Eosinophilic Enterocolitis : Unuswal Case With Subacute Intestinal Obstruction

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Abstract :

Eosinophilic enteritis is a rare disease characterized by focal or diffuse eosinophilic infiltration involving any layer of bowel wall. It can affect any area of GI tract, although stomach & proximal small intestine are most frequently involved pats. It is import to recognize this disease to give necessary treatment at earliest to avoid its complications. Eosinophilic gastroenteritis occurs over wide range from infancy to seventh decade but most commonly present between second to fifth decades of life. Clinically varying abdominal symptoms related to location, severity & depth of invasion. We presented the case where child present with diffuse abdominal pain on and off with feature of sub-acute intentional obstruction due to thickening of distal ilium (I.C) Junction. Histological examination of resected specimen reveled characteristics features of eosinophilic enterocolitics. (Ileocolitis)

Keywords: Eosinophil, Eosinophilic enteritis , Eosinophilic entercolitis .

Introduction : Eosinophilic gastroenteritis initially charaterised by the triad of peripheral eosinophilia, eosinophilic infiltration of any segment of gastrointestinal tract & functional abnormality of GIT [1,2]. Kaijser who firstly described the entetiy Esoninophilic gastroenteritis in 1937[2,5]. Clinical picture varies from non specific GI complaints to more specific complaints depending upon which part of GI tract & thickness involved. We reprt a case 03 year old male child presented with subacute intestinal obstrcuction and wherein exploration revealed terminal ilium, IC junction thicknning with mesenteric lymphadenopathy leads to obstruction. Histopathology confirms the diagnosis of Eosinophilic enterocolitis.

Case Report : An 3 year old male child presented with right side abdominal pain on & off since six months. No H/O diarrhoea or loose motions. His medical history revealed no personal or family history of Gastro intestinal disorder or history of any allergies. No family history of tuberculosis. During last six months received treatment in the form of Antihelmenthics, Analgesics, antibiotics & hetrazan etc. Meanwhile temparary relief of symptoms for few weeks occurs.

After six months he was presented with severe abdominal pain since two days and occasional bouts of vomiting. On abdominal examination revealed tenderness in right hypochondriac region & around umbilicus. He had WBC count 21000 / cumm with eosinophils 25 %. His CRP & serum amylase level was within normal range.

Ultrasonography & computerized tomography (CT) scan showed, gross irregular wall thickening of terminal ilium & caecum with mild inflammation of appendix. Multiple enlarged right abdominal, mesenteric, paracaval (retroperitoneal) also noted. Imaging features are s/ o lymphoma. After one day admission bowel obstructive symptoms were aggrevated. Repeat CT scan revealed features of sub acute intestinal obstruction. Obstructive symtoms were not relieved with Ryle's Tube. So finally exploratory laperotomy done and resection of terminal ilium & caecum with ileotransverse anaestomosis done. Grossly specimen of ileocaecal resection show marked irregular ileocaecal thickening, stricture with ileocaecal mass and multiple lymph nodes over intestional wall & mesentery. C/S show irregular thickening of terminal ilium with caecum Fig-1.

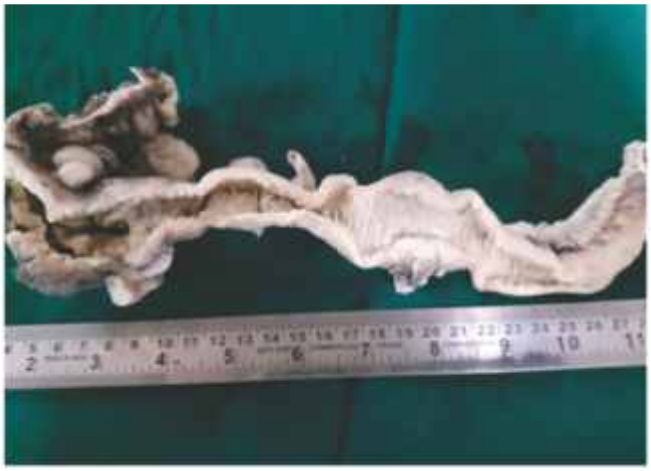

Fig 1: Gross resected specimen terminal ileum with caecum shows thickness illeocaecal junction with narrow lumen along with few mesentery lymphnodes.

Multiple sections from thickened part of bowel & lymph nodes studied. Histological there is diffuse eosinophilic infiltration of mucosa, submucosa & deep muscle coat also. Almost all sections eosinophils are > 100 / HPF are noted. Lymph nodes also reveled reactive changes with diffuse and dense eosinophilic infiltration.

Other D/D like Crohn's Disease, parasitic infestation, Collagene vascular disease & lymphoma were ruled out histologically. So final diagnosis was made as Eosinophilic enterocolitis. (Fig. 2,3). After surgery patient kept on low dose corticosteroid therapy with good clinical response.

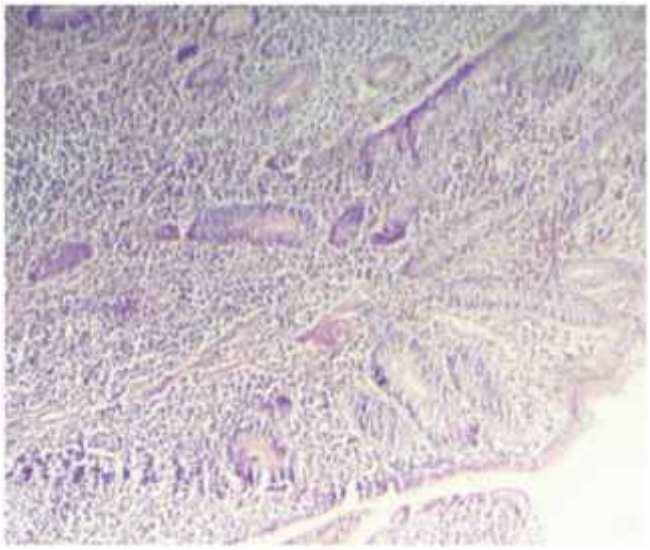

Fig 2: Microphotographs shows diffuse and dense eosiniophilc infiltration in mucosa and submucosa (10X)

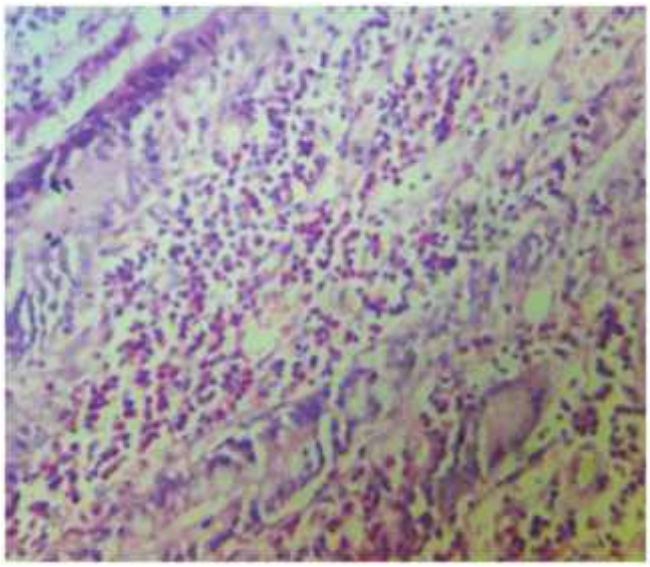

Plate 3: High magnification (40X) show few mucous glands along with dense eosinophilc infiltration in lamina propria

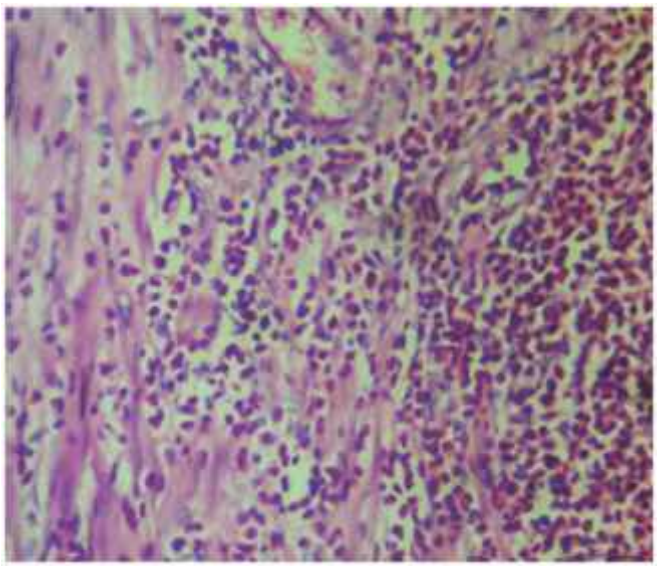

Fig 4: Higher magnification 40x shows eosinophicl infiltration in muscle layer.

Discussion : Eosinophilic enteritis is a rare poorly understood condition presenting of unknown iteology with bizarre spectrum of unexplained symptoms mimicking any other acute abdominal condition [3]. Kaijser who firstly describe the entity eosinophilic gastroenteritis in 1937[2-5].

It can affect both sexes althrogh it seems to more common in men. This usually presents from 3rd to 5th decade and is almost rare in children[5]. Our case is 3 year male child. Eosinophilic enteritis usually involves stomach and proximal bowel. It is rarely found in distal bowel & Colon[3]. Eosinophilic enteritis may be primary or secondary in nature. Primary eosinophilc G.I disorder are defined as disorders affect G.I. tract with eosinophil rich inflammatory infiltration, in absence of known cause of eosinophilia (e.g drug reactions, parasitic infestations, collagen disease, Inflammatory Bowel Disease and lymphoma)[6].

These eosinophilic infiltration into the inflammatory tissue is quiet complex process regulated by IL-3, ILF and Granulocyte Macrophage Colony Stimulating Factor (GM-CSF) [2,4,7]. The clinical manifestation of eosinophilic gastroenteritis ranges from non specific GI complaint to more specific complaints depending upon which part of GI tract involve such as feature of esophagitis, gastritis, enteritis or colitis [2,3,6,7,8].

The clinical presentation of Eosinophilic Gastroenteritis depends of upon site and depth involvement of GI thickness. The mucosal form is the most common form and presents with vomiting, diarrhoea, abdominal pain, anemia, weight loss and protein loosing enteropathy, Malabsorption.

Involvement of muscle layer leads to the thickening of bowel wall, resulting in obstructive symptoms. Serosal involment occurs in minority of patients and characterized by painful peritonitis and ascetic. [2,3,6,7,8]

Our case there was obstructive symptoms with severe abdominal pain. The role of imaging in Eosinophilic gastroenteritis is very limited because of radiological findings are non specific .Ultrasound and CT scan (computerized tomography) usually show thickening of G.I. wall which may mimic other conditions like Crohn's Disease, Tuberculosis or lymphoma. Despite all the clinic features definitive diagnosis can only be made based on presence of increased Eosinophis in biopsy specimen of G.I. tract and exclusion of other all causes of eosinophilia [3,6].

The differential diagnosis of EGE includes variety of disorders like Crohn's Disease. Parasitic infestations, Polyarteritis nodula, Idiopathic hypereosinophilic syndrome and lymphoma should be ruled out.

There is no standard treatment in eosinophilia GI but steroids and anti allergy T/t often advocated. Immunosuppressive therapy with Azahioprine can be as an adjuvant to steroids. If an acute exacerbation steroids unable to control, then Na chromoglycate may be employed. If disease is localized and with obstructive symptoms surgery also need to considered.

Conclusion : Eosinophilic enteritis is a diagnostic dilemma & the clinical presentation and investigations are only contributory. Surgeon must be aware of this rare condition cause of acute abdomen and rarely may be presented as intestinal obstruction.

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