

Ileoileocolic Intussusception In A Child Due To Mesenteric Lymphadenitis: A Case Report

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Abstract: Intussusception is second most common cause of acute abdomen in children, following appendicitis. It is seen most commonly in 5-10 months of age. Most common cause of intussusception in children is idiopathic while in adults usually a lead point is seen. Ileoileocolic type of intussusception is seen only 12% found in population. Here we are presenting a case of ileoileocolic type of intussusception in child due to mesenteric lymphadenitis diagnosed intraoperatively. A male baby of 4 months 15 days presented with clinical features suggestive of intussusception and confirmed by ultrasound showing target sign. Patient underwent emergency laparotomy and intraoperatively ileoileocolic intussusception with multiple mesenteric lymphadenopathy was found, some part of ileum was gangrenous for which segmental resection of ileum with ileoileal anastomosis was done.

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I. Introduction

Intussusception is second most common cause of acute abdomen in children, following appendicitis¹⁻³. It is most commonly seen in the first 3 years, and peaks between the 3rd and 9th month. Sudden onset of vomiting, intermittent pain abdomen and rectal bleeding in the form of red currant jelly is the usual presentation³⁻⁵. More than 70% of intussusceptions can be reduced non operatively by resuscitation and air enema. Strangulated bowel and pathological lead point are unlikely to reduce by enema. Recurrent intussusceptions occurs in up to 5% of patients after non operative reduction. In children, more than 80% of intussusceptions are ileocolic. Here we present a case of ileo-ileocolic intussusception in a 5 month old infant due to mesenteric lymphadenitis⁶.

II. Case Report

A 5 month old infant presented with history of pain abdomen, intermittent vomiting, fever and blood in stool for 2 days. On examination there is a palpable mass in the right side of the abdomen. On digital rectal examination, finger was stained with blood and no palpable mass was felt. The infant had leucocytosis in complete blood count. Other haematological parameters are within normal limits. Plain radiograph of abdomen was normal. Ultrasound of abdomen showed multiple, discrete mesenteric lymph nodes, largest measuring 25mm in size. Target sign was noted in the ultrasound scan. There was no free fluid or organomegaly noted in the ultrasound. Review ultrasound showed ileocolic intussusception. Patient underwent emergency laparotomy. Intraoperatively a mass was milked through the caecum and ileo-ileocolic intussusception was found. After complete reduction of intussusceptions, a segment (2 cms) of terminal ileum was gangrenous and friable about 5 cms from ileocecal junction. Resection of the gangrenous ileum and end to end anastomosis of ileum was done. Intraoperatively multiple inflamed mesenteric lymph nodes were found. Largest measuring 20 mm X 10 mm. Biopsy of the mesenteric lymph nodes showed them to be of reactive nature. Postoperative period was uneventful.



Figure 1:USG Scan Image showing "target sign"



Figure 2: largest harvested mesenteric lymph node



Figure 3: Intraoperative picture showing point of entry of ileal loop in colonic loop

III. Discussion

Children with intussusceptions present with pain abdomen and constipation, while passage of red currant jelly stools is a late feature and suggestive of bowel necrosis. Approximately 85-90% of cases are ileocolic and the rest are ileo-colocolic, colocolic or ileo-ileal. Benign lymphoid hyperplasia of the intestinal mucosal and submucosal lymphoid tissue is rare. This occurs mainly in infancy and early childhood and spontaneous regression is the rule. In adults intussusceptions accounts for about 5% of bowel obstruction cases⁷. It can develop following surgery or a bowel tumor acting as a lead point. About 8-20% of entero enteric intussusceptions are idiopathic while the colo-colic type is associated with malignancy. The intussusceptions in patients with acquired immunodeficiency syndromes is generally ileum based and occurs from lymphoma, atypical mycobacterial infection or other unusual inflammatory processes⁸.

On plain radiograph, intussusceptions may be identified as a soft tissue mass associated with surrounding "crecent of gas" and bowel obstruction proximal to it (indicated by air fluid level and bowel dilation)⁹. Plain radiograph is of limited value in the diagnosis of intussusceptions. Ultrasound has permitted a more comprehensive understanding of the anatomy and pathophysiology of intussusceptions. Indicators of ischemia and irreducibility at Ultrasound are fluid trapped in intussusceptions and absence of blood flow at Doppler imaging. On ultrasound, intussusceptions may appear as a ring on axial sections (varies with edema) and in severe cases only two layers are apparent described by some authors as "doughnut sign". In cases of mild edema the various layers of bowels are visible more clearly and hence give a "target appearance". On

longitudinal sections the intussusception has a reniform shape and is sometimes called as “sandwich sign” as seen in our case¹⁰.

Children with intussusceptions associated with a pathological lead point such as Meckel’s diverticulum, polyp, duplication, Henoch-Scholein purpura or appendix are usually older than those with idiopathic disease. After the age of 2 years, a pathological lead point is found in at least one-third of affected children.

IV. Conclusion

Mesenteric lymphadenitis must be treated aggressively in all the cases as the big lymph nodes may act as lead point causing intussusception and can also lead to gangrenous changes in the involved bowel segment leading to resection and anastomosis which becomes inevitable. This case report emphasises the importance of further case series evaluating the correlation between mesenteric lymphadenitis and intussusceptions.

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