

Original article:

Adult Ileocolic Intussusception due to Non-Hodgkin's Lymphoma–Case Report

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ABSTRACT:

NHL is much more common than HL. In 1871, Sir Jonathan Hutchinson was the first to successfully operate on a child with intussusception. In approximately 2-12% of children with intussusception a surgical lead point is found. Occurrence of surgical lead points increases with age and indicates that the probability of non-operative reduction is highly unlikely. The prevalence of malignancy as the cause of enteroenteric intussusception is as high as 30% and the vast majority are metastatic. Primary malignant tumors of the small intestine are very rare accounting for less than 2% of all gastrointestinal malignancies. Intestinal lymphoma constitutes 10% to 20% of all small intestine neoplasms and 20% to 30% of all primary gastrointestinal lymphomas. Here we discuss the case of Ileocolic Intussusception as a result of Non-Hodgkin's Lymphoma.

Key words: Non-Hodgkin's Lymphoma, Hodgkin's Lymphoma, Intussusception

INTRODUCTION:

The intussusception was firstly reported in 1674 by Barbet of Amsterdam. Overall the male-to-female ratio is approximately 3:1. The pathogenesis of idiopathic intussusception is not well established. Adult intussusception represents 5% of all intussusceptions and 1% to 5% of all cases of intestinal obstruction in adults. In the adult population approximately 40% of them are caused by primary or secondary malignant neoplasms. The ileum is the most common site affected by small intestine lymphoma followed by the jejunum and duodenum. While intussusception is a very rare presentation of NHL the most common lymphoma is diffuse large B-cell NHL. This is one such case of Ileocolic Intussusception as a result of Non-Hodgkin's Lymphoma.

CASE REPORT:

A 30 years old male patient presented to the Emergency Department of Peoples College of Medical Sciences and Research Centre Bhopal on November 2017 with complaint of intermittent pain in whole abdominal for 3 months that was occasional in onset, on & off, dull in nature, localized to the right iliac fossa. It was non-radiating and associated with occasional episodes of vomiting. He had average built and hemodynamically stable. On Per abdomen examination no mass found.



Figure 1 Intraoperative Finding of Ileocolic Intussusception

USG showed a bowel mass measuring 4.8 cm X 5.3 cm in right sub hepatic region suggestive of intussusception with hypoechoic lesion (2.4 cm X 2.2cm) within it, with mildly dilated proximal bowel loops. CECT abdomen showed ileo-colic intussusception with lead point at distal portion of ascending colon causing proximal dilatation of small bowel loops.

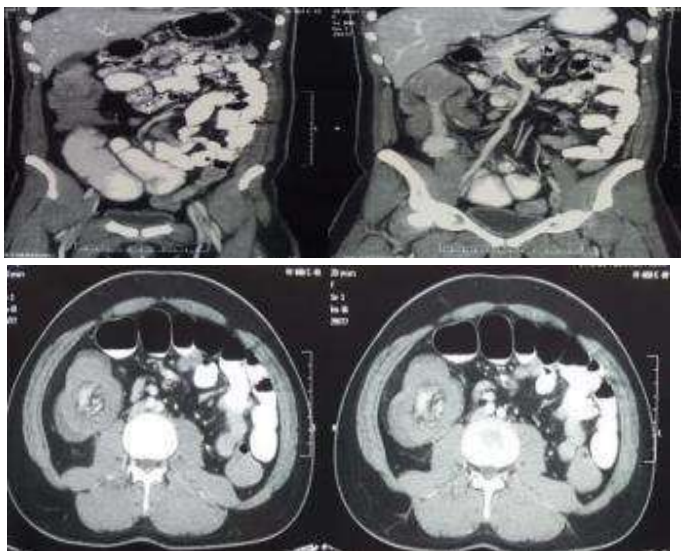


Figure 2 CT scan images showing loop within a loop s/o intussusception

Pre-Operative workup was done and the patient underwent exploratory laparotomy which revealed ileocolic intussusception and a firm intraluminal lump at distal end of ileum acting as lead point. A right hemicolectomy with ileo-transverse anastomosis was done. Patient recovered well and his post-operative period was uneventful. Histopathology report revealed lymphoproliferative neoplasm –Diffuse Large B Cell Non-Hodgkin's Lymphoma.

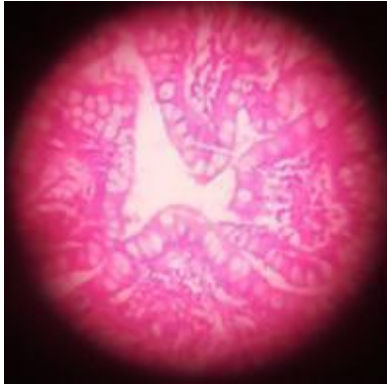


Figure 3 Microscopic Image showing Large B Cell Hodgkin's Lymphoma

DISCUSSION:

The most common site of involvement is the gastrointestinal tract followed by the pulmonary system, thyroid, skin, genitourinary system and central nervous system. NHL is much more common than HL. The gastrointestinal tract is the most commonly involved site for extra nodal NHL accounting for 20% to 50% of all extra nodal disease. The most common primary site is the stomach followed by the small intestine, colon, and rarely other gastrointestinal organs. Gastrointestinal NHL represents between 1% and 4% of all gastrointestinal malignancies and 10% to 20% of small bowel. While HL develops from a specific abnormal B lymphocyte lineage, NHL may derive from either abnormal B or T cells. There are five subtypes of HL and about 30 subtypes of NHL. There are many classifications of gastrointestinal tract lymphoma. For simplicity clinical staging is based on the Ann Arbor classification and histopathologic staging is based on the World Health Organization (WHO) classification. According to this classification lymphomas of the gastrointestinal tract generally fall into one of six categories: extranodal marginal zone mucosa-associated lymphoma tissue (MALT lymphoma), follicular lymphoma, mantle cell lymphoma, diffuse large B-cell lymphoma and Burkitt's lymphoma. Many of the NHL subtypes look similar but they are functionally quite different and respond to different therapies with different probabilities of cure. The most appropriate treatment modalities for primary gastrointestinal lymphomas are still controversial. Some Authors advocate that only surgical procedures performed with regard to oncological principles are sufficient while others support that addition of chemotherapy to surgery increases survival.

Generally, chemotherapy is recommended along with surgery in cases with poor prognostic factors such as high LDH level, T-cell phenotype, extra nodal involvement of ≥ 2 , Ann Arbor stage of III to IV, age of > 60 years and ECOG performance status of ≥ 2 . High positivity rates of the Ki67 proliferation index immunochemically correlate with the aggressive course of a tumor. Thus, one must take this into consideration when scheduling a treatment approach. In localized primary and in low-grade intestinal lymphomas the most appropriate approach is to perform

different chemotherapy protocols along with surgery in cases with the afore mentioned poor prognostic factors. In secondary gastrointestinal lymphomas chemotherapy should be performed first with regard to features of primary disease followed by large or limited surgery with regard to the status of disease in the intestinal system. However, the size of the surgical procedure should be determined according to intra operative findings in cases requiring urgent surgery because of signs and symptoms of intestinal obstruction.

The preoperative diagnosis of adult intussusception is difficult because the clinical presentation is often nonspecific and the condition is rare. Ultrasound is considered to be a useful tool for the diagnosis of intussusception in both children and adults. Its classical imaging features include the target or doughnut sign in the transverse view and the pseudo kidney, sandwich, or hayfork sign in the longitudinal view. Ultrasound has a sensitivity of 98% to 100% and a specificity of 88% for diagnosing intussusceptions. Abdominal CT is currently considered the most sensitive radiological method for confirming intussusception with a reported diagnostic accuracy of 58% to 100%. On CT a bowel-within-bowel configuration suggested by mesenteric fat and vessels compressed between the walls of the small bowel is pathognomonic. For diagnosing intussusceptions- with laparoscopy (100%), followed by CT (57%-93.9%), colonoscopy (42.1%-45.4%), and barium enema (45.4%-73%).

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