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Case Report

Intussusception as an acute abdomen caused by non Hodgkin's lymphoma: A rare case

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E-mail: mrinal.tandon@yahoo.in**Abstract**

In children, non-Hodgkin's lymphoma has been found to be the lead point in intussusception involving the terminal ileum. We present here a case of ileal primary non-Hodgkin's lymphoma which presented as intussusception, highlighting the presentation of this patient, with a brief review of the literature.

Keywords: Intussusception; Non Hodgkins Lymphoma

1. Introduction

Intussusception often occurs around 1 year of age, with a peak incidence between 4 and 7 months[1]. In infants aged 9-24 months, it is usually primary i.e. they do not have an identifiable specific lead point. A specific lead point is more commonly found in children older than 3 years[2]. Though uncommon, primary Non Hodgkin's lymphoma (NHL) is found to be the lead point in intussusception, commonly involving the terminal ileum[3,4]. Here we present a case of ileal primary Non Hodgkin's lymphoma which presented as intussusception, and we would like to share the presentation of this patient, with a brief review of the literature.

2. Case report

A 12 year old female reported to causality with complaints of abdominal pain in the lower right guardant of abdomen from the last one month with increased intensity from the last two days with history of fever(low grade) on and off and vomiting since two days. On clinical examination the patient was afebrile, pulse 98/min, B.P 110/70mmhg, with no pallor, no icterus & no pedal edema. On per abdominal examination, tenderness positive at umbilicus and RIF, no palpable mass & bowel sounds audible. Laboratory investigations revealed Total

leucocyte counts of 7,800/mm³, DLC (P-73, L-24, M-03, E-01%) with S. Creatinine 0.73mg/dl & S. Urea 22.0mg/dl. X-Ray abdomen standing was within normal limits. USG abdomen revealed an ill defined heterogenous predominantly hypoechoic lesion of size 4.5x4.2 cm noted in the infra hepatic region just anterior to lower pole of right kidney. Also there is a well defined blind ended aperistaltic non compressible, tubular structure of average diameter 7mm & perilesional fluid collection noted in RIF. Few RIF lymph nodes were also noted.

2.1 Impression

- 1)Heterogenous lesion in infrahepatic region.
- 2)Acute on chronic appendicitis.

On CECT ileo-colic intussusception with terminal ileum in the proximal part of ascending colon with normal enhancement in its wall.

The involved segment of the terminal ileum was edematous. No evidences of obstruction/perforation/ gangrenous changes were seen in the involved bowel loops. Lead point could not be differentiated from the edematous loops. The patient was taken to operation theatre for exploratory laparotomy. There was e/o Ileo-colic intussusception at terminal ileum, 2 inches from ileo caecal junction, Terminal ileum leading into cecum. Multiple mesenteric lymphadenopathies with maximum size of

4x4 cm near terminal ileum. Appendix was inflamed; Intussusception reduced. Mass palpable 2 inches from the ileo-cecal junction at the antimesenteric border. Mass excised with the segment of ileum. Ileum closed in two layers. Appendicectomy was done. Mesenteric lymph node biopsy done. Post operative course was uneventful.

2.2 Histopathology reports

Histological features suggestive of non-Hodgkin's lymphoma probably Burkitt's lymphoma and acute appendicitis.

2.3 Immunohistochemistry report

CD 10- Positive, CD 20- Positive, Ki-67 labeling index- 37%. Patient was discharged on 12th postoperative day. Patient was advised chemotherapy in consultation with medical oncologist.

Figure 1: Invaginating terminal ileum in caecum & ascending colon

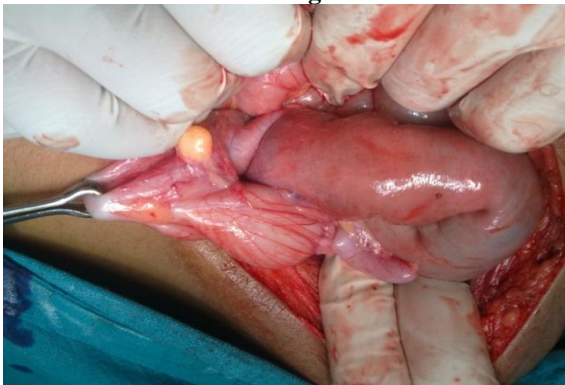


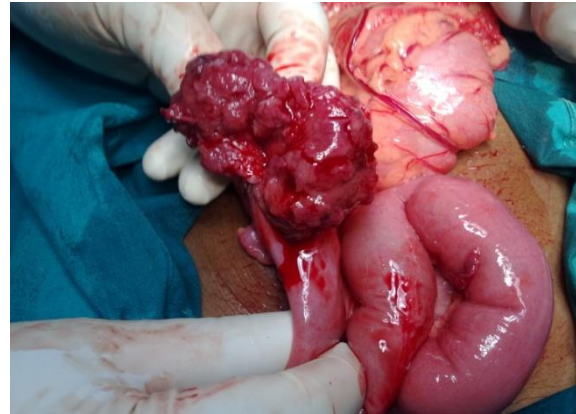
Figure 2: Terminal ileum showing growth at antimesenteric border, about 1 inch from I/C junction



Figure 3: Invaginating growth was gradually released manually



Figure 4: Proliferative growth/mass seen after released



3. Discussion

Though uncommon, primary Non Hodgkin's lymphoma (NHL) is found to be the lead point in intussusception, commonly involving the terminal ileum[3,4]. Primary Non Hodgkin's Lymphoma of the gastrointestinal tract is the most common extranodal lymphoma[5]. Small and large intestines are the most frequent sites of involvement in the pediatric age group[6]. It is most commonly found in the ileum, where the greatest concentration of gut-associated lymphoid tissue is present. They are commonly derived from B-cells from the lymphoid tissue present in the lamina propria and submucosa. The most common lead point in intussusception has been found to be the Meckel's diverticulum[2,4,7,9].

Other lead points that have been reported are polyps, duplication cyst, carcinoid, leiomyoma, hemangioma, and buried appendectomy stump[3,4,8]. Lymphoma is the most common malignant lesion of small bowel in children[4]. Hence, in cases of intussusception, especially in the older age group of the children, we need to keep a high index of suspicion for malignant lymphoma of the bowel. The importance of resection of bowel containing any slightest lesion, along with removal of the regional lymph nodes, is stressed. Complete resection of the tumor was shown to have the added advantage of avoiding bowel perforation, gastrointestinal hemorrhage or the tumor-lysis syndrome after the initiation of chemotherapy[14][16]. In NHL involving the bowel, surgical resection has been associated with improved outlook by complete resection in localized disease confined to the bowel wall and diagnostic biopsy in advanced diseases[17]. Hence, with high suspicion of lesions, considering the age of the child and the bowel involvement, resection of the diseased bowel may be the single most important decision in salvaging these children.

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