



Association of Eosinophilic Esophagitis and Type 1 Diabetes: A Case Report

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ABSTRACT

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Association of Type 1 Diabetes Mellitus and Eosinophilic Esophagitis Introduction Eosinophilic esophagitis (EoE) is a rare chronic immune-mediated disorder characterized by eosinophilic infiltration of the esophageal mucosa. We report the case of a child with type 1 diabetes mellitus (T1DM) who presented with dysphagia and was subsequently diagnosed with EoE. Case Report An 11-year-old boy with a 6-year history of well-controlled type 1 diabetes mellitus on insulin therapy and known celiac disease managed with a gluten-free diet was admitted for progressive dysphagia. Symptoms initially involved solid foods and subsequently progressed to both solids and liquids over a one-month period. Physical examination revealed mild growth retardation (-1.5 SD) and conjunctival pallor. Upper gastrointestinal endoscopy demonstrated ulcerative esophagitis extending over 5 cm. Histopathological examination of esophageal biopsies confirmed eosinophilic esophagitis. Duodenal biopsies showed subtotal villous atrophy consistent with celiac disease. The patient was treated with proton pump inhibitors (PPIs) and topical corticosteroid therapy. Due to the unavailability of commercially prepared topical budesonide formulations (oral viscous suspension or spray), an alternative preparation combining injectable budesonide with stevia was administered. A marked clinical improvement was observed within 48 hours. Discussion The coexistence of eosinophilic esophagitis and type 1 diabetes mellitus is uncommon. Previous studies have reported a predominance among male patients. Diagnosis relies on upper gastrointestinal endoscopy with systematic esophageal biopsies. The current standard treatment consists of proton pump inhibitors combined with topical corticosteroids. Conclusion Eosinophilic esophagitis remains a rare condition with incompletely understood pathogenesis and natural history. It may present with a wide spectrum of gastrointestinal symptoms and has been associated with connective tissue disorders and several autoimmune diseases. However, its association with type 1 diabetes mellitus remains exceptionally rare.

Objective: To describe the clinicopathological features of esophageal disease associated with type 1 diabetes.

KEYWORDS:

eosinophilic esophagitis, type 1 diabetes, celiac disease, dysphagia, child.

INTRODUCTION

Eosinophilic esophagitis (EoE) is a chronic immune-mediated esophageal disorder characterized by predominant eosinophilic infiltration of the esophageal epithelium [1]. Its incidence has increased over recent decades, probably owing to improved clinical and histopathological recognition [2].

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Clinical presentation varies with age. In children, symptoms include abdominal pain, vomiting, failure to thrive, and dysphagia [4].

EoE is frequently associated with atopic disorders, whereas its association with autoimmune diseases such as type 1 diabetes mellitus (T1DM) remains uncommon [5]. We report the case of a child with EoE in the context of T1DM and celiac disease.

CASE PRESENTATION

An 11-year-old boy had been followed for type 1 diabetes since the age of 5 years and was receiving insulin therapy with good glycemic control. He also had celiac disease, which was well controlled with a gluten-free diet.

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He was admitted for progressive dysphagia that had begun one month before hospitalization, initially affecting solid foods and later mixed-consistency foods. Physical examination revealed a weight of 32 kg, a height of 138 cm (−1.5 SD), and conjunctival pallor.

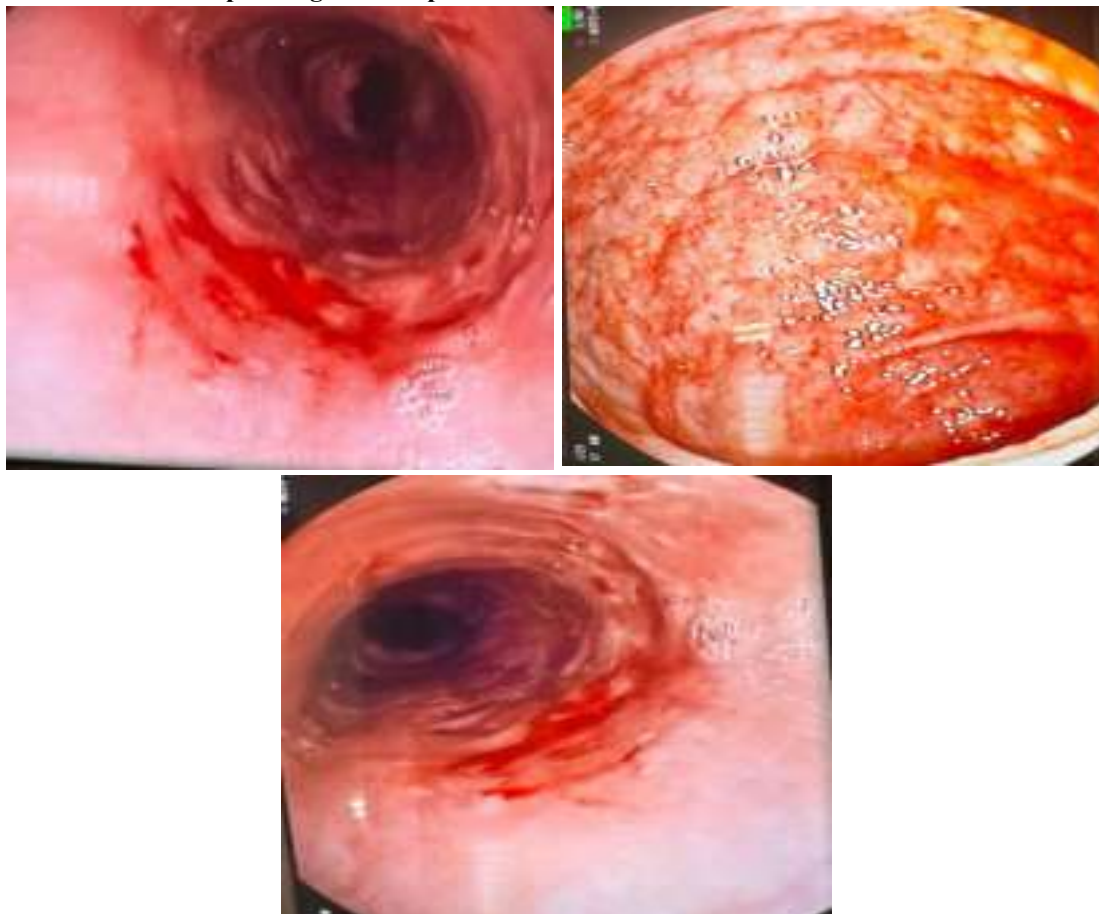
Upper gastrointestinal endoscopy showed circumferential ulcerative esophagitis involving the distal 5 cm of the esophagus. Multiple esophageal biopsies were obtained.

Histopathological examination demonstrated marked eosinophilic infiltration with eosinophilic microabscesses,

consistent with eosinophilic esophagitis. Jejunal biopsies revealed interstitial jejunitis with villous atrophy.

Treatment consisted of a proton pump inhibitor (PPI) combined with topical viscous budesonide. As an appropriate oral formulation was unavailable, a compounded preparation was made using injectable budesonide mixed with a thickening agent. Clinical improvement was observed within 48 hours of treatment initiation. A follow-up endoscopy was scheduled after three months.

Upper gastrointestinal endoscopic images of our patient



DISCUSSION

EoE is a chronic inflammatory disorder mediated by a T-helper type 2 (Th2) immune response. Diagnosis is based on symptoms of esophageal dysfunction together with histological evidence of at least 15 eosinophils per high-power field.

The association between EoE and autoimmune diseases has attracted increasing interest. Several studies have reported a higher prevalence of autoimmune disorders among patients with EoE, particularly celiac disease, autoimmune thyroiditis, and type 1 diabetes.

Jensen et al. reported a higher prevalence of type 1 diabetes among patients with EoE compared with the general population.

In our patient, the coexistence of type 1 diabetes, celiac disease, and EoE supports the hypothesis of an underlying autoimmune predisposition.

Current treatment is based on proton pump inhibitors, swallowed topical corticosteroids, and a gluten-free diet when celiac disease is present. Viscous budesonide remains one of the most effective therapies for achieving both clinical and histological remission.

Conclusion

Eosinophilic esophagitis is an important cause of dysphagia in children [1]. Its association with type 1 diabetes and celiac disease remains rare [2]. This case highlights the importance of upper gastrointestinal endoscopy with esophageal biopsies in patients presenting with persistent dysphagia in the setting of autoimmune disease.

REFERENCES

1. Dellon ES, Liacouras CA, Molina-Infante J, et al. Updated International Consensus Diagnostic Criteria for Eosinophilic Esophagitis. *Gastroenterology*. 2018;155(4):1022-1033.
2. Hirano I, Chan ES, Rank MA, et al. AGA Institute and Joint Task Force Clinical Guidelines for the Management of Eosinophilic Esophagitis. *Gastroenterology*. 2020;158(6):1776-1786.
3. Liacouras CA, Furuta GT, Hirano I, et al. Eosinophilic Esophagitis: Updated Consensus Recommendations. *J Allergy Clin Immunol*. 2011;128(1):3-20.
4. Jensen ET, Martin CF, Kappelman MD, Dellon ES. High prevalence of eosinophilic esophagitis in patients with autoimmune conditions. *Dig Dis Sci*. 2017;62(9):2528-2535.
5. Lucendo AJ, Molina-Infante J, Arias Á. Eosinophilic Esophagitis: Current Evidence-Based Diagnosis and Treatment. *J Allergy Clin Immunol*. 2017;140(6):1459-1466.