprises.

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