An Unusual Case of Intussusception in A Case of Abdominal Tuberculosis with HIV Disease

MJ Algotar*, Praveen Tunganwar**, Ashish Dey***, Preveen Bijwe***, Mujtaba Shaikh***

Abstract
Intussusception is a condition where a segment of bowel ‘telescopes’ into the lumen of the immediately adjacent part. A condition which is mostly idiopathic in children, less than 2 years but associated with some pathology in older patients. Among the pathologies that initiate the process of invagination, the most common ones are lymphomas, Meckel’s diverticulum, hamartomatous polyps, haemangiomas and inverted appendiceal stumps. Most cases occur in otherwise healthy male children and are commonly of ileo-colic type.

In idiopathic cases it is suggested that hypertrophy of the Payer’s patches in the terminal ileum from an antecedent viral infection acts as the starting point. Peristaltic action of the intestine then causes the bowel to prolapse into the lumen adjacent to it.

In contrast to the conservative approach by hydrostatic reduction in case of children less than 2 years, the definitive treatment for adult intussusception is operative intervention.

Introduction
Adult intussusception is very rare. Various references reveal the following data.

- Only 13 cases of adult intussusception were reported over a period of 13 year by Begos et al.
- Moreover only 58 adult cases of intussusception were seen at Massachusetts general hospital over a 30 year time span.
- Only 34 cases were reported in Cornwall Medical Centre, New York over 36 years.

Majority of adult intussusception has a definitive cause. Benign and malignant intraluminal masses such as lipomas, adenocarcinomas and metastatic melanomas are the most frequent lead points of such intussusception.

In one such study the incidence of appendiceal intussusception was only 0.01%. The diagnosis of such an intussusception is difficult and only made during surgery.

Tumours caused around 63% of adult intussusception. Malignancy is higher in colonic (33%-77%) than for small bowel intussusception (10%-50%).

A comparative study conducted separately to know the aetiological factors and their incidence is shown below.

A survey by Huang, Deptt of internal medicine in Chang Gung Memorial Hospital, Taiwan showed the following results. Data obtained from 45 cases of adult intussusception proven by surgery was collected from 58000 surgeries. Their results are shown below.

Although ileo-colic intussusception remains the most common cause of intussusception in both adults and infants, the incidence of colo-colic intussusception in adults is 8%-19%
as compared to 2% of infant population.

Case Report

A 35 year old HIV positive male with no previous history of tuberculosis in the past presented in the casualty with features of small bowel obstruction viz. periumbilical colicky abdominal pain, vomiting, abdominal distension since 2 days. He gave no history of weight loss or anorexia in the immediate past or recent passage of blood in stools or black tarry stools.

On physical examination, the patient’s abdomen was soft and distended with generalised tenderness but no palpable lump. Initial laboratory studies showed Hb – 9.3, WBC-7,200 and normal serum electrolytes. CT showed thickened bowel walls with mesenteric thickening and mesenteric lymph nodes. X-ray abdomen showed few air fluid levels. Patient was treated conservatively as a case of sub-acute intestinal obstruction and once the patient settled down by nil by mouth and gastric decompression by Ryle’s tube, diet was slowly started after 4 days. Patient started having similar symptoms and had to be kept nil by mouth again. On the 9th day after admission patient complained of severe abdominal pain and features of shock. X-ray abdomen showed gas under diaphragm and patient had to be taken up for emergency surgery.

On exploration an ileo-ileal intussusception was found with the intussusceptum extending nearly up to the ileo-caecal junction with proximal perforation in the dilated segment. Manual reduction was not attempted due to frank peritonitis and gangrenous bowel. Quadrucolectomy with ileo-ascending anastomosis was performed. Extensive mesenteric lymphadenopathy was also noted. After opening up the specimen a 1 x 1 cm lymph node in the mesentery near the tip of the intussusceptum along with another mesenteric lymph node was removed and sent for histopathology. The specimen was preserved for mounting.

The pathological report showed mesenteric lymphadenopathy. Postoperative course was uneventful and patient was discharged with 4-drug AKT regime (Figs. 1 and 2).

Discussion

Adult intussusception is the cause of 1% or less of all cases of obstruction in adult population.

The clinical presentation is variable. Features of obstruction are evident but definitive diagnosis of intussusception is difficult preoperatively and often only possible on the operating table.

Patients often present with features of

Table 1

<table>
<thead>
<tr>
<th>Causes</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Benign causes</td>
<td>55.6%</td>
</tr>
<tr>
<td>Malignancy</td>
<td>35.6%</td>
</tr>
<tr>
<td>Idiopathic</td>
<td>6.6%</td>
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<td>Tuberculosis</td>
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Most common are Polyps-12/25, i.e. 48% of benign causes
M.C. is adenocarcinoma 14/16, i.e. 87/5% of malignancies

Table 2

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<th>Small bowel</th>
<th>Colonic</th>
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<tbody>
<tr>
<td>Malignancy</td>
<td>48%</td>
<td>43%</td>
</tr>
<tr>
<td>Benign</td>
<td>52%</td>
<td>57%</td>
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Table 3

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<th>Azar and Berger</th>
<th>Huang W.S.</th>
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<tbody>
<tr>
<td>Incidence of adult intussusception</td>
<td>1%</td>
<td>0.08%</td>
</tr>
<tr>
<td>Obstruction due to intussusception in adults</td>
<td>5%</td>
<td>3%</td>
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Fig. 1: Shows the tip of the intussusceptum showing gangrenous changes.
bowel obstruction like nausea and vomiting, abdominal distension, pain and tenderness. However they do not permit a definitive diagnosis of intussusception.

Of particular interest in our case was the HIV positive status with intussusception due to abdominal tuberculosis. The exact incidence of abdominal tuberculosis being the cause and the lead point of intussusception is not known. Very little data is available in standard textbooks or over the internet. However in a similar case presentation by Dr. Roy Gulick of New York University School, the focal lead point in intussusception in an HIV positive patient with diagnosed pulmonary tuberculosis was Kaposi’s sarcoma.3

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References