Eosinophilic Ascites: Rare Presentations of Eosinophilic Gastroenteritis (EGE)

He Qiu MD [1], Ozlem Fidan-Ozbekin MD [2], Steven Krawitz MD [3]
[1] Division of Gastroenterology and Hepatology, Department of Medicine, Rutgers New Jersey Medical School, Newark, NJ; [2] Department of Pathology, [3] Division of Gastroenterology, Department of Medicine, VA New Jersey Health Care System, East Orange, NJ

Case Presentation
A 33-year-old male with schizophrenia and suspected familial adenomatous polyposis (FAP) was admitted with 2 days of nausea, vomiting, and diarrhea associated with 10 lbs. weight loss over the past 2 weeks. Exam was notable for abdominal distension with shifting dullness and diffused tenderness. Initial labs showed normal electrolytes and liver chemistries, WBC 13.8x10^3/µL (4.3-10x10^3/µL) with eosinophil predominance (60%, 8.29X10^3/µL (0.04-0.54X10^3/µL), CRP 17.43mg/L (0-3mg/L), and creatinine 1.5mg/dL (0.7-1.3mg/dL). Stool studies were negative for bacterial, ova, and parasitic infection. Further blood work showed normal IgE, fecal calprotectin, and strongyloides IgG. Flow cytometry did not reveal any myelolymphoproliferative findings. Abdominal ultrasound showed hepatosplenomegaly with large ascites. He underwent paracentesis revealed WBC 12,154 with 97% eosinophil count and negative gram stain and AFB culture. He underwent push enteroscopy which showed esophagitis, duodenitis and normal jejunum, and flexible sigmoidoscopy which showed distal colonic edema with patchy erythematous mucosa (Figure 1). Random biopsies were obtained from different parts of the gastrointestinal tract revealed increased eosinophils (up to 50 eosinophils/HPF) in duodenum consistent with eosinophilic gastroenteritis (EGE) (Figure 2).

Discussion
EGE is a rare disorder characterized by eosinophilic infiltration of the gastrointestinal tract in the absence of other causes of intestinal eosinophilia. Clinical presentations of EGE are related to the layers and the extent of the bowel involved. While eosinophilic infiltration on endoscopic biopsy suggest predominantly mucosal disease, patient with subserosal involvement typically presents with eosinophilic ascites. Our patient has evidence of both mucosal and subserosal involvement which eventually response to steroid therapy.

Conclusion
Eosinophilic gastroenteritis should be suspected in patient presenting with gastrointestinal symptoms associated with eosinophilic ascites and peripheral eosinophilia. Endoscopic evaluation should be pursued to confirm the diagnosis.
Abstract 124

Figure 1. A) esophagitis, B) duodenitis, C & D) distal colonic edema with patchy erythematous mucosa

Figure 2. Eosinophilic infiltration (arrow) in mucosal layer of duodenum
Abstract 124

References:
