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Eosinophilic Gastroenteritis

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Abstract: ***Eosinophilic gastroenteritis (EGE) is a digestive disorder in children and adults that is characterized by eosinophilic infiltration in the stomach and intestine. The underlying molecular mechanisms predisposing to this disease are unknown, but it seems that hypersensitivity response plays a major role in its pathogenesis, as many patients have a history of seasonal allergies, food sensitivities, asthma, and eczema. Symptoms and clinical presentations vary, depending on the site and layer of the gastrointestinal wall infiltrated by eosinophils. Laboratory results, radiological findings, and endoscopy can provide important diagnostic evidence for EGE; however, the cornerstone of the diagnosis remains the histological examination of gastric and duodenal specimens for evidence of eosinophilic infiltration (>20 eosinophils per high-power field), and finally clinicians make the diagnosis in correlation with and by exclusion of other disorders associated with eosinophilic infiltration. Although spontaneous remission is reported in around 30%-40% of EGE cases, most patients require ongoing treatment. The management options for this disorder include both dietary and pharmacological approaches, with corticosteroids being the mainstay of therapy and highly effective.***

Keywords: Eosinophilic gastroenteritis, LDH, eosinophilia, s.igE

1. Introduction

Eosinophilic gastroenteritis (EGE) is a rare condition of unknown aetiology characterized by vomiting, diarrhoea, protein-loosing enteropathy and eosinophilic infiltration of the gut wall. The disease is uncommon, but the incidence is difficult to be estimated because some patients may be misdiagnosed.

On Examination

The patient was afebrile and hemodynamically stable. The physical examination was unremarkable, EXCEPT FOR THE ASCITES

2. Case History

A previously healthy 37-years-old woman presented to the emergency department with generalized abdominal pain, nausea, sporadic non-projectile vomiting, abdominal distention and occasional diarrhoea, during the preceding two weeks. She did not report any recent fevers, chills, change in bowel habits, respiratory symptoms, joint swelling or skin rash. She reported no history of alcohol consumption, illicit drugs and was not taking neither medications, nor supplements or herbal compounds. There was no history of atopy, allergy, transfusion, recent travel, liver or heart disease

3. Investigations

CBC: WBC 13, 000/cumm with segment nuclear neutrophils 39%, lymphocytes 20%, eosinophils 38% and monocytes 3%. CRP, serum liver tests and electrolytes were normal.

Serum IgE level was elevated at 838.4 IU/mL (normal <150).
Skin prick test results for foods allergens were negative. Parasitic infestations and Gynecologic pathologies were excluded.

Diagnostic paracentesis revealed a clear fluid with protein level 4.1 g/dL, albumin 3.4 g/dL, LDH 266 mg/dL and WBC count of 8, 800/mL with remarkable eosinophlia of 94%, without cytological sings of malignancy. Ascitic fluid for bacterial culture and tuberculosis were negative.

MRI showed moderate ascites and diffuse thickening of small bowel wall, but normal appearance of the liver and portal circulation and no malignancy.

Upper GIscopy showed hyperemia of the esophagus and antral mucosa. Histological examination of the duodenal mucosa showed no eosinophilic infiltrate

4. Diagnosis

There is no single diagnostic test or procedure. In the present case the definitive diagnosis was made based on imaging, laboratory results, clinical findings (Absence of malignancy, presence of ascitic fluid eosinophilia) and good response following treatment with steroids.

5. Treatment

Treatment included ELIMINATION OF ELEMENTAL DIETS and drug therapy using classical anti-allergic agents. STEROIDS were mainstay of therapy giving dramatic results. Low-dose maintenance Prednisone was prescribed to keep symptoms under control. Steroid-sparing therapy, such as cell inhibitors, antihistamines, leukotriene receptor antagonists, anti-interleukin or immunosuppressant may be

considered.

6. Discussion

EGE is a rare diagnosed condition that is characterized by recurrent prominent eosinophilic infiltration of the small intestine, generally localized to one level of the intestinal wall, presented with nonspecific gastrointestinal symptoms, in association with peripheral eosinophilia, typically presents in the third through fifth decades and is more common in the female population. There is a strong association with atopy; around 80% of the patients reporting a personal history of asthma, eczema, allergic rhinitis or allergy. The differential diagnosis include parasitic infestations, spontaneous bacterial peritonitis, abdominal tuberculosis, rupture of hydatid cyst, peritoneal dialysis, chronic pancreatitis, vasculitis, hypereosinophilic syndrome, malignancy and Crohn's disease.

7. Conclusion

Thus, we had encountered a case of gastroenteritis with ascites having peripheral and peritoneal fluid eosinophillia with no parasitic infestation, malignancy, vasculitis diagnosed as EOSINOPHILLIC GASTROENTERITIS, responded dramatically to steroids.

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