

## An unusual cause of failure to thrive

Saeed Abdi, Naghmeh Salarieh, Pardis Ketabi Moghadam

*Gastroenterology and Liver Diseases Research Center, Research Institute for Gastroenterology and Liver Diseases, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

(Please cite as: **Abdi S, Salarieh N, Ketabi Moghadam P. An unusual cause of failure to thrive. Gastroenterol Hepatol Bed Bench 2023;16(3)357-359. <https://doi.org/10.22037/ghfbb.v16i2.2683>**).

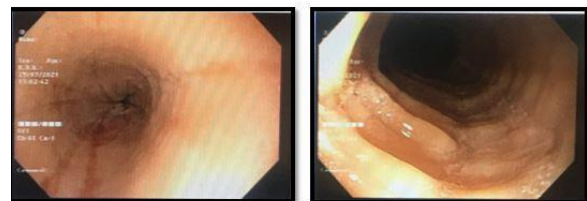
### Introduction

A 16-year-old boy was admitted to the gastrointestinal department of Taleghani hospital, a teaching referral center located in Tehran, Iran, with a complaint of dysphagia, fatigue, and delayed growth. He has complained about simultaneous dysphagia to liquids and solids from approximately ten years ago and progressively deteriorated during the last year. The trial of proton pump inhibitors was unsuccessful in treating dysphagia, although some of his reflux signs and symptoms had been masked using long-term antacids. He had a history of being small for gestational age at birth. His current weight and height were 35kg and 165cm, respectively, which seemed to be improper for his age. He was the third child of the family. He has been residing in Sanandaj, Iran, with his family since his birth. He had no history of addiction or any other illicit drugs. His family history was negative for any medical condition similar to his. His vital sign was normal. All his medical work-ups for delayed growth, including celiac serology, cystic fibrosis sweat test, metabolic syndrome tests, biochemical tests, etc., were unremarkable. Due to a history of long-standing dysphagia, a barium swallow and upper gastrointestinal endoscopy were performed. The barium swallow results are presented in Figure 1,

and the endoscopic view of his esophagus is presented in Figure 2 (A, B).



**Figure 1.** Barium esophagogram of the patient.



A. Upper third of esophagus

B. Middle third of esophagus

**Figure 2.** Endoscopic view of upper (A) and middle (B) thirds of the presented case.

**What is your diagnosis? Does your diagnosis justify the patient's delayed growth?**

Received: 20 October 2022 Accepted: 08 December 2022

**Reprint or Correspondence: Pardis Ketabi Moghadam, Gastroenterology and Liver Diseases Research Center, Research Institute for Gastroenterology and Liver Diseases, Shahid Beheshti University of Medical Sciences, Tehran, Iran.**

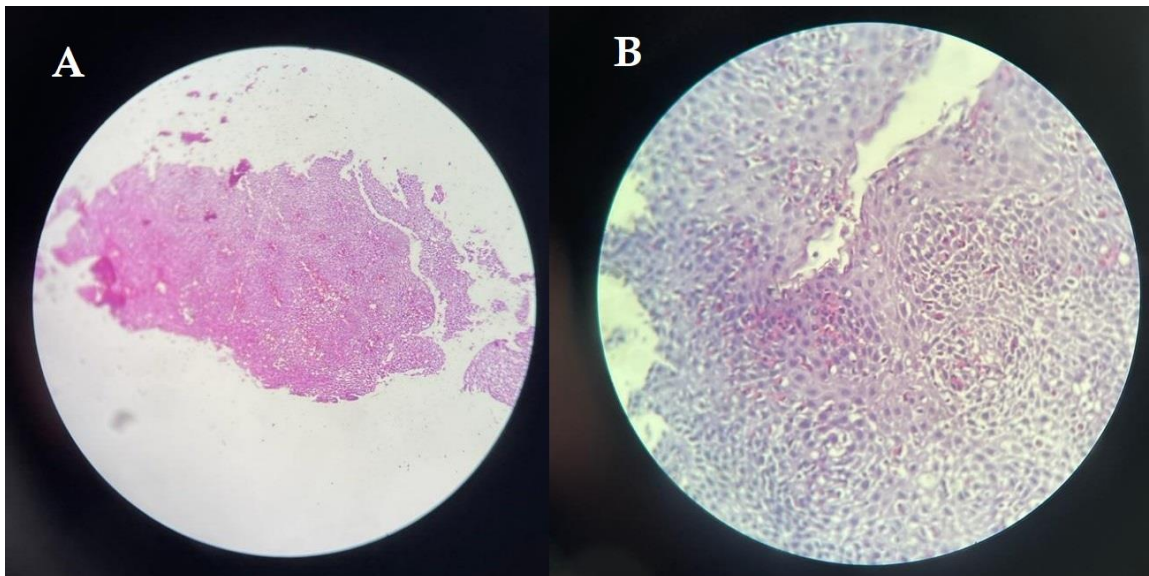
**E-mail:** [ketabimoghadam.p@gmail.com](mailto:ketabimoghadam.p@gmail.com)

**ORCID ID:** 0000-0001-7110-2950

## Discussion

Eosinophilic esophagitis (EoE) has emerged as a major cause of upper gastrointestinal dysphagia over the past two decades. Over this time, the epidemiology of EoE has changed over time, and its prevalence EoE has transformed from a rare case-reportable condition to a known disease that is more commonly encountered in gastroenterology clinics, emergency rooms, and endoscopy units. The incidence and prevalence of the disease are rapidly increasing throughout the world. Current incidence and prevalence of the disease have been estimated to range from 5-10 cases per 100,000 and 0.5-1 cases per 1000, respectively (1). Although the typical onset of EoE is childhood, the disease can be found in all age groups. The symptoms vary depending on the age at diagnosis and the duration of the disease. Clinical manifestations in infants and toddlers generally include vomiting, food refusal, choking meals, and, less commonly, failure to thrive. Predominant symptoms in school-age children and adolescents include dysphagia (difficulty swallowing), food impaction, choking, and gagging on meals, mainly while eating a coarse-textured dish. Other symptoms in this group of patients are abdominal/chest pain, vomiting, and regurgitation. A careful history of children and adolescents with EoE reveals that they have learned how to compensate for these symptoms by eating slowly, chewing excessively, taking small bites, excess drinking with meals,

inordinate lubricating meals with sauce, and avoiding specific food consistencies such as meat (or other coarse-textured foods) (2). The definite diagnosis of EoE is based on pathology, which reveals  $\geq 15$  eosinophils per 10-high power field (HPF) Figure 3 (A, B). Biopsies are recommended to be multiple and taken from the distal and upper/middle thirds of the esophagus in patients complaining about dysphagia with routine endoscopy before proceeding with the following diagnostic steps like esophageal manometry. EoE without good treatment leads to permanent esophageal fibrosis. These patients do not respond to medical treatments and require esophageal dilation. The endoscopic view of patients with EoE can be various from normal to a white punctate abscess, furrows (vertical grooves throughout the esophagus), feline esophagus (multiple fixed rings throughout the esophagus), and trachealization of the esophagus as can be seen in the presented case in the Figure 2. The barium swallow was done that showed non-specific signs like sliding hiatal hernia (Figure 1). There are two general types of management options in clinical practice for most patients with EoE (3). The first step in the management of EoE is a dietary restriction to eliminate allergen exposure. Elemental diet results in a striking improvement in symptoms and histologic evidence of disease in children and adolescents as identified by strict diagnostic criteria. Topical



**Figure 3.** (A, B) Pathology report declared maximum number of 35 eosinophilic infiltration/10-HPF at middle third and maximum number of 20 eosinophilic infiltration/10-HPF at distal third of esophagus.

corticosteroids are the second mainstay of treatment for EOE. However, there is no current data from randomized, controlled studies to provide the superiority of one particular approach. Combination therapy is also an option. All options should be started after consideration of PPIs as an adjunctive therapy (4). Failure to thrive in the presented case is justifiable due to a long-term course of dysphagia leading to food avoidance since childhood. Being diagnosed with EOE, he was started on a six-food elimination diet and oral corticosteroid therapy, which were unsuccessful due to the long duration of the disease, resulting in esophageal fibrosis. So, the patient went on three courses of esophageal dilation, which significantly improved the patient's symptoms.

### **Conflict of interests**

The authors declare that they have no conflict of interest.

### **References**

1. Dellon ES, Hirano I. Epidemiology and natural history of eosinophilic esophagitis. *Gastroenterology* 2018;154:319-32.
2. Carr S, Chan ES, Watson W. Eosinophilic esophagitis. *Allergy Asthma Clin Immunol* 2018;14:58.
3. Markowitz JE, Spergel JM, Ruchelli E, Liacouras CA. Elemental diet is an effective treatment for eosinophilic esophagitis in children and adolescents. *Am J Gastroenterol* 2003;98:777-82.
4. Greenhawt M, Aceves SS, Spergel JM, Rothenberg ME. The management of eosinophilic esophagitis. *J Allergy Clin Immunol Pract* 2013;1:332-40; quiz 341-2.