Case Report:
Primary Eosinophilic Obliterative Appendicitis

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Abstract: Primary eosinophilic appendicitis is a rare condition of unknown etiology having vague and unexplained symptoms. Histopathological hallmark of this entity is eosinophilic infiltration of the muscularis propria with accompanying edema separating the muscle fibers, and absence of neutrophilic infiltration. Preoperative correct diagnosis of this entity is not possible in view of lack of specific imaging technology. Histopathological examination is the gold standard for the diagnosis. Here, we present an unusual case of Eosinophilic Obliterative appendicitis in a 25 years old male patient.

Key Words: Eosinophilic appendicitis; Obstruction; Appendix; Eosinophils

Introduction:
Eosinophilic enteritis (EE) is an extremely rare disease, involving the entire gastrointestinal tract (GIT), although stomach and duodenum are frequently involved sites. The pathogenesis and etiology of eosinophilic enteritis remains unclear.1 Appendix is rarely involved by this entity. Acute appendicitis is one of the most common surgical disease worldwide. It is primarily diagnosed on the basis of history and the physical examination with additional assistance from laboratory and radiographic findings.2 Currently the most accepted explanation for the development of acute appendicitis is obstruction and secondary infection.3 The obstruction is thought to be due to extra luminal adhesions or luminal causes such as faecoliths or lymphoid hyperplasia in the walls3 or rarely as a result of the infective process. Primary obliterative appendicitis due to eosinophils in the absence of faecoliths or lymphoid hyperplasia is a rare clinical entity. Herein, we report a case of primary eosinophilic obliterative appendicitis, which is an extremely uncommon clinical entity.

Case Report:
A twenty five years old male presented with chief complaints of recurrent pain in right iliac fossa just below the umbilicus. It was not associated with fever, vomiting or diarrhoea. There was no family history of allergy or atopy and no history of drug allergy, asthma or allergic rhinitis. Local examination revealed mild to moderate tenderness in right iliac fossa. Rest of systemic examination was not contributory. Routine hematological examination showed hemoglobin 12g/dl, total leucocyte count 13000/cmm and differential count of neutrophils 80%, lymphocytes 13%, and eosinophils 3%. Other biochemical and serological examination were unremarkable.

The patient was clinically diagnosed as appendicitis and open appendicectomy was performed under general anesthesia and resected specimen was sent for histopathological examination. Post-operative period was uneventful and patient was fine on regular follow up.

Light microscopy: Multiple section studied shows appendix. Mucosa showed extensive areas of ulcerative and denuded epithelium (Fig. 1). Submucosa showed necrotic areas, congestion and oedema. All the layers including muscular propria showed dense and diffuse infiltration by eosinophils that was >25-50/hpf (Fig. 2). All the layers showed congestion and serosa showed fibrosed walls with dense, diffuse eosinophilic infiltration. Final histopathological diagnosis was given as Primary eosinophilic obliterative appendicitis.
Primary eosinophilic obliterative appendicitis is a rare clinical entity with unexplained symptoms. Surgeons should think of this condition in differential diagnosis of abdominal pain. Histopathology is the gold standard for diagnosis of this rare condition.

**References:**