

## B-cell lymphoma: a lead point for an intussusception in a boy of 5 years

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### Abstract:

Diffuse B-Cell lymphoma is the most common type of Non-Hodgkin's lymphoma. Non-Hodgkin's lymphoma accounts for 17% of gastrointestinal lymphoma leading to intussusception. Primary gastrointestinal tumours are the rare cause of intussusception in children. The variability in clinical presentation contributes in delayed diagnosis leading to the poor cure rates. We report a rare case of B-Cell lymphoma in a 5 years old boy who presented to emergency department of Hamdard University Hospital with a history of abdominal pain. On abdominal examination abdomen was soft but distended with no palpable mass. Rectal examination was unremarkable. Finally turned out to be a lead point for intussusception.

**Key Words:** B-Cell lymphoma, Intussusception, Non-Hodgkin's lymphoma.

### Introduction:

Intussusception is a series of disorder in which part of the intestine slides into an adjacent part of the intestine. This "telescoping" often blocks food or fluid from passing through and compromising the blood supply resulting in perforation, infection, abscess and gangrene.<sup>1</sup> Idiopathic intussusception is the most common cause of intestinal obstruction in children younger than 2 years with boys being more affected than girls.<sup>2,3</sup> Intussusception is rare in adults. Most cases of adult intussusception are the result of an underlying precipitating lesion (the lead point), such as a tumour but for pediatric group this finding is rare.<sup>1,3</sup> Non-Hodgkin's lymphoma accounts for 17% of gastrointestinal lymphoma.<sup>4,5</sup> Diffuse B-Cell lymphoma is malignancy of B-Cell and is the most common type of Non-Hodgkin's lymphoma.<sup>6</sup>

### Case Presentation:

A 5 years boy presented to us with the complaints of on and off abdominal distention, episode of severe colicky abdominal pain, vomiting and decrease appetite for one and a half months. He on and off complaints of appearance of mass in left lumbar and right iliac fossa which resolve

spontaneously. No association with food intake reported. There was no history of vomiting, fever, constipation, weight loss, diarrhea, pallor and bleeding per rectum. On abdominal examination, abdomen was soft but distended with no mass palpable at the time of examination. Rectal examination was unremarkable.

On investigation his blood count, biochemistry and coagulation profile was normal. Plain erect radiograph of abdomen showed dilated small bowel loops. Ultra-sonography was unremarkable. Barium Enema showed large lobulated soft tissue density mass in ascending colon seen at hepatic flexure with finding consistent with intussusception. Further colonoscopy was done which revealed large polyp almost filling the whole lumen seen at hepatic flexure; polyp was mobile and seen to pass from more proximal colon to its base in the hepatic flexure and may have been responsible for intussusception. Exploratory laparotomy was done. Per operatively ileocecal junction and ascending colon was telescoped with enlarged mesenteric lymph nodes. Resection of ileocecal junction, ascending colon and two lymph nodes was done and end to end ileocolic anastomosis was made. Patient was

### Received:

20th September 2015

### Accepted:

17th March 2016

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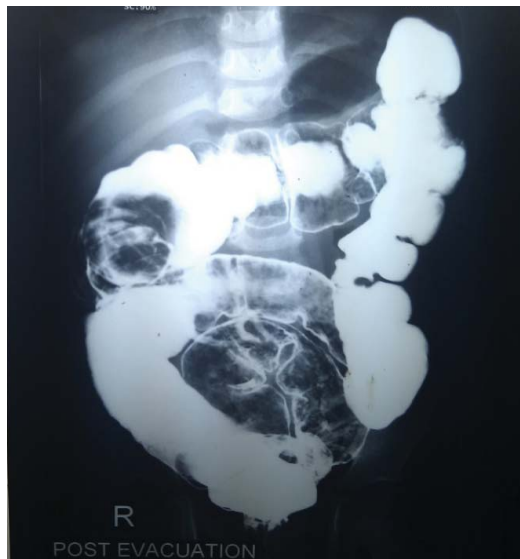


Fig.1:Barium Enema showing Intussusception



Fig.2:Operative appearance of Intussusception

discharged uneventfully. Histopathology and immunochemistry of specimen showed High grade B-Cell lymphoma highly suggestive of Burkett's Lymphoma with CD10, CD20, bcl2, Tdt and Ki67 positive. Patient was then referred to oncology department where he was staged and is on chemotherapy with follow up.

#### Discussion:

Despite of the fact that Non-Hodgkin's lymphoma accounts for 17% of gastrointestinal lymphoma leading to non-idiopathic intussusception, primary gastrointestinal tumors are the rare cause of intestinal obstruction in children, the variability in clinical presentation contribute in delayed diagnosis leading to the poor cure rates.<sup>4,5</sup> Non-Hodgkin's lymphomas present as rapidly growing mass, sometimes associated with fever, weight loss and night sweat which was not so in our case with exclusively intestinal presentation. Intestinal types can be nodal or extra nodal. The diagnosis is confirmed by presence of tumor markers like CD20, CD3, CD30, Ki67, bcl6, Tdt on immunohistochemistry.<sup>7</sup> where as in our case CD10, CD20, bcl6, Tdt and Ki67 were positive. In case of intestinal presentation, surgery is the main stay for diagnosis and alleviation of symptoms. Surgery followed by wneo-adjuvant therapy lead to better outcomes. In some of the literature it is evident that intussusception helps in early diagnosis and better outcomes but it was not so in our case as the tu-

mor was high grade Non-Hodgkin's lymphoma.

**Conclusion:** Non-Hodgkin's lymphoma are the rare gastrointestinal tumor. Non-Hodgkin's lymphomas present as rapidly growing mass, sometimes associated with fever, weight loss and night sweat. To diagnosed such a tumor we need to have high index of suspicion.

#### Role and contribution of Authors:

Dr Muhammad Ali Channa, Associate Professor, Hamdard College of Medicine & Dentistry, Hamdard Universtiy, conceive the idea of writing the article and write the initial write up.

Dr Danish Abdus Samad, postgraduate trainee student wrote the introduciton, collected the references and wrote the discussion.

Prof Masoom Raza Mirza, Professor & Head, Deptt of Surgery, Hamdard College of Medicine & Dentistry, Hamdard University, give the final touch up to the introduction, discussion and conclusion.

**Conflict of Interest:** None

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