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Case Report

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Adult intussusception: unusual cause

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ABSTRACT

Adult intussusception is a rare entity which accounts for 1-5% of intestinal obstructions in adults and just 5% of all cases of intussusception. The basic pathology and management of intussusception in adults differs from paediatric intussusception. Here we present an interesting case of adult intussusception with an unusual cause. A 33-year-old female presented with features of intestinal obstruction. Colonoscopy was done outside our institution which reported a smooth polypoidal mass in the terminal ileum, biopsy report was pending at that time. CT abdomen revealed dilated small bowel with narrowing in the ileo caecal junction. We proceeded with laparotomy. Intraoperatively dilated ileum with intussusception of the ileocecal junction into the ascending colon was found. Right hemicolectomy with ileotransverse colon anastomosis was done. Histopathology revealed Polyp with intussusception, 5cm from ileocecal junction, with sheets of lymphoid cells showing moderate pleomorphism, infiltrating submucosa, muscularis propria, and serosa, margins uninvolved with lymph node- 3/32 positivity. Immunohistochemistry suggested B- cell lymphoma with CD20 positivity and Bcl 2 focal positivity. Routine treatment of Lymphoma after confirming with biopsy have been Chemotherapy. Role of surgeon in lymphoma is presently limited to biopsy, but there are situations like obstruction and perforation, where surgeon should take the lead role

Keywords: GIT Lymphoma, Intussusception, Intestinal obstruction, Non- Hodgkin's lymphoma

INTRODUCTION

Adult intussusception is a rare entity which accounts for 1-5% of intestinal obstructions in adults and just 5% of all cases of intussusception.[1,2] The basic pathology and management of intussusception in adults differs from paediatric intussusception.[3] Always there will be a pathological condition that serves as a lead point in causing intussusception in adults.[4]

Almost 30% of neoplasm in small bowel causing intussusception are malignant in nature in contrast to large bowel where 63-65% are malignant lesion.[5] Here we present an interesting case of adult intussusception with an unusual cause.

CASE REPORT

A 33-year-old female presented with complaints of abdomen distension, colicky pain, vomiting on and off, 5-6 episodes in the past 15 days. Clinically fullness was noted in Right Iliac Fossa, Visible intestinal peristalsis was present. Colonoscopy was done outside our institution which reported a smooth polypoidal mass in the terminal ileum, biopsy report was pending at that time. CT abdomen revealed dilated small bowel with narrowing in the ileo caecal junction (Figure 1).

As the patient developed severe obstructive symptoms, we proceeded with Laparotomy. Intraoperatively dilated ileum with intussusception of the ileocecal junction into

the ascending colon was found (Figure 2). Right hemicolectomy with ileotransverse colon anastomosis was done. Post-operative period was uneventful.

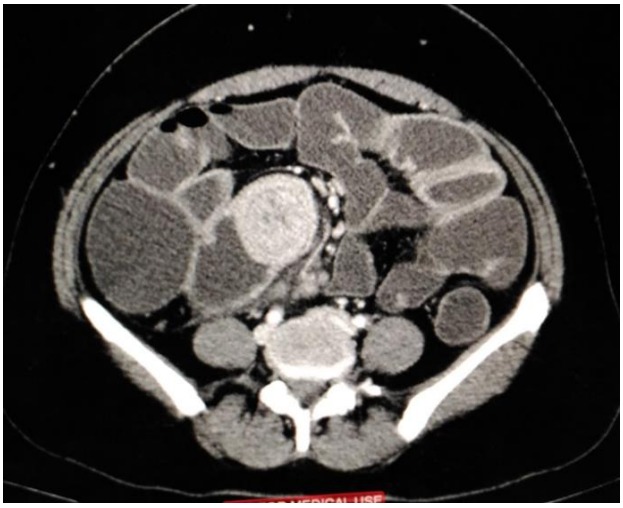

Figure 1: CT Abdomen showing target sign at ileocecal junction.

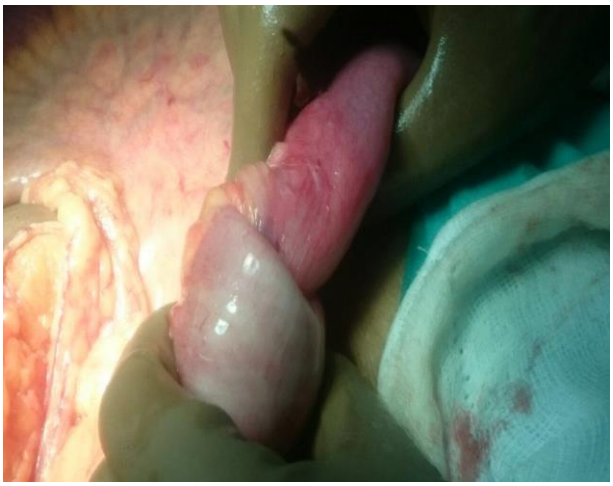

Figure 2: Intraoperative finding of ileocolic intussusception.

Histopathology revealed Polyp with intussusception, 5cm from ileocecal junction, size 4 x 3 x 2.5cm (Figure 3). Sheets of lymphoid cells with scanty cytoplasm, moderate pleomorphism, prominent nucleoli, Infiltrates submucosa, muscularis propria, and serosa, margins uninvolved (Figure 4) with Lymph node- 3/32 positivity (Figure 5). Immunohistochemistry suggested B- cell lymphoma with CD20 positivity and Bcl 2 focal positivity.

DISCUSSION

Non-Hodgkin's lymphoma (NHL) most commonly involve the GI tract. Gastrointestinal NHL represents between 1% and 4% of all gastrointestinal malignancies and 10% to 20% of small bowel. In order of decreasing frequency, stomach (60%), small bowel (30%), and colon are common sires. In small bowel, ileum is the most common site due to payer's patch aggregates, followed by the jejunum and duodenum. The most common lymphoma is diffuse large B-cell NHL.

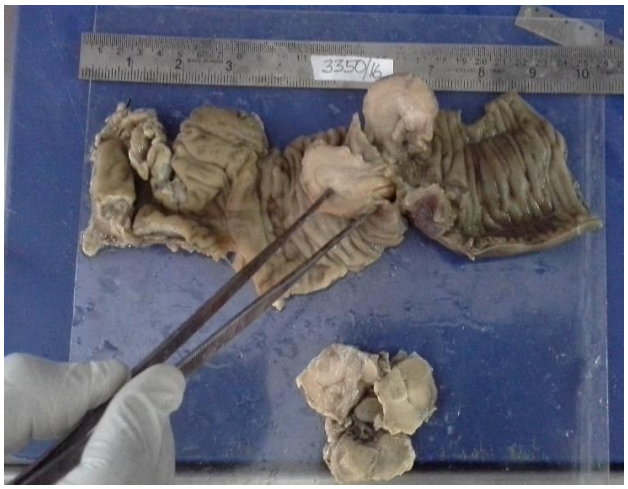

Figure 3: Gross morphology of resected specimen.

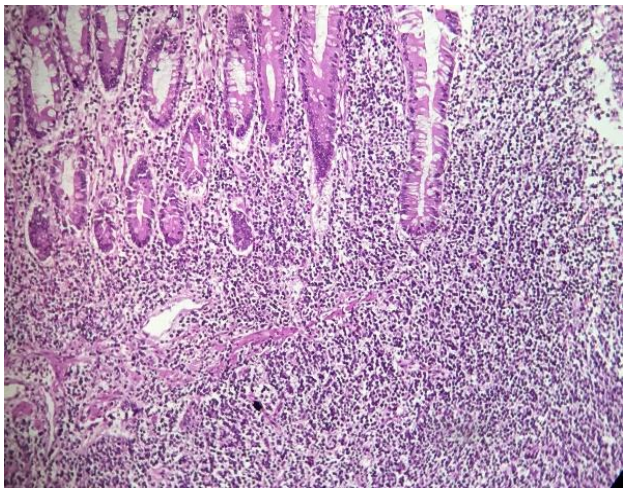

Figure 4: Histology of the tumor showing lymphocytic infiltration of all layers with pleomorphism and areas of necrosis.

Majority of patients present with non-specific abdominal complaints, Malabsorption, obstruction, or palpable mass. Rarely they perforate. While intussusception is a very rare presentation of NHL. Diagnostic criteria for primary GI NHL include

- absence of superficial adenopathy on physical examination,
- absence of mediastinal adenopathy by chest imaging,
- normal peripheral blood, cell counts, and
- absence of splenic or hepatic involvement.

At surgery, disease must be restricted to primary tumour with mesenteric lymph node involvement.[6]

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. Lymphomas of GIT generally fall into one of six categories: extra nodal marginal zone mucosa-associated lymphoma tissue (MALT lymphoma), follicular lymphoma, mantle cell lymphoma, diffuse large B-cell lymphoma and Burkett's lymphoma. Each subtype has origin from different functional cells and response to therapy widely differs. In general, MALT lymphomas have a better prognosis.[8]

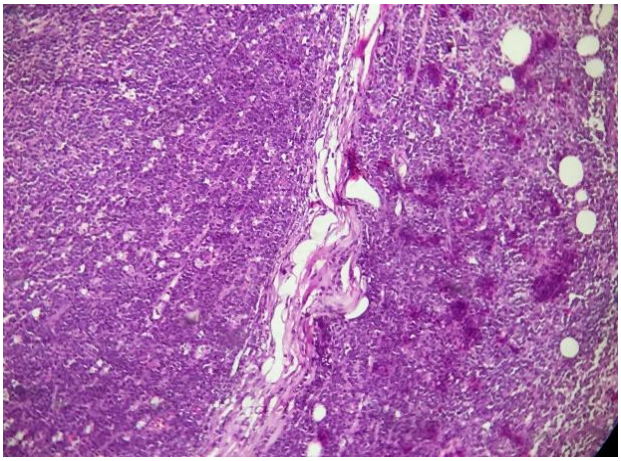

Figure 5: Histology of the lymph node involved showing extra nodal infiltration.

The most appropriate treatment option for primary gastrointestinal lymphomas is still controversial.[9-11] Some authors quote that surgical resection performed pertaining to oncological principles is sufficient while others emphasis the fact that addition of chemotherapy improves 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 >60years and ECOG performance status of ≥2. A tumour with aggressive course have high positivity rates of the Ki67 proliferation index. Most appropriate treatment for localized primary and low grade intestinal lymphomas without above poor prognostic factors is chemotherapy. In secondary gastrointestinal lymphomas, first line treatment is chemotherapy based on the primary disease and surgery is indicated based on the nature of presentation in GIT such as obstruction or perforation.

The preoperative diagnosis of adult intussusception is difficult because of nonspecific presentation and rarity of the condition. A correct diagnosis is possible by complete medical history and proper physical examination.[12,13] Ultrasound is a useful tool for the diagnosis of intussusception. 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.

Adult intussusception almost always requires surgery. The chronicity may not allow successful pneumatic or hydrostatic reduction due to cross-scarring between the intussussceptum and the intussuscipiens. And moreover, lead point may be missed.

CONCLUSION

We have presented this case due to rarity of intussusception caused by malignant lymphoma. Routine treatment of lymphoma after confirming with biopsy have been chemotherapy with the well-known CHOP regime with or without Rituximab. In our case, we have treated with surgery followed by chemotherapy CHOP regime with Rituximab. Role of surgeon in lymphoma is presently limited to biopsy, but there are situations like obstruction and perforation, where surgeon should take the lead role.

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