

REVIEW ARTICLE

DISSEMINATED TUBERCULOSIS PRESENTING AS ILEO-COLIC INTUSSUSCEPTION: CASE REPORT AND REVIEW OF LITERATURE

Jomine Jose¹, Vergis Paul², Anup Paul Varkey³, Danny Joy⁴

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ABSTRACT: Adult Intussusception is a very rare disease. Patient may present as a case of acute or chronic intestinal obstruction. We are presenting a case that was caused by disseminated tuberculosis. **CONCLUSION:** Intussusception should be kept in mind in a tuberculosis patient presenting with intestinal obstruction.

KEYWORDS: Disseminated Tuberculosis, Intussusception.

INTRODUCTION: Abdomen is the most common site of extra pulmonary tuberculosis involvement.⁽¹⁾ Ileocecal area is the most commonly involved site due to the abundance of lymphoid tissue (Peyer's patches) followed by the colon and jejunum.⁽¹⁾ Tuberculosis can involve any part of the gastrointestinal tract and is the sixth most frequent site of extrapulmonary involvement.⁽²⁾

Intussusception of the bowel is defined as the telescoping of a proximal segment of the gastrointestinal tract within the lumen of the adjacent segment.⁽³⁾ Intestinal intussusception in adults is rare,⁽⁴⁾ usually secondary, rather than primary as in infants.

In contrast to children, it is a rare cause of abdominal emergency in adults representing 1-2% of all bowel obstructions.⁽⁵⁾ The classical symptomatology may be absent in adults, making diagnosis difficult. Adult intussusception is rare, and few cases caused by intestinal tuberculosis have been reported.

CASE HISTORY: 50 year old male patient presented to surgical emergency department with complaints of abdominal pain of 4 days duration. Symptoms were aggravated in last 1 day. Pain was associated with one episode of vomiting which was non-bilious. He also gives history of constipation for three days.

There was no history of passage of fresh or altered blood in stools. He was a smoker for 15 years and was alcohol dependent. On physical examination, abdominal tenderness was present over umbilical and right lumbar regions. Right iliac fossa was empty on palpation with a firm mass measuring 10*6cm in the right hypochondrium.

There was no hepatosplenomegaly and no clinical evidence of free fluid in abdomen. There was "red- currant jelly" stool seen on per rectal examination.

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Fig. 1: Chest X-ray



Fig. 2: Abdomen X-ray

USG Abdomen:



Fig.3

Mass with alternating hypo and hyper-echoic rings noted in RIF suggestive of intussusception “Target sign”. (6,7)

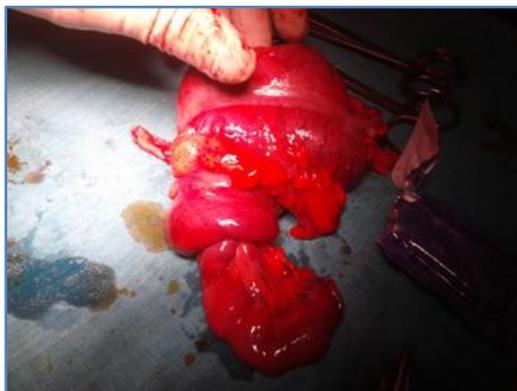


Fig. 4: Intraoperative specimen

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After pre-operative optimization, patient was taken up for emergency laparotomy through a midline longitudinal incision. Ileocolic intussusception with apex reaching till proximal transverse colon with a polyp inside ascending colon. Intussusceptum was gangrenous. Liver was cirrhotic with macronodules.

Rest of the abdomen was grossly normal. Right hemicolectomy and stapled ileotransverse anastomosis was done. During the initial postoperative period patient was in shock. Inotropes were administered and gradually tapered off.

Patient started on i/v corticosteroids and managed in ICU. Sputum microscopy revealed 3+ for acid fast bacillus on post-operative day 6. ATT- Category 1 started on post op day 6. Oral feeding started on post op day 7. Discharged on post op day 14. Histopathologic examination showed ileum with caseating granulomatous inflammation consistent with tuberculosis. There was hemorrhagic necrosis. Appendix showed no significant pathology.

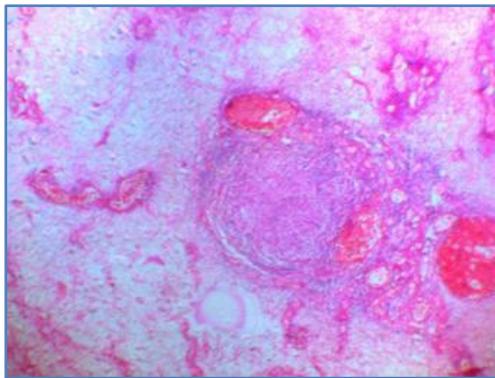


Fig. 5: Edematous submucosa with a granuloma

DISCUSSION: Intussusception in children is often an idiopathic condition and treated non-surgically by radiologic reduction.⁽³⁾ Adult intussusception is far less common, and usually have a distinct pathologic lead point^(3,4), which can be malignant in up to half of cases.⁽⁷⁾

Intussusception as a cause of intestinal obstruction in adults, constitutes 1-2% of all cases^(6,7) present with a history of intermittent abdominal pain and signs and symptoms of bowel obstruction.

CT scan is the investigation of choice, where a "target sign" may be seen.^(5,7-9) Treatment is laparotomy, surgical resection of the involved segment and the lead point, which needs to undergo pathologic evaluation to rule out an underlying malignancy.⁽⁵⁻⁸⁾

Tuberculosis can be termed India's national disease.⁽¹⁾ Disseminated TB is the simultaneous involvement of two or more non-contiguous sites/organs. Our patient is a case of disseminated progressive primary TB, the primary site of involvement being lung. 1% of patients with PTB have intestinal involvement. Ileocaecal is the most common site.^(1,6) Bacillus localizes in mucosal glands and spreads to Peyer's patches. This leads to inflammation, ulceration and local attempts at walling off infection thus leading to symptoms.

Pathology could be either hypertrophic or ulcerative. Cases of adult intussusceptions caused by intestinal tuberculosis have been rarely described in literature. Patient may present after TB has been detected^(2,10) or TB is detected only after surgery⁽⁹⁾ as in our case.

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Patient may present with acute symptoms or chronic symptoms of obstruction.^(4,11,12) The lack of specific signs and symptoms of abdominal tuberculosis involving the intestinal tract frequently leads to missed or delayed diagnoses, which can result in severe complications that are associated with intestinal tuberculosis, including obstruction, perforation, and fistula formation.⁽¹³⁾

Response to anti-tubercular drugs is generally very good and surgical intervention in patients with abdominal tuberculosis is around 25%-75 %.⁽⁹⁾ In our patient intestinal involvement is secondary to pulmonary tuberculosis. After surgical resection of the involved segment and anastomosis, and confirmation of diagnosis by sputum microscopy and histopathology, anti-tubercular therapy was started. Category 1 ATT is originally 6 month regimen. In cases of extrapulmonary tuberculosis no clear guidelines exist regarding the duration of treatment: left to the discretion of the treating doctor.

In extrapulmonary cases regimens of up to 18 months are being used. Although Directly Observed Therapy (DOTs) have been proved to be effective in patients with pulmonary tuberculosis, lymph nodal tuberculosis, however, there is a lack of data on efficacy of DOTs in other extrapulmonary disease including abdominal tuberculosis.^(1,14) In our case, patient is started on Cat I ATT: standard duration of 6 months is to be extended to 10-12 months. Patient responded to the treatment well. On review 1 month after discharge, patient had gained 5kg of weight and was symptom free.

CONCLUSION: Tuberculosis presenting with intussusception is one of the rarest diseases, but still have to be kept in mind in a patient with productive cough. Similarly any tuberculosis patient presenting with abdominal pain or acute or chronic symptoms of intestinal obstruction, intussusception has to be kept in mind and CT evaluation should be considered.

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AUTHORS:

1. Jomine Jose
2. Vergis Paul
3. Anup Paul Varkey
4. Danny Joy

PARTICULARS OF CONTRIBUTORS:

1. Assistant Professor, Department of General Surgery, MOSC Medical College, Kolenchery.
2. Professor and Unit Chief, Department of General Surgery, MOSC Medical College, Kolenchery.
3. Assistant Professor, Department of General Surgery, MOSC Medical College, Kolenchery.
4. Post Graduate Student, Department of General Surgery, MOSC Medical College, Kolenchery.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Jomine Jose,
Assistant Professor,
Department of General Surgery,
MOSC Medical College,
Kolenchery,
Ernakulam-682311.
Email: jomine9@gmail.com

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