Case Report

Eosinophilic Gastroenteritis: A Rare Case Report

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Abstract

Eosinophilic gastroenteritis (EGE) is a rare disease characterized by eosinophilic infiltration and peripheral eosinophilia. It can be seen anywhere in the gastrointestinal tract. It is diagnosed in the biopsies taken during endoscopic examination to the patients with abdominal pain and chronic diarrhea. A 40-year-old woman was admitted with abdominal pain and chronic diarrhea. She has not any disease, food, pollen, or drug allergy in her medical history. Leukocyte: 19,400/mm3 (neutrophil: 19.9%, eosinophil: 57.4%, lymphocyte: 16.5%), platelet: 281,000/mm^3, immunoglobulin E: 1721 IU/mL (normal range: 20–100 IU/mL) was counted in her blood examination. The duodenal biopsy was reported as EGE. We applied methylprednisolone 20 mg/day. With this treatment, the patient's symptoms regressed. In this article we present a case of chronic diarrhea diagnosed EGE. The first step in diagnosing is suspecting EGE. It should be borne in mind in patients with chronic diarrhea.

Keywords: Chronic diarrhea, Endoscopic examination, Eosinophilic gastroenteritis

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Introduction

Eosinophilic gastroenteritis (EGE) is a rare disease characterized by eosinophilic infiltration and peripheral eosinophilia. It can be seen anywhere in the gastrointestinal tract.[1] The pathogenesis is not fully understood but hypersensitivity is a major factor.[2] Three different forms are defined: mucosal involvement, muscle involvement, and serosal involvement.[3] The first identification of EGE was made by Kaijser *et al*. in 1937.[3] It is diagnosed in the biopsies taken during endoscopic examination to the patients with abdominal pain and chronic diarrhea.[1,2,4] The number of diagnosed cases is increasing with the increase in endoscopic procedures.[4]

In this article we want to present a case of chronic diarrhea, which led to the diagnosis of EGE.

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Case Report

A 40-year-old woman was admitted with the complaints of abdominal pain and chronic diarrhea. She has diarrhea for 1 year. There was no fever, weight loss, or rash. She has no disease, food, pollen, or drug allergy in her medical history. There was no remarkable feature in her physical examination. Sedimentation: 23 mm/h, hematocrit: 35.5%, leukocyte: 19,400/mm^3 (neutrophil: 19.9%, eosinophil: 57.4%, lymphocyte: 16.5%), platelet: 281,000/mm^3, immunoglobulin E (IgE): 1721 IU/mL (normal range: 20–100 IU/mL) was counted in her blood examination. Liver and renal functions were in normal range. Parasitologic examination and bacterial culture of stool were normal. There was no remarkable feature in her abdominal ultrasonography and posterior–anterior lung radiography. Endoscopic examination was performed and multiple duodenal biopsies were taken. The duodenal biopsy was reported as EGE [Figures 1 and 2]. We applied methylprednisolone 20 mg/ day. With this treatment, the patient's symptoms regressed.

Discussion

EGE is a rare disease characterized by eosinophilic infiltration and peripheral eosinophilia. It is difficult

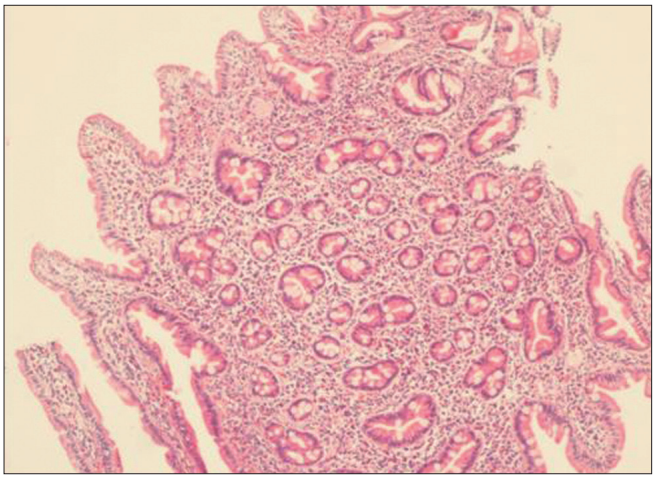

Figure 1: Microscopic appearance of duodenal biopsy (Hematoxylin and Eosin, ×100): common eosinophilic infiltrations in the duodenal mucosa

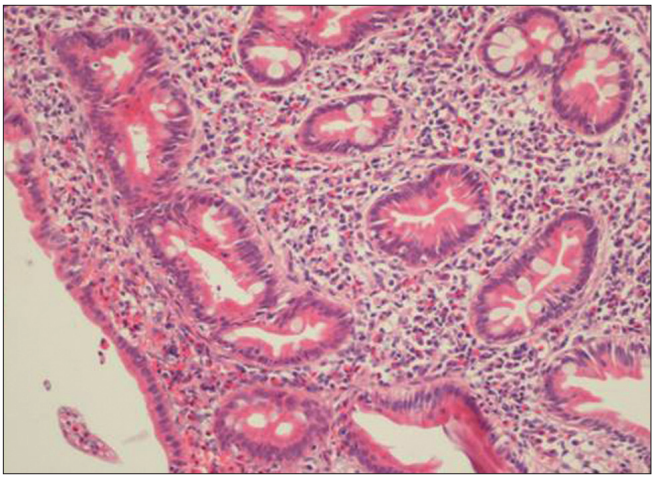

Figure 2: Microscopic appearance of duodenal biopsy (Hematoxylin and Eosin, ×200): common eosinophilic infiltrations in the duodenal mucosa

to diagnose because of nonspecific symptoms. Gastric or duodenal biopsies are required for confirming diagnosis. The macroscopic appearance is nonspecific. More than 20 eosinophils were determined in each magnification field histologically.[3,4] Reasons (parasites, drug use, malignancy) leading to eosinophilia must be excluded. EGE can be seen anywhere in the gastrointestinal tract.[1,5]

Because of nonspecific symptoms, the first step in diagnosing is suspecting EGE. Peripheral eosinophilia is seen in two-thirds of patients.[6] Eosinophilic infiltrations in the biopsy anywhere in the gastrointestinal tract is diagnostic if the other reasons (parasites, drug use, malignancy) are excluded. Because of diffuse involvement, multiple biopsy should be taken from different places.[1,2,4,7] High serum level of IgE is common in these patients. Eczema, atopic diseases, such as asthma, may be accompanied. EGE affects both sexes and all age groups but most of the cases are older than 30 years. It is difficult to determine the actual frequency or prevalence of EGE. Number of diagnosed cases is increasing with the increase in endoscopic procedures but the actual frequency of EGE is not known.[8]

There is no consensus about the treatment of EGE. There are not enough studies on this. The treatment should be individualized according to the patient's age and the severity of the symptoms. The steroids are the main drug in the treatment. Antihistamines (ketotifen), mast cell stabilizer (oral chromoglycate), and leukotriene antagonists (montelukast) are other drugs that can be used in the treatment of EGE.[1,8,9]

The first step in diagnosing is suspecting EGE. It should be borne in mind in patients with chronic diarrhea.

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