

Case Report

Chronic Idiopathic Intussusception: An Unusual Cause of Intestinal Obstruction in Adults

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Abstract

Intussusception, though common in children, occurs in adults as well, though infrequently. It constitutes only 1% of all cases of intestinal obstruction. The patients present with non-specific abdominal pain of long duration. This makes a clinical suspicion tricky and diagnosis challenging. Unless, a mass is palpable in the abdomen or the intussusception reveals itself on rectal examination, there may be little more to go on other than vague abdominal pain and nonspecific signs. Adult intussusception is associated with an underlying pathology in over 90% cases, as compared to intussusception in children, where over 90% are idiopathic. But 10% of adult cases may present with no demonstrable cause of intussusception, and are considered to have idiopathic intussusception. Preoperative diagnosis is difficult, and may be clinched by a CT scan. Therefore, a high index of suspicion is required for diagnosis of intussusception in adults. Treatment in adults differs from children and consists of resection and anastomosis with no prior attempt at reduction. We here present a case of intestinal obstruction due to chronic idiopathic intussusceptions in a 27-year-old male patient.

Keywords: Chronic intussusception, idiopathic intussusception, intestinal obstruction, adults

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Introduction

Intussusception is defined as a condition where a proximal segment of bowel (intussusceptum) telescopes into an adjacent distal segment (intussusciens). Intussusception in adults is rare, accounting to about 1% of patients with intestinal obstruction. Unlike intussusception in children, where acute abdomen is the common presenting symptom, adults usually present with vague, nonspecific, intermittent abdominal symptoms. Usually, an underlying pathological lead point is demonstrated. Only a small group of adult intussusception patients have no demonstrable pathological lead point and are therefore considered to have idiopathic intussusception.

Case Report

A 27-year-old male patient presented with complaints of intermittent, colicky lower abdominal pain usually 1-2 hours after taking food. Pain was associated with appearance of a lump in the lower abdomen, which disappeared with subsidence of pain. He also gave history of intermittent, non-bilious, watery, non-projectile vomiting for 2 months with anorexia, weakness and weight loss.

Abdominal examination revealed a 5 x 5 cm firm swelling over right iliac fossa. It was non-tender and resonant on percussion. The swelling moved to the left iliac fossa on subsequent examinations. Peristaltic sounds were present. Per rectal examination revealed absence of any faecal matter.

Abdominal X-ray revealed few air-fluid levels. Ultrasonography demonstrated minimal ascites. Barium study demonstrated dilated distal ileum. CT scan demonstrated dilated fluid filled gut loops in lower abdomen, suspected to be due to obstruction due to band adhesions (Fig. 1).

The patient underwent exploratory laparotomy for recurrent subacute intestinal obstruction. On exploration, a segment of thick walled, dilated terminal ileum, 2 cm proximal to ileo-caecal junction was seen (Fig. 2a). Proximal 7-8 cm of ileum was found to telescope into the distal segment. Serosal fibrosis was present over the dilated segment. Resection of distal ileum, caecum and proximal ascending colon, with ileo-ascending end to end anastomosis was done. On opening the specimen, proximal segment was seen telescoping into the distal segment. Ileal mucosa appeared normal (Fig. 2b). The post-operative recovery was uneventful. On follow-up, the patient has been free from any further abdominal problems.

Histopathological examination revealed marked vascular congestion in submucosa and serosa with non-specific inflammation. No neoplastic or granulomatous pathology was seen.

Discussion

Intussusception in adults accounts for 0.005% of all adult hospital admissions (1) and around 5% of all intussusceptions (2). Ninety percent cases of intussusception in children, is idiopathic. But in adult intussusception, a demonstrable cause is found in 90% cases. Approximately 65% are due to a neoplasm. Of these, the lead point in 30% of small bowel intussusception is due to malignant neoplasm, while the incidence jumps to 60% in colonic intussusception (3). 15% -25% cases have non neoplastic causes of intussusception, the commonest being Meckel's diverticulum. Other non neoplastic causes include adhesions, trauma, lymphoid hyperplasia, adenitis, celiac disease etc.

The remaining 10% are idiopathic, and constitute a group of intussusception patients, in whom no demonstrable cause is found. These are the ones most difficult to diagnose and a very high index of suspicion is required to identify them.

Chronic intussusception is defined as intussusception lasting for 14 days or more. The patients usually suffer from colicky abdominal pain 1-2 hours after food (4). The food in the stomach leads to increase in peristalsis, which pushes the lead point along the

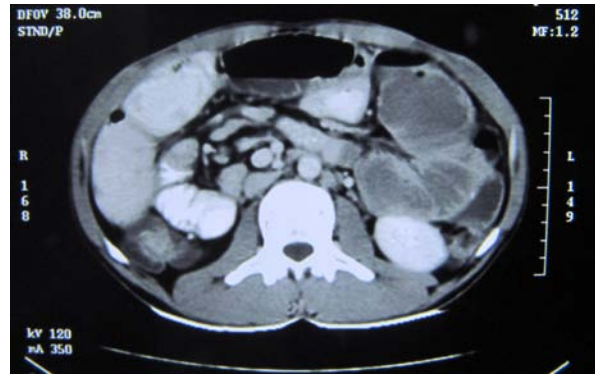


Figure 1: CT scan showing dilated fluid filled gut loops in lower abdomen.

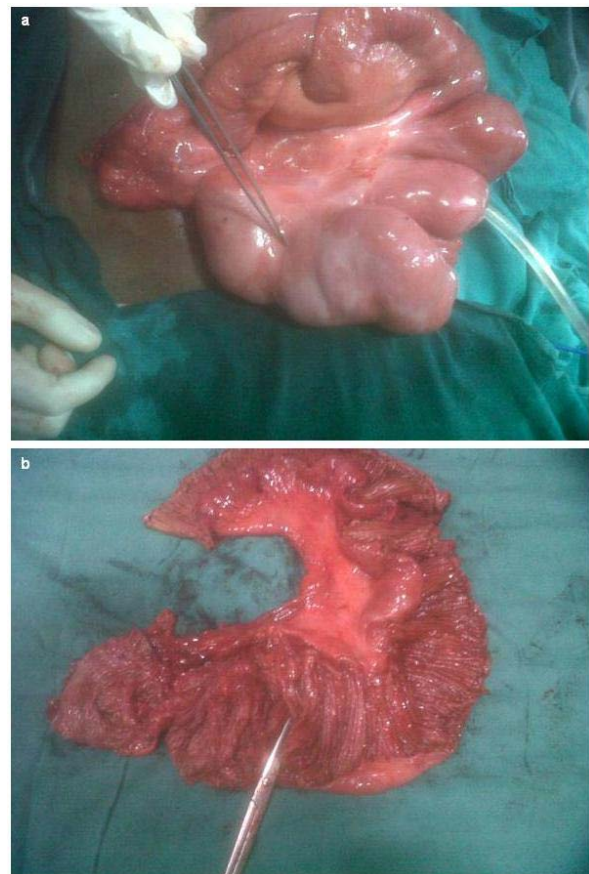


Figure 2: (a) Segment of thick walled, dilated terminal ileum, 2 cm proximal to ileo-caecal junction. (b) Cut open specimen showing pointer at point of intussusception and normal ileal mucosa.

bowel, leading to an intussusception and intestinal obstruction. Spontaneous reduction occurs once the reflex has ceased. Thus, history of repeated attacks of colicky abdominal pain (and sometimes associated vomiting) with a constant time relationship to food, associated with mild bowel changes may be a valuable early symptom of intussusception, and should be

investigated judiciously. Nonspecific clinical symptoms and low index of suspicion often leads to delay in diagnosis in chronic intussusception (5).

The role of plain radiographs in diagnosing intussusception is not too prominent. Radiographic diagnosis is made in only 29% cases (6). A left lateral decubitus view helps to increase the percentage of positive findings (7).

Barium enema has been considered to be gold standard for diagnosis of intussusception for many years. It is also useful in reducing an intussusception in children. It produces the classical meniscus sign and the coiled spring sign. However, occasionally even barium enema may misinterpret an intussusception. In this patient, distal ileum was dilated but barium enema was otherwise normal. Abdominal ultrasonography classically shows a 'target' lesion of two rings of low echogenicity separated by a hyperechoic ring when seen on transverse section or a 'pseudo kidney' sign of superimposed kidney shaped hypoechoic and hyperechoic layers, which represent the oedematous walls of the intussusceptions when seen on longitudinal section. CT scan also shows a typical 'target sign'. In spite of all available modalities of investigation, preoperative diagnosis of adult chronic intussusception is often elusive. Our patient did not reveal any of the typical signs expected in either ultrasonography or CT scan.

The standard treatment in adult intussusception is surgical (8). There is minimal role of non surgical reduction. Because of the high incidence of a malignant lead point, especially in the colon, a segmental resection without any attempt at reduction (to prevent perforation and / or tumour seedling) is generally advocated (9,10).

In the few percentage of patients suffering from idiopathic intussusception, the treatment is controversial. Here, a diagnostic laparoscopy may be attempted. In the absence of ischemia or inflammation, a surgical reduction may be attempted (9,10). This fact is debatable, as it is seldom known preoperatively whether a pathological lead point is present or not.

Conclusion

Chronic idiopathic adult intussusception is a rare cause of intestinal obstruction. Diagnosis of this pathology

can be challenging because of its intermittent & non-specific symptoms. Though resection and anastomosis with no prior reduction remains the treatment of choice, treatment of these patients remain controversial.

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