



Rare Case of Caecal Non Hodgkins Lymphoma Presented as Intussusception – Case Report and Literature Review

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Abstract: A 68-year-old man presented at Pacific institute of medical sciences emergency department in May 2023 with pain in the epigastric region. Physical examination revealed no pertinent findings. Blood and urine tests were normal, and erect abdominal x-ray revealed a distended small intestine. CT scan shows ileo-colic intussusception. During laparotomy a large mass of 5x5 cm in size was detected in the caecum. It is very important to do CT scan for patients with long-standing abdominal pain and vomiting to achieve a definitive diagnosis of intussusception.

Keywords: Non Hodgkins Lymphoma, Ileocaecal Intussusception, Hemicolectomy, Epigastric swelling, Exploratory Laprotomy, Telescoping Bowel, Target sign.

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INTRODUCTION

Intussusception is commonly defined as telescoping of a proximal part of an intestinal loop towards the distal part of the loop [1]. This condition is more frequent in children than in adults.

Typical clinical presentations include colicky abdominal pain, mucus or blood-tinged stool, emesis, diarrhea [2, 3] and a palpable mass on the abdomen during physical examination [3].

The causes of intussusception in adults are diverse. The inducing factor is a pathology within the bowel wall that serves as a leading point which promotes invagination and telescoping¹. Common examples of a lead point include benign polyp, a malignant lesion, Meckel's diverticulum, Crohn's disease and gynecologic conditions such as endometriosis are known to cause intussusception [4].

Intussusception has been categorized into 4 subtypes depending on the involved bowel parts namely: enteric, ileocolic, colocolonic and sigmoidorectal Intussusception [5].

The common complications associated with this condition include small bowel obstruction, bowel ischemia, necrosis, bowel perforation with peritonitis, and sepsis [6] as a result of urgent care [7].

Management for adult patients with presenting signs and symptoms suggestive of Intussusception or other obstructive bowel pathologies often involves detection via an abdominal computed tomography (CT) scan [8, 9] which is often the gold standard for early detection [5, 9]. In contrast to the pediatric population, where endoscopy is diagnostic and usually therapeutic, intussusceptions are beyond the reach of endoscopes

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in their geriatric counterparts. The preferred surgical intervention is an exploratory laparotomy with bowel resection and anastomosis or laparoscopic bowel resection with bowel anastomosis [10]. Surgical intervention is required due to possible bowel obstruction, ischemia, or necrosis [1].

CASE REPORT

A 68-year-old man presented at Pacific institute of medical sciences emergency department in May 2023 with pain in abdomen of 2 months duration. The pain was diffuse, intermittent and more in epigastric region. There is no history of abdominal distension, and he was passing flatus. His condition gradually worsened from time to time. There was no history of fever, no bloody vomiting, and no history of jaundice or urinary complaints. There was no known family history of intestinal obstruction. The patient is non - smoker who lives alone and is fully independent with activities of daily living. Patient is a chronic alcoholic in the last 30 years. His nutritional status appeared adequate, and his general physical examination was essentially normal.

His systemic examination of chest, CVS, and CNS revealed no obvious abnormality. On abdominal

examination he had a mild distended abdomen. There were no visible scars. Abdomen was diffusely tender in epigastrium and right hypochondrium not associated with nausea and vomiting with no palpable organomegaly. A palpable swelling of approx. 8x3 cms felt in epigastric and right hypochondriac region and mild tenderness is present at the site. Patient is passing flatus and stool with normal bowel sounds. On per rectal examination there is no external opening seen with normal anal tone and rectum was empty and no ballooning. Examination of external genitalia, hernial orifices and rectal angels revealed no abnormality.

On USG there is approx. 13cms in size long segment of large bowel shows bowel within bowel appearance (seen in right lumbar region and extending up to epigastric region), (Figure 1) internal sub centimeter sized lymph nodes, tubular blind ended structure, bowel wall thickening. To confirm the diagnosis, the patient advised for CECT whole abdomen which shows ileo-colic intussusception seen with the intussusceptum comprising of distal ileum, IC junction, caecum, ascending colon, appendix along with surrounding mesentery and multiple enlarged lymph nodes; the intussusceptions comprises of the transverse colon (Figure 2).



Figure 1: Showing USG - **Bowel withing Bowel - Donut sign**

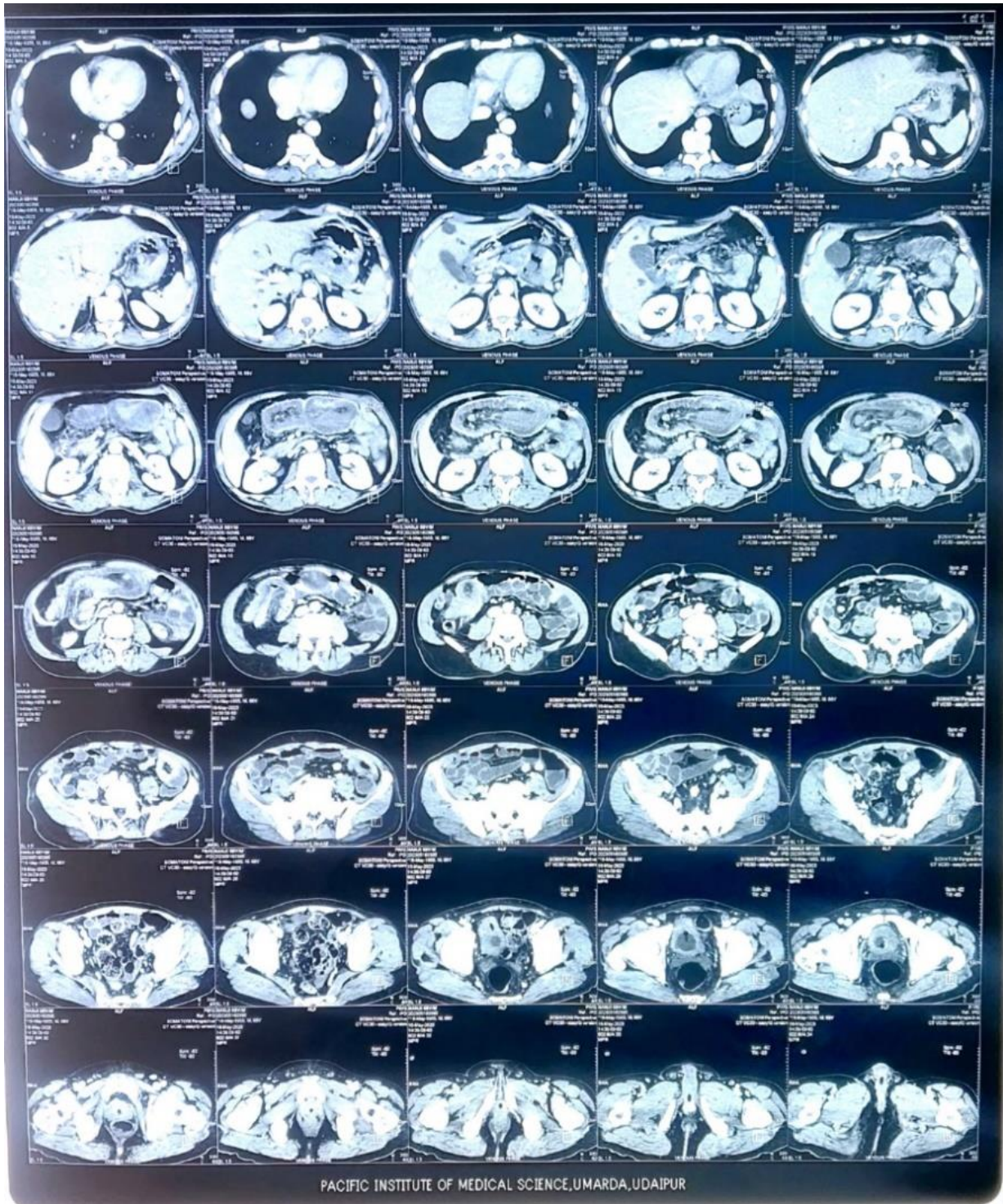


Figure 2:

Laboratory findings showed that complete blood count, biochemical parameters, and urinalysis was within the normal limit.

Upon admission, the patient was kept nothing per mouth (NPO) and was given normal saline intravenous fluid, broad spectrum antibiotics.

Patient taken for exploratory laparotomy under general anesthesia. During laparotomy a bowel in a bowel was identified (Figure 3) which was ileo-colic intussusception, reduction was attempted manually but the large intestine was too greatly looped, tangled and edematous to be reduced so resection was decided.

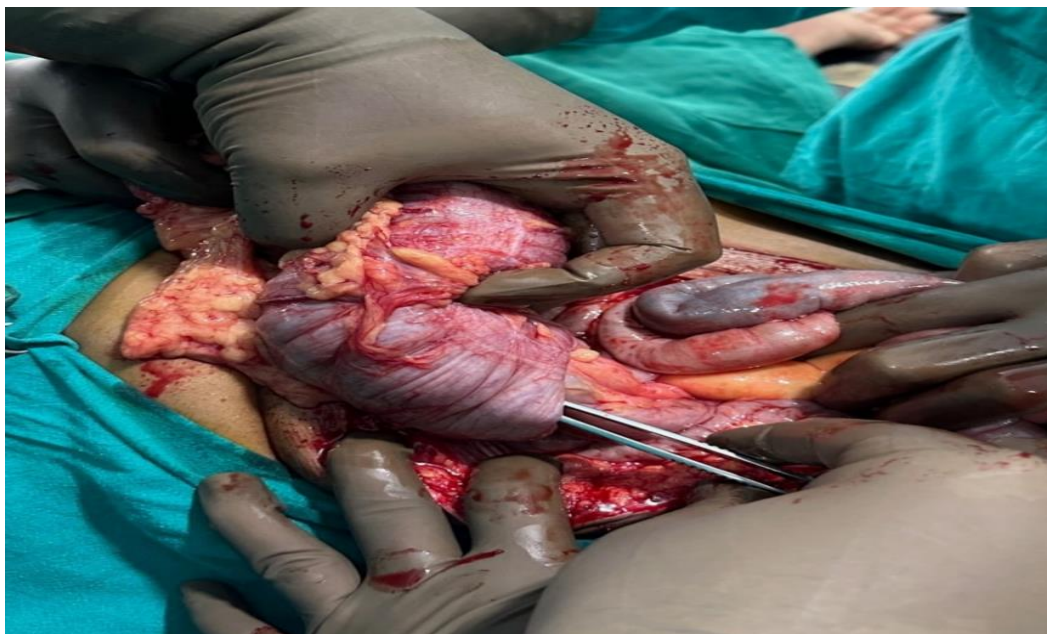


Figure 3:

Right hemicolectomy was done and around 20cms of bowel resected which consists of ileum, appendix, caecum and ascending colon which was later sent for biopsy and side to side anastomosis was done in two layers. no adhesion, signs of bowel perforation or ischemia, or any other complications were noted intraoperatively. Postoperative recovery was uneventful. Histopathology report returned positive for high grade of non-Hodgkin lymphoma. Patient discharged on 10th day and referred to oncology department for chemotherapy.

DISCUSSION

Intussusception mainly occurs in infants and children. Typical manifestations of intussusception involve abdominal pain, bloody stool, and abdominal mass [11]. Adult intussusception is rare, which only accounts for 5 % of all intussusception cases.

The clinical manifestations of adult intussusception are not as typical as in children. Signs of adult intussusception were recurrent abdominal pain only. Bloody stool and abdominal mass were rarely reported [12]. About 90 % of intussusception in children is primary, while more than 90 % of intussusception in adults is secondary [13].

The tumor is the main cause of intussusception in adults, accounting for 63–77 % of the total cases. Malignant tumors are the most common cause of intussusception caused by tumors (50–73%) [14]. The mechanism is mainly due to intestinal strictures induced by intestinal tumor, which results in incomplete intestinal obstruction. The peristaltic wave was interrupted and blocked at the site of the tumor, and local irritation occurred

frequently. Disruption of the peristaltic rhythm, increased force of peristaltic contraction, movement of the tumor with peristalsis, or forward movement of intestinal contents may all result in intussusception [15].

Early diagnosis of intussusception in adults is difficult, and it might be misdiagnosed in an emergency easily. The patient in this case report was presented with abdominal pain. It is difficult to make a definite diagnosis based on the signs and symptoms. CT plays an important role in the diagnosis of intussusception in adults. Intussusception can be diagnosed according to specific signs detected on the image of a CT scan, such as “concentric circle sign” or “target sign” or “bull’s eye”, “comet tail sign” or “kidney-shaped sign”. These signs represent anatomic relationships between the layers of the intestinal wall, the intestinal lumens, and the mesentery [16].

Once the diagnosis of adult intussusception is confirmed, surgical treatment is recommended: (1) If there was no necrosis, a manual reduction should be carried out. After the reduction, the bowel should be carefully examined for tumor, polyp, diverticulum, focal necrosis, and other types of lesions. (2) If necrosis of the intestine is found, manual reduction is not recommended. An intestinal resection should be performed promptly. (3) To avoid squeezing, which can cause the spread of cancer cells to the intestine or bloodstream, patients with suspected malignant tumors should not receive the manual reduction. Intestinal resection and lymph node dissection should be performed instead [17].

After the surgery, not only can the histological diagnosis of the lymphomas be established but also accurate staging can be made. Chemotherapy and radiotherapy have been used either alone or in combination with surgery [18]. In addition surgery in combination with chemotherapy was superior to any other treatment combination in localized disease and in disseminated cases [19]. Unfortunately, our patient refused post operative chemotherapy.

CONCLUSION

Adult intussusception remains a rare cause of persistent or intermittent chronic abdominal pain. In contrast to its pediatric counterpart the treatment is almost always surgical but preferably in combination with chemotherapy. For intussusception due to non-Hodgkin's lymphoma surgery should be performed by following oncological principles high degree of suspicion is required to diagnose in these cases & proper management is necessary.

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