Eosinophilic Enterocolitis Associated With Silicone Breast Implant Rupture

Shany Quevedo MD[2], Arash Zarrin, DO[1], Steven Kaplan, MD[1]
Gastroenterology, HCA Florida Aventura Hospital [1]
Internal Medicine, HCA Florida Aventura Hospital [2]

Introduction

Hypereosinophilic Syndrome (HES) is a disorder characterized by an accumulation of eosinophils within peripheral tissue or blood, with varying manifestations dependent on organ involvement. Eosinophilic gastrointestinal disorders (EGIDs) is one manifestation. In our case, we believe that antigenic leakage from ruptured silicone breast implants was the proximate cause.

Case Summary

Our patient is a 59 year-old female with a history of asthma who presented with new-onset sharp epigastric pain worsened with oral intake and associated with diarrhea. Recent evaluation of another hospital for leg weakness revealed peripheral eosinophilia. Electromyography (EMG) showed chronic inflammatory demyelinating neuropathy. She had a full workup at that time and by exclusion was diagnosed with HES. She was subsequently treated with low dose steroids, IVIG and plasmapheresis without clinical improvement. At our hospital, labs revealed leukocytosis of 35,000/μL, eosinophilia of 21,960/mm3 and IgE of 1299 IU/mL. An HES work-up was repeated excluding other causes. A CT scan revealed wall thickening of the descending colon, and intracapsular rupture of the right breast implant. Enteroscopy demonstrated erosions and ulcerations of the duodenum and jejunum. Colonoscopy showed focal ulcerations with surrounding inflammation separated by normal mucosa. Histology demonstrated eosinophilic infiltration throughout the colonic mucosa. Video capsule endoscopy demonstrated diffuse inflammation and ulceration of the entire small bowel. Empiric treatment for strongyloides was completed before initiating high dose prednisone therapy. A month later, her breast implants were removed elsewhere. Shortly after, she was successfully tapered off of steroids with complete resolution of both her GI symptoms and lower extremity weakness, as well as normalization of lab work.

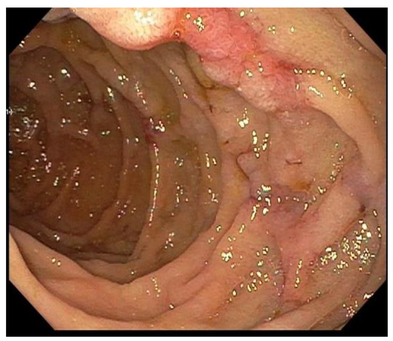

Image 1A

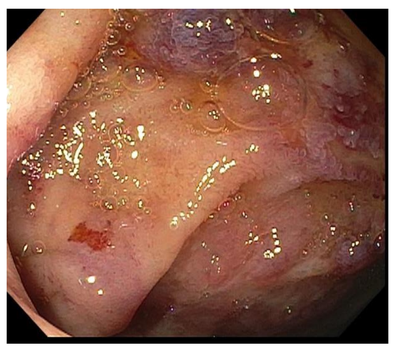

Image 1B

Images 1A and 1B: Second portion of duodenum showing inflammation and erosions

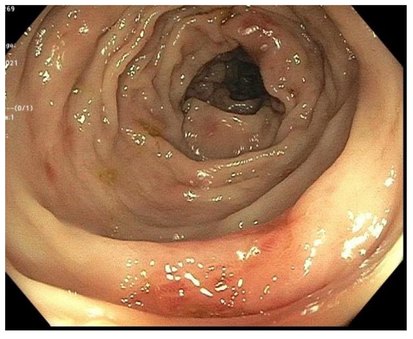

Image 2A

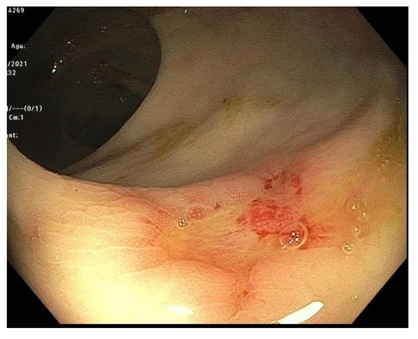

Image 2B

Images 2A and 2B: Scattered areas of colonic inflammation

Discussion

EGIDs are multifactorial with a strong emphasis on immunologic factors. Eosinophilic infiltration seen on biopsies and exclusion of secondary causes of infiltration are required. Treatment is aimed at symptom management and removal of offending agents. Our patient experienced complete clinical resolution after the removal of her silicone breast implants. Our case highlights a rare case of eosinophilic enterocolitis associated with a ruptured breast implant in an otherwise healthy patient. This highlights the importance of remaining vigilant of all external factors that may be contributing to the pathologic process.

Conclusion

Our patient is a 59-year-old F with only a history of asthma who presented with nonspecific epigastric pain and diarrhea. Enteroscopy done to evaluate cause of symptoms revealed erosions and ulcerations of duodenum and jejunum, while colonoscopy revealed focal areas of ulceration with surrounding inflammation. Without high degree of suspicion, it eosinophila could be overlooked n the setting of asthma and not tied together with the findings seen on scoping. It is imperative that one remain vigilant and keep differentials broad when evaluation patient with eosinophilia.

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