

Chronic intussuception due to ileocaecal tuberculosis in a young adult with severe anemia: Case report with literature review

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Abstract

Context: Intestinal intussuception in an adult is a rare entity that differs in etiology from its pediatric counterpart owing to underlying pathologic lead points in adults, mostly neoplasms. The main clinical presentation in chronic intussuception in adults remains dull abdominal pain, and acute intussuception is uncommon. Computed tomography (CT) remains the diagnostic modality of choice and surgical resection is the optimal treatment. **Case Report:** We report a case of chronic intussuception in a young adult presenting with severe anemia and chronic abdominal pain in right hypochondrium and lumbar region. Pre operative diagnosis of chronic ileocolocolic intussuception was made on the basis of ultrasound, barium and CT scan findings. Exploratory laparotomy was done and right hemicolectomy with end to end anastomosis was performed. Histopathological examination of resected specimen revealed presence of tuberculosis in the mass along with mesenteric lymph nodes involvement. Postoperative recovery was uneventful and he was put on antitubercular drugs. In follow-up the patient is asymptomatic. **Conclusion:** Chronic ileocolocolic intussuception due to tuberculosis should be considered as a possible cause of intestinal obstruction in young patients presenting with vague abdominal pain and severe anemia even in the absence of any specific medical history.

Keywords: Chronic Intussuception, adult, tuberculosis, anemia.

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Introduction

Adult intussuception is rare and accounts for 1 in 100 of all cases operated for intestinal obstruction and one case of adult intussuception in comparison to every 20 patients in pediatric age group [1]. 90% cases in children are idiopathic whereas adults have a demonstrable cause in 70%-90% of cases [2]. The presentation of pediatric intussuception often is acute with sudden onset of intermittent colicky pain, vomiting, and blood stained cherry, mucoid stools, with a palpable abdominal mass. Whereas adults may present with acute, subacute, or chronic non-specific symptoms. Computed Tomography (CT) is the investigation of choice in such patients. Surgical management is the rule and resection without reduction is the preferred modality in colonic

intussuceptions [3].

Gastrointestinal tumors (GIT) mostly benign are the etiological lead points but tuberculosis of intestine and mesenteric lymph nodes, a very rare cause of intussuception as in our case incites us to report this case.

Case Report

25 years male presented to the hospital with chief complaints of pain in the right hypochondrium for 8-9 months without history of vomiting and constipation. He was non-diabetic, non-smoker without any history of tuberculosis.

On examination, there was severe anemia and vague abdominal mass in right hypochondrium extending to the right lumbar region with increased bowel sounds.

Abdominal ultrasound (USG) revealed thickened matted bowel loops forming phlegm on in right lumbar region suggestive of inflammatory etiology. CT abdomen and barium meal follow through (BMFT) revealed empty right iliac fossa and pulled up caecum with ascending colon with gross thickening of their walls leading to a large lump in right lumbar area. A few loops of small gut and fat containing mesentery were also seen with this lump. On the basis of clinical examination and diagnostic armentarian preoperatively diagnosis of chronic ileocolocolic intussusception with severe inflammatory changes was made (Fig. 1). This was confirmed on exploration and right hemicolectomy with end-to-end anastomosis was done (Figs. 2, 3). Postoperatively, patient recovered very well.



Fig. 1 CT scan showing empty right iliac fossa with gross thickening of wall of caecum and ascending colon forming a lump in right lumbar area.

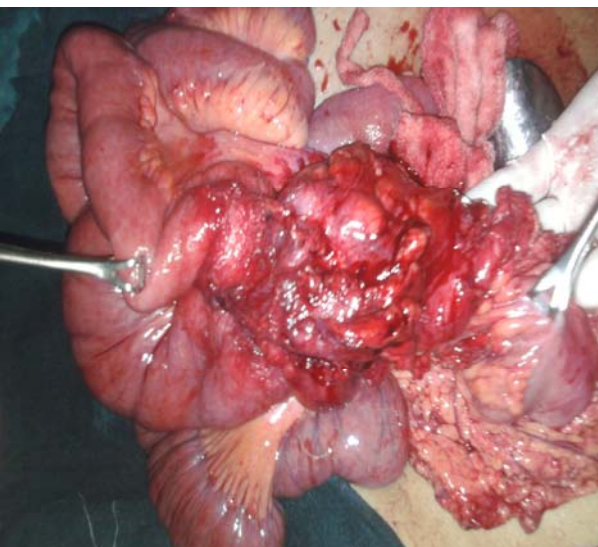


Fig. 2 Intraoperative picture showing part of ileum entering inside caecum and ascending colon forming an ileocolocolic mass after mobilisation of right sided colon.

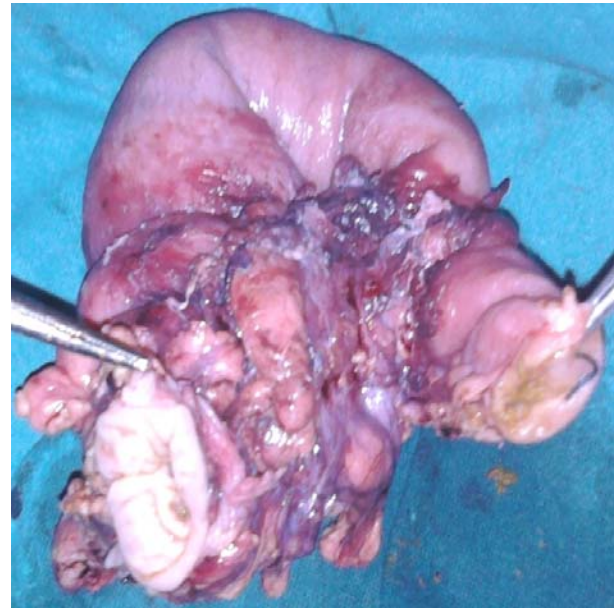


Fig. 3 Gross specimen showing resected ileocolocolic mass with demonstration of ileal and colonic ends.

Histopathological examination of the resected specimen showed presence of granulomas consisting of caseation necrosis, Langerhans's giant cells, epitheloid cells and lymphocytes and with these characteristics, a diagnosis of tuberculosis was made to be the cause of this intussusception. The patient was put on antitubercular drugs and in the follow up, patient is asymptomatic.

Discussion

Intussusception is a common cause of intestinal obstruction in pediatric surgical practice, where it is the predominant cause of intestinal obstruction in children aged 3 months to 6 years. They develop iliocolic intussusception, probably from hyperplasia of Peyer's patches secondary to a viral infection. In contrast, adult intussusception is unusual and remains a challenge to the treating surgeon. It can lead to both small and large bowel obstructions [3].

Intussusception in adults accounts for 0.1% of all adult hospital admissions and 5%-16% of all intussusceptions. In contrast to intussusception in childhood, which is idiopathic in 90% of cases, adult intussusception have a demonstrable cause in 90% of the cases [4]. The incidence of adult intussusception is equivocal in both genders in contrast to pediatric age group where males have predilection to females, ratio being 3: 1 [1].

In majority of cases, the cause of intussusception in the small intestine consist of benign lesions, such as benign neoplasms, inflammatory lesions, Meckel's diverticuli, appendix, adhesions etc. Malignant lesions (either primary or metastatic) account for up to 30% of cases of intussusception in the small intestine. On the other hand, intussusception occurring in the large bowel should be considered as having malignant etiology as it represents up to 66% of the cases [2]. However, tuberculosis of intestine as a causative factor hardly finds a mention in the world

literature which was the lead point in our case [5].

Intussusception can present with acute, intermittent, and chronic symptoms. However, abdominal pain and mass remains the striking feature in 90% and 24 - 42% respectively as reported in different series [2]. Chronic refractory anemia is not a common manifestation of intussusception in adults but was predominant to the extent requiring multiple blood transfusions in our patient [6]. Although investigations were done preoperatively to find the cause of anemia but it could not be detected. However after the surgical treatment patient had an excellent improvement in anemia during the follow up period of three months.

The preoperative diagnosis of chronic intussusception is infrequent, however, with the advent of USG and CT diagnostic ability has improved tremendously [7-10]. Laparotomy is mandatory, based upon the likelihood of identifying a pathological lesion [11]. Colonic intussusception should be resected en bloc, without any attempt of reduction due to its chronicity and high likelihood of malignancy (58%) [12]. One stage procedure of right hemicolectomy and end-to-end anastomosis without attempt of reduction was done in this patient as well.

Conclusion

Intussusception due to tuberculosis though extremely rare should be kept on back of mind as a possible cause. Surgical resection without attempt of reduction remains the rule of thumb while dealing with chronic intussusception of colonic origin.

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