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CASE REPORT

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Profuse Upper GI Bleeding Secondary to Eosinophilic Esophagitis

Emrah Aydin,[1]* Ömer Faruk Beşer[2]

1 Department of Pediatric Surgery, Bahcelievler State Hospital, Turkey

2 Department of Pediatric Gastroenterology, Okmeydani Education & Training Hospital, Istanbul, Turkey

ABSTRACT

Eosinophilic esophagitis is a chronic disease with immunoallergic etiology. In this condition infiltration of the esophagus with eosinophils, results in esophageal dysfunction. A sixteen years old girl was admitted to the emergency department with profuse hematemesis. Patient needed multiple blood transfusions. Endoscopy ruled out surgical causes of upper GI bleed and esophageal punch biopsy revealed eosinophilic esophagitis. Patient responded well to anti-allergic treatment.

Key words: Eosinophilic esophagitis; Gastrointestinal (GI) hemorrhage; Children

Correspondence*: Emrah AYDIN, Department of Pediatric Surgery, Bahcelievler State Hospital, Turkey

E-mail: dremrahaydin@yahoo.com

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INTRODUCTION

Eosinophilic esophagitis (EoE) is one of commonest causes of chronic and recurrent esophagitis. It rarely presents with profuse GI bleeding. At the time of diagnosis patients can have myriad of lesions like edema, exudate, furrows, and stricture of the esophagus.[1,2] Herein, we report an adolescent girl who presented with profuse upper GI bleeding.

CASE REPORT

A 16-year-old girl presented to the emergency department with hematemesis. This was the first episode. On examination her heart rate was 145/minute and blood pressure 110/70 mmHg. Laboratory investigations showed hemoglobin of 9g/dL, hematocrit 27.1%, platelets 340000 mm3. Clotting profile was normal. On nasogastric intubation, bright red fresh blood was noted. She was transfused with 7 units of packed cells and 5 units of fresh frozen plasma in first 48 hours. Proton pump inhibitors, antacids, antibiotics, etc. were added to the treatment. There was no portal hypertension on Doppler ultrasonography and CT splenoportography. She had minimal gastroesophageal reflux on upper GI contrast imaging. An upper GI endoscopy showed aphthous lesions at stomach and duodenum; esophagus was also erythematous (Fig.1). Multiple biopsies were taken at endoscopy. These were reported as eosinophilic esophagitis and chronic gastritis. Eosinophil values of the specimen were between 17-23/HPF at esophagus while 0-10/HPF at the stomach. She was followed up with a combination of proton pump inhibitor, antacid, antihistamines and a diet with avoidance of food allergens such as egg and milk. One month later, follow-up upper GI endoscopy showed healed aphthous lesions and complete recovery of esophagitis. After a month she was again admitted to the emergency department with melena. Repeat endoscopy showed mild esophageal hyperemia. History revealed poor drug therapy compliance. She was

counseled and antihistamine therapy was reinstituted. At 6-month follow-up endoscopy was performed and esophageal biopsy showed reduction in eosinophil value (5-10/HPF). At the end of the first-year follow-up, antacid and antihistaminic treatment was stopped. She is asymptomatic at 2-year follow-up.

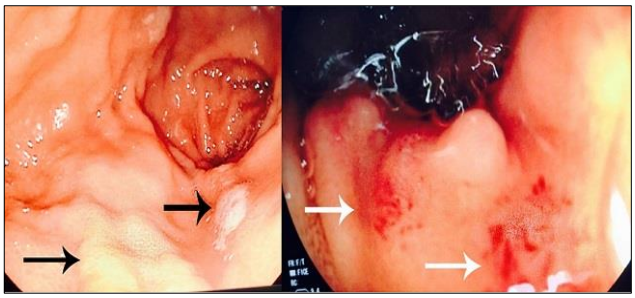

Figure 1: Aphthous lesions (black arrow) and hyperemia (white arrow) at upper GI endoscopy of the patient.

DISCUSSION

EoE has been widely recognized since the mid-1990s and is the most common reason of dysphagia both in children and adults.[2] The pathophysiology of this condition is not completely understood. EoE seems to be chronic immune and/or antigen-mediated disorder. It is speculated to be mediated by IgG4 not by IgE.[3] EoE can be triggered by food antigen or aero-antigen.[1] Although the index case did not have any atopic symptoms prior to admission, but discontinuation of antihistamines during active phase resulted in melena, indicating its immunological basis.

The final diagnosis was made on histopathology. Almost 1/3rd of the patients diagnosed as EoE have normal endoscopic findings. To diagnose EoE, eosinophil values should be >15/HPF in pathology specimen of the esophagus and the other parts of the GIT should not have eosinophilia. The criterion was fully met in the index case.

The treatment is aimed to diminish symptoms, prevent disease progression, improve the quality of life, and treat complications.[2] Our case is unique as she presented with massive upper GI bleed which is very rare finding in EoE. Our patient had blood product replacement for the first 48 hours along with intravenous proton pump inhibitors, antacids, and antihistamine. There are reports regarding allergic and proton pump inhibitor-dependent subtypes of EoE. Most commonly used treatment modalities are proton pump inhibitors, topical or systemic steroids, anticlonal antibodies, and dietary modification. Proton pump inhibitors should be used for at least 8-12 weeks for relief of the symptoms. [4,5] In the index case endoscopic findings resolved after a month but recurred following discontinuing of medication. She used antacids and antihistamine again for one year and got remission.

To conclude, EoE rarely presents with gastrointestinal hemorrhage. The unusual presentation of EoE should be kept in mind. Proper treatment and strict follow-up can prevent complications of the disease.

Consent: Authors have submitted signed consent form from legal guardians of the patient for use of clinical material in this manuscript. The Consent form is available with Editorial office.

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