A Case of Progressive Untreated Eosinophilic Gastrointestinal Disorder complicated by Eosinophilic Myocarditis

M Reddy, MD[1], M Lacayo, MD[2], M Castillo[2], MD, M Kothari, MD[2]
[1]Department of Internal Medicine, New York-Presbyterian Brooklyn Methodist Hospital, Brooklyn, NY
[2]Division of Gastroenterology and Hepatology, New York-Presbyterian Brooklyn Methodist Hospital, Brooklyn, NY

Discussion

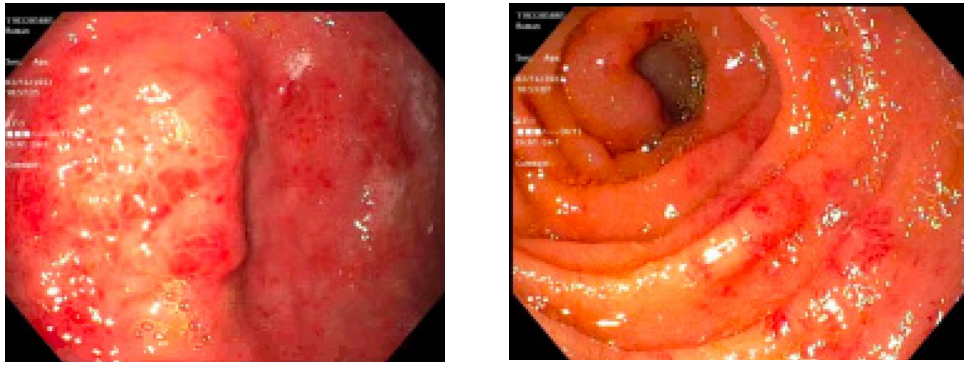
- Eosinophilic gastrointestinal diseases (EGID) are immune-mediated conditions characterized by GI dysfunction and histological evidence of eosinophilic infiltration.
- While usually confined to the GI tract, severe inflammation can involve multiple organ systems, typically under the umbrella term of hypereosinophilic syndrome (HES).
- Once systemic involvement has occurred, clinical manifestations are often non-specific and can be easily mistaken for alternative pathologies. Delay in diagnosis can lead to widespread tissue infiltration and organ dysfunction.

Case Presentation

63 year old female with a known history of eosinophilic esophagitis and breast cancer post mastectomy who presented with complaints of acute epigastric and chest pain. Labs were remarkable for peripheral eosinophilia peaking at 57%. Initial high sensitivity troponin I was 300 ng/L without EKG changes, and ultimately peaked at 7821 ng/L.

Left heart catheterization revealed LAD without obstructive disease. EGD demonstrated severe inflammation, erythema, and eosinophilic infiltration in the gastric body, antrum, and throughout the duodenum. High dose steroids were initiated with subsequent improvement in symptoms, serum troponin, and complete resolution of peripheral eosinophilia.

After resolution of symptoms, outpatient cardiac MRI confirmed eosinophilic myocarditis, and she was started on Mepolizumab for maintenance therapy and prevention of relapse.



Inflammation of the gastric body [left] and 3rd portion of the duodenum [right]

Conclusions

Eosinophilic esophagitis is a rising cause of esophageal dysfunction in patients that were previously misdiagnosed with GERD. While often localized, eosinophilia can involve multiple organ systems and promote damage by fibrosis and thrombosis.

Initial diagnosis should involve evaluation of absolute eosinophil count, inflammatory markers, and other etiologies for peripheral eosinophilia (i.e. HIV, leukemia, ADA-SCID). Imaging studies may indicate underlying muscular disease, but ultimately full-thickness biopsies may be required to establish diagnosis.

While glucocorticoid suppression can treat acute eosinophilia, the majority of these patients have chronic disease that require long term maintenance therapy. Mepolizumab has been demonstrated to be an effective agent for hypereosinophilic disorders.

Contact Information

Megha Reddy, MD
Department of Medicine, New York-Presbyterian Brooklyn Methodsit Hospital
Email: mer9153@nyp.org