

Jejunojejunal Intussusception Induced by Lipomatous Polyp of Jejunum

JAYANT KUMAR BISWAL, JINO SEBASTIAN, TANMAYA MAHAPATRA, JITENDRA KUMAR SOREN

ABSTRACT

Adult intussusception is rare unlike childhood variety where it is the leading cause of intestinal obstruction. Preoperative diagnosis is often difficult as the symptoms are nonspecific and so high index of suspicion is needed for early diagnosis by appropriate investigations. This is a case of 65-year-old man presented with acute intestinal obstruction whose

laparotomy revealed a jejunojejunal intussusception secondary to a lipomatous lesion which was successfully treated with resection and primary anastomosis. When dealing with a case of chronic intermittent intestinal obstruction, intussusception must be kept in mind as one of the differential diagnosis.

Keywords: Intestinal obstruction, Neoplasm, Small intestine

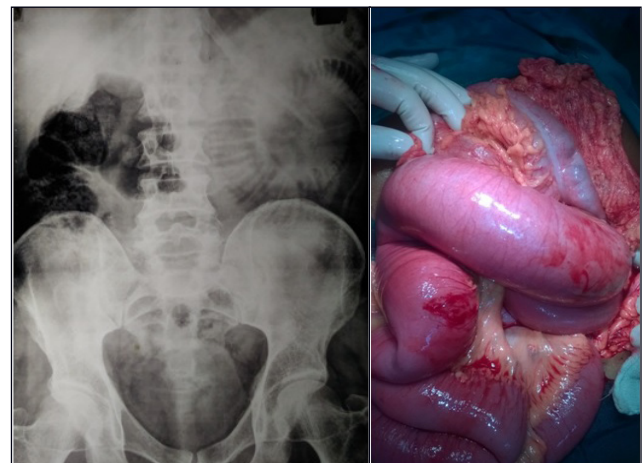
CASE REPORT

A 65-year old man presented to our Emergency Department with complaints of acute onset of severe abdominal pain, abdominal distension and four episodes of vomiting started one day back. It was also associated with non passage of stool and flatus. There was no history of fever or trauma. He said that he used to experience mild intermittent abdominal pain, distension and nausea after food intake which was relieved by intake of water, for the last eight months for which he sought medical advice several times but was diagnosed with gastritis and got treated accordingly. There was no history of melena, bleeding PR, weight loss, peptic ulcer disease or previous abdominal surgeries. Abdominal examination revealed presence of abdominal distension with diffuse tenderness and a firm mobile, 10x10 cm lump in left paraumbilical region. On auscultation exaggerated bowel sounds was present.

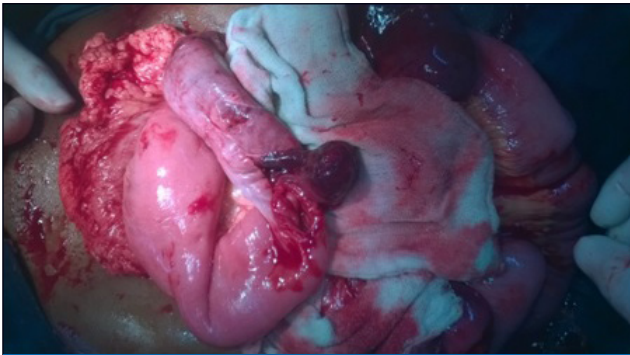
Erect X-ray of abdomen showed distended jejunal loops with coiling and valvulae conniventes in left upper quadrant of abdomen [Table/Fig-1]. Ultrasonography showed hypoechoic mass with matted small bowel loops of size 138 x 117 mm seen in left flank, possibility of intussusception was considered.

Patient was taken for surgery with informed and written consent. On laparotomy a jejunojejunal intussusception at around 30 cm distal to duodeno-jejunal junction was found. Proximal to it, bowel was distended and oedematous with both intussusceptum [Table/Fig-2] and intussusciptiens in a pregangrenous stage.

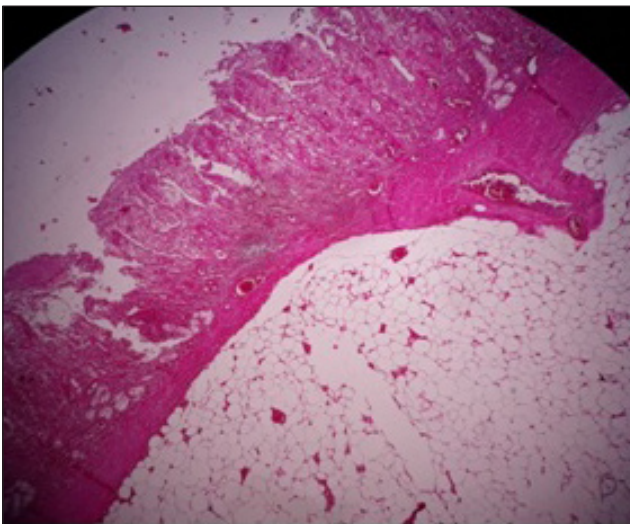
A segment of 80 cm of jejunum was involved which was pregangrenous and was resected. The leading point had an intraluminal polypoidal mass of 2 cm size [Table/Fig-3]. We ruled out presence of any other mass lesions or polyps by palpating rest of bowel. An end to end anastomosis was done. Polypoidal mass was soft in consistency with reddish brown overlying mucosa. No Infiltration to adjacent structures or any enlarged mesenteric lymphnodes were present. Structures gross appearance of cut section showed homogenous greyish yellow colour. Histopathologic examination of the specimen showed polypoid projection with ulceration of the surface lining, band of inflammatory haemorrhagic material in



[Table/Fig-1]: The image showing plain X-ray of abdomen showing dilated jejunal loops. **[Table/Fig-2]:** The dilated Intussusceptum.



[Table/Fig-3]: The image showing leading point of intussusception (a peduculated submucous lipoma).



[Table/Fig-4]: Microscopy of the lipomatous polyp showing adipocytes.

the surface with destruction of mucosal glands, large lobules of fat cells in the submucosa, with no cellular atypia. Features are those of lipomatous polyp of jejunum [Table/Fig-4]. Patient was started orally on post-op day 5, and was discharged on post-op day 10 without any complications. Patient was symptom free on follow-up.

DISCUSSION

Adult intussusception is a rare disease. It is difficult to diagnose intussusception in adults [1]. Incidence of adult intussusception is 2-3 cases per population of 1000000 per year. In adults in 90% of cases a demonstrable cause can be identified unlike childhood intussusception where 90% cases are idiopathic [2]. Neoplasms are the most frequent cause of adult intussusception. In infants usually it is idiopathic but after five years of life causes like Henoch-Schonlein purpura, polyps, lymphoma, meckels diverticulum are common. Causes of intussusception in colon and small bowel are different. In colon 69% cases are due to neoplasia in which 70 % are malignant. In the small bowel also, neoplasia is the leading

causative lesion (57%) but malignancy is less frequent (30%). Metastatic tumours are most common malignant cause of small bowel intussusception and adenocarcinoma is the most common malignant lesion in the colon.

Frequency of benign small bowel tumours increases from duodenum to ileum. Leiomyomas are the most common small bowel tumour (25-50%), other common causes are adenomas (11-35%), and lipomas (15-25%). Lipomas are more common in females and usual age at presentation is 6th-7th decade. In 90% of cases lipoma originates in submucosa, and forms a soft mass which protrude into lumen covered with intact mucosa.

As the adult type intussusception presents with non specific clinical features and chronic history with fewer than 20% of cases having acute onset of symptoms with features of complete bowel obstruction, a high index of suspicion is required for clinical diagnosis of this condition

Imaging: According to the literature, even though imaging studies are too much evolved only 32% to 50% of cases are diagnosed preoperatively [2-4].

X-ray: Can show multiple air fluid levels if a mechanical obstruction is present and rarely air crescent sign (air trapped between walls of intussusceptum and intussusciptens) is seen, but both are nonspecific .

Barium: Barium meal or enema which are contraindicated due to the risk of bowel perforation and barium induced peritonitis, may demonstrate the intussusception with the characteristic finding of coiled spring appearance (in barium meal) and cup shaped defect in barium enema.

Ultrasound: It is operator dependent and the presence of distended bowel decreases the ability to demonstrate the site of the obstruction. But it can sometimes show "target-like" sign, "Doughnut"-sign, "Trident"-sign, and the "Pseudo kidney"-sign when the transducer is oriented in different directions in experienced hands [5].

Computed Tomography (CT): The most accurate diagnostic tool for diagnosing intussusception is CT-scan with oral/ intravenous contrast and is the imaging method of choice [6]. Features like entering wall, mesenteric fat and vessels, returning wall, and intraluminal space, can be clearly seen at CT. The presence of a bowel-within bowel configuration with or without mesenteric fat and mesenteric vessels is pathognomonic for intussusception. An abnormal target like lesion with cross sectional diameter more than normal bowel is the appearance of one with a lead point.

Capsule Endoscopy: This new modality is very helpful in cases with long standing abdominal pain and negative radiologic examination, either CT or barium studies, to exclude the possibility of malignancy. Presence of obstructive

symptoms is a contraindication to capsule endoscopy. If an intussusception is incidentally discovered during investigation for other diseases, this modality can be used to see whether a leading point is present or not [7].

Enteroscopy: This technique is more advantageous than capsule endoscopy that a biopsy specimen can be acquired from any lesion discovered and even endoscopic polypectomy can be done [8]. Reduction of the intussusception should not be attempted if there are signs of inflammation or ischemia as there exist a risk of transperitoneal, vascular and intraluminal seeding, if a malignant lesion is the leading point. So resection of the affected segment and primary anastomosis is surgery of choice as incidence of a structural cause is high.

CONCLUSION

Submucous lipoma in jejunum is a rare entity and may cause intermittent intestinal obstruction due to formation of intussusception, resulting in intermittent episodes of pain in upper abdomen. It may also present as a case of acute intestinal obstruction, resulting in emergency surgery. While investigating a case of intermittent episodes of upper abdominal pain, presence of a submucous lipoma causing chronic intussusception should be kept in mind to avoid an emergency situation, as in our case which may cost even the life of the patient.

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