

Chronic Idiopathic Ileo-Ileal Intussusception in an Adult: A Case Report and Literature Review

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Abstract: Intussusception is by far the disease of childhood and it is usually a primary pathology (unknown cause) in the children. Adulthood intussusception is rare and usually secondary to an intraluminal mass (tumour, lymph nodes. Because of its rarity in the adults Intussusception presents a diagnostic dilemma in the clinical practice and can be missed easily. Being a diagnostic dilemma n adult patients, this paper presents an uncommon case of an adult ileo-ileal chronic intussusception.

1. Introduction

Intussusception is common among the children affecting 95% (1) of the cases. However, its occurrence is rare in the adults accounting only for 0.5 % of hospital admissions and 5 % - 16 % of all the intussusception (3). In children, intussusception is usually idiopathic and involves enterocolic segment of bowel in 90 % of cases (3, 10). On the other hand, in the adults, it is usually secondary to a bowel pathology involving small bowel in approximately 80% of the cases and large bowel in 30 % of cases. A rare case of ileo-ileal intussusception causing chronic abdominal pain in an adult is reported in this article with a review of literature

2. Case Report

A 57 year-old female was admitted to the acute surgical ward with worsening of her lower abdominal pain. She had background history of diverticular disease and a single episode of rectal prolapse 3 years ago. Her current symptoms dated back to 2 years ago when she developed cramps like mild, intermittent, generalized abdominal pain. However a worsening lower abdominal pain over the past 3 weeks resulted in acute admission. The pain was moderate in severity and radiating to the left iliac fossa. She did not describe symptoms of nausea, vomiting or abdominal distension. An alternating diarrhea and constipation was a prominent feature associated with the pain. Other constitutional

symptoms included loss of appetite and approximately six kilogram loss of weight within the past three weeks. She had a history of diverticular disease and rectal prolapse which settled with conservative management 3 years prior to her admission. Her operative history included an open right inguinal and a para-umbilical hernia repair in the past. Apart from the analgesics (as required), patient was not taking any regular medications.

On admission, the patient was afebrile and hemodynamically stable with a BMI of 25. The examination revealed mild tenderness in the left iliac fossa without clinical features of the peritonitis. Bowel sounds were of normal features. The pathological investigations were within normal limits (Hb=18.9, WBC=6.9) with the exception of raised CRP=60. The renal functions and liver functions tests were within normal limits. The x-rays of the abdomen and chest did not show features of intestinal obstruction or bowel perforation

Keeping in mind a short duration of anorexia and weight loss, a provisional diagnosis of diverticulitis was made which was managed conservatively with antibiotics (Intravenous cefuroxime 750 mg and metronidazole 500 mg three times a day). As she never had any acute symptoms of the intestinal obstruction, she was allowed oral intake. Antibiotic therapy was continued for nine days which did not result in the improvement of symptoms. The WBC count and CRP continued to rise despite antibiotic therapy [Fig 1&2].

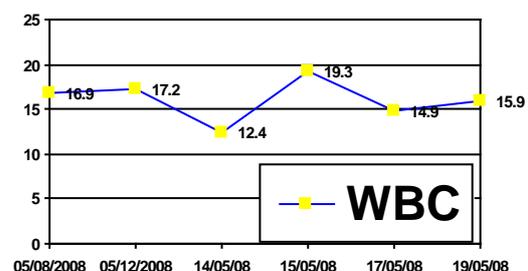


Fig 1 (WBC/l)

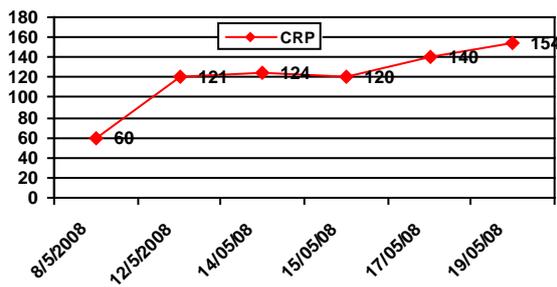


Fig 2 (CRP mg/l)

A CT of abdomen and pelvis was organized to exclude diverticular abscess or perforation. Interestingly, the CT scan did not show any features of complicated diverticular disease. On the contrary, a mildly dilated proximal small bowel loops with "Target Lesion" in small bowel on right side of her abdomen and radiological diagnosis of intussusception was suspected (Fig 3).

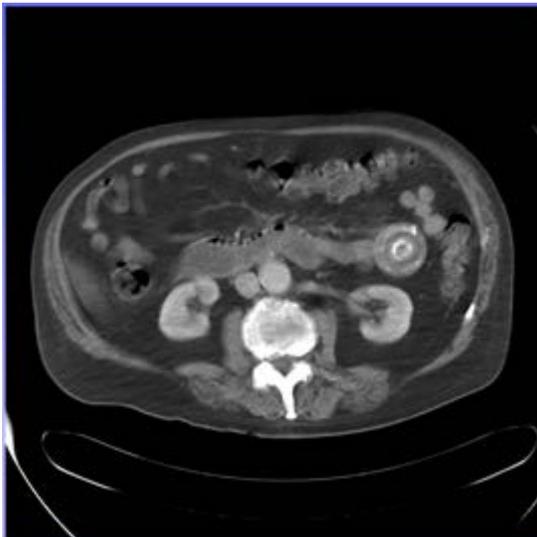


Fig 3 (CT Scan abdomen)

Subsequently, she underwent a laparotomy and she was found to have an ileo-ileal intussusception about 60 cm proximal to ileo-caecal junction (Figure 3). The small bowel segment proximal to intussusception was mildly dilated and the distal bowel segment was not typically collapsed. It was also noted to have some specific features such as thickened bowel wall, adhesions in telescoped bowel walls, suggesting a long standing pathology. No adhesion or band was seen at laparotomy. The intussusception was difficult to reduce due to its chronicity. The intussusception segment was therefore resected and a primary anastomosis was performed. There was no growth or neoplasm was found as a leading point on naked eye examination per-operatively. Patient made an uncomplicated recovery and was discharged on day 7 after surgery. Histology report showed chronic inflammatory

changes in bowel wall without any finding of tumor as a trigger factor. She was symptom free at the three (3) months follow up and she was then discharged to primary care.

1. Discussions

Intussusception is defined as telescoping of a segment of gastrointestinal tract into the adjacent segment. It is a leading cause (over 95%) of the intestinal obstruction in children¹ compared to the adults (5%). In adults, the peak incidence occurs in 4th and 5th decades of the life with male to female ratio of 2-3:1². Intussusception is classified as primary (idiopathic) and secondary. The lesions within bowel wall such benign or malignant tumor, inflammatory bowel disease, coeliac disease or localized thickening has been reported as the causes for secondary intussusception. Adult idiopathic intussusception is more common in the small bowel than colonic idiopathic intussusception^{3,4}. Small bowel intussusception is commonly located in proximal small bowel due to increased peristaltic activity⁶. However, our patient had an uncommon ileo-ileal intussusception in the distal small bowel. In contrast to the 90% of the intussusception in the children which is idiopathic, adults have only 10 % idiopathic intussusception^{5,6}. Exact mechanism of the intussusception is unknown. It has been postulated that any leading point such as growth in bowel wall could cause a secondary intussusception. Surprisingly, this patient had no histological features of any pathology which could have triggered the intussusception. In those patients where no cause has been found, dysrhythmic peristalsis, fibrous adhesions or sub-mucosal edema has been considered as key factors leading to the intussusception.

Incidence of the intussusception in adults is reported as 2-3 per 1000000 in the developed countries⁷. Chronic intussusception is defined as presenting with the symptoms of more than 14 days duration⁸. Although most of the patients present with the acute symptoms, the duration of symptoms could range from over two weeks to many years similar to the symptoms duration of over two (2 years) in our patient. One case study reported symptoms up to five (5) years prior to diagnosis⁹.

The diagnosis of the intussusception presents a surgical dilemma in the adult patients as the symptoms tend to be vague. The most common symptom in the chronic intussusception is the persistent abdominal pain or cramp (90% of cases) consistent with this case report¹⁰. Other symptoms include constipation, diarrhoea, weight loss and melena. Palpable abdominal mass has been seen in 40-50% of cases.

Diagnostic tool for the intussusception is CT - scan with sensitivity ranging 71.4% - 87.5%¹¹. The

intussusception on the CT scan may appear as a thickened segment of the bowel like a sausage or target sign¹² which is believed to represent the early intussusception which was contrary to our case where target sign was observed in the chronic intussusception. However, it is likely that the CT appearances are dependent upon the location, secondary pathology and the axial plane of the CT.

Although some authors reported successful hydrostatic reduction⁹ of the intussusception, the standard treatment for the adult intussusception consists of surgical resection^{7,13} of the affected bowel segment and restoration of continuity of the gastrointestinal tract.

2. Conclusion

This was an interesting case of idiopathic intussusception with chronic non-obstructive gastrointestinal symptoms and involving the distal small bowel segments. Most of the case reports have shown chronic GI symptoms with either acute presentation or chronic presentation with involvement of large bowel. This case report stresses rare presentations of small bowel intussusception and need for early referral of middle aged patient with persistent abdominal symptoms.

3. References

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