Eosinophilic colitis: A case report

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Abstract

A 26-year-old presented with 2 years history of recurrent diarrhea, he had a colonoscopy with multiple biopsies taken which showed evidence of eosinophilic infiltration of the lamina propria. She was treated with steroids and dietary modification. She had a resolution of her symptoms.

Introduction

This is a rare clinical condition in which eosinophils cause inflammatory changes to the colon. It is a form of primary eosinophilic disorder of the gastrointestinal tract that affects both young adults and infants but has also been reported in patients in their 60s.[1]

The disease entity was first described in1936 and since then has been a subject of several case reports. Among the eosinophilic gastrointestinal disorders which include eosinophilic gastroenteritis and esophagitis, Eosinophilic colitis is the rarest while esophagitis is increasingly being recognized as an important entity affecting 1% of the general population.[2]

The exact etiology and pathophysiology of eosinophilic colitis are not well known however it's suggested there may be a relationship to food allergies. This has been demonstrated by the response to dietary modification.[3] In this case report, we present a 26-year-old presenting with loose watery stool for 2 years.

Case Report

A 26-year-old female patient presented to us with a history of loose stool for the past 2 years, occasionally associated with specific meals. She had no other alarm signs but was referred for colonoscopy to evaluate grade 2 hemorrhoids and diarrhea.

She was prescribed antibiotics at different times while she had symptoms. Her colonoscopy was essentially unremarkable except for few areas of hyperemia in the caecum and sigmoid colon. She had multiple biopsies taken from the colon for histology which showed moderate

infiltration of the lamina propria by chronic inflammatory cells mainly eosinophils, lymphocytes, and plasma cells. Their eosinophil cells were 25per HPF in the biopsy specimens. She also had no peripheral eosinophilia.

She was started on steroids and responded with no episodes of diarrhea since commencing steroid therapy.

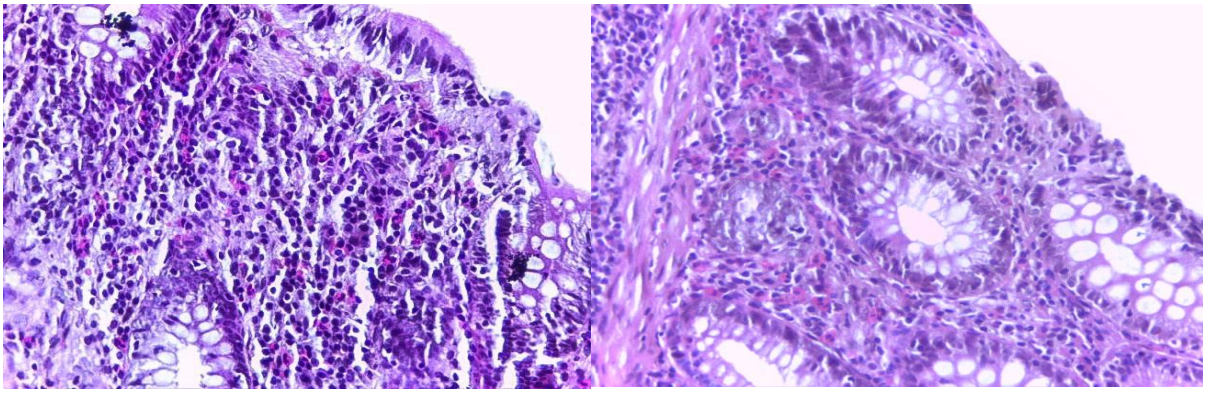

Figure 1a and b. Figure 1. The figures show an HPF (x400) of H&E stained photomicrograph of colonic mucosal tissue with multiple eosinophils in the lamina propria

Discussion

Eosinophilic colitis has been described as a very rare entity without consensus diagnostic criteria. In the past ten years, the number of case reports has progressively increased in the literature which is a testament to growing understanding and awareness about this disease entity. A high index of suspicion is required to make a diagnosis of this disease entity. In the case of our patient, she has had repeated doses of antibiotics and anthelmintic and repeated stool microscopy and culture carried at every visit to the hospital. It was assumed she had an infectious cause for her diarrhea. This underscores the importance of proper evaluation and appropriate investigation and interpretation of clinical data available. Moreover, colonoscopy should be offered to people presenting with chronic diarrhea and colonoscopist should also have a high index of suspicion as it was the case in our patient. Despite very minimal mucosal changes multiple biopsies were taken and sent for pathologic analysis.

The exact cause etiology of EC is also not clearly known authorities believe it is related to an allergic reaction to an allergen that may be either from food, drugs, or

environmental triggers.[4] A recent case report demonstrated the presence of mast cells in the colonic interstitium of patients who were found to have EC, in another separate case report, the precipitant was ingestion of seafood. In our case, the patient reports that diarrhea is made by certain foods type which she avoids with improvement in her symptoms.

There are many mimics of EC and therefore, before a diagnosis of EC is made potential causes of eosinophilic will have to be excluded. Drugs are known to be causes of eosinophilia in the colon, drugs such as Non-steroidal anti-inflammatory drugs rifampicin and carbimazole have all been implicated but our patient did not use the above medication.[5] Colonic eosinophilia has also been associated with parasitic infestations such as pinworms and whipworms.[6] In these tropical regions where parasites are prevalent pathologists should be aware when considering the histologic segments. In this index case, the pathologist report was explicit about the absence of parasites in the colonic tissue under evaluation.

Our patient is a 26-year-old lady, she falls in one of the characteristic age groups of the bimodal distribution of the EC. The age at presentation has prognostic significance with patients who present in infancy having a better prognosis when compared to others who are presenting as adults. the clinical symptoms at presentation are also determined by which part of the colonic tissue is infiltrated by the eosinophils. Patients who present with diarrhea tend to have mucosal involvement while those who present with signs of intestinal obstruction and some form of motility disorder have transmural eosinophilic infiltration. While ascites can be the presentation when the serous layer is involved.

When other causes of eosinophilia are excluded, a diagnosis of eosinophilic colitis can be made in the presence of eosinophilia in blood tests, in the colonic tissue, and consistent symptoms. Our patient did not have peripheral eosinophilia but she had characteristic symptoms and eosinophils in the colonic tissue at histology. It is known that about 20% of patients with EC may not have peripheral blood eosinophils while 60-80 % will have blood eosinophils.[7]

Our patient is currently on steroids and she has had a good response to the medication; she is also combining dietary modifications

also to maintain symptom-free episodes. These are two well-known treatment modalities that have been employed in the management of patients with EC. Especially in cases of childhood EC where withdrawal of the allergen is associated with a resolution of the symptoms of the patient. Whereas steroid therapy is for an initial prolonged period of up to 8 weeks in adults and then tapper the steroid down.[4] Other possible medications that can be used are Budesonide, Sodium cromoglycate, and leukotriene antagonist.

Conclusion

This rare clinical entity is a possible cause of diarrhea in our environment and a high index of suspicion is required to clinch the diagnosis and initiate treatment.

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