v. 4, n. 56, 2024

International Journal of Health Science

EOSINOPHILIC ESOPHAGITIS: CASE REPORT AND LITERATURE REVIEW

Adriene de Freitas Moreno Rodrigues
Nurse and professor of Medicine and Nursing courses at UNESC (``Centro Universitário do Espírito Santo``)

Franciel Bertoldi
Student of medicine course at: UNESC (``Centro Universitário do Espírito Santo``)

Izabela Oliveira Peres Fantin
Student of medicine course at: UNESC (``Centro Universitário do Espírito Santo``)

Thaylon Faria Nóbrega
Family and Community Doctor (MFC), professor and preceptor of the UNESC (``Centro Universitário do Espírito Santo``) and the medical residency program at MFC at ICEPi (``Instituto Capixaba de Ensino Pesquisa e Inovação``), tutor and supervisor of the Program: `` Mais Médicos`` in Brazil (PMMB);

Abstract: Eosinophilic esophagitis (EoE) is characterized by eosinophil infiltration in the esophageal mucosa, which can cause remodeling of the organ. This work aims to report a case of eosinophilic esophagitis and its evolution with treatment and changes in eating habits, following the ethics guidelines in research being assessed by the CEP/CONEP system, with opinion number 5,176,348. This is a case study of a male individual, complaining of chest pain caused by oppression and impaction of solid food, without a personal history of atopy, who was diagnosed with eosinophilic esophagitis through upper digestive endoscopy and biopsy. After seven months of treatment, his condition regressed and subsequently abandoned treatment. Eosinophilic esophagitis is a disease associated with immunoallergic pathogenesis. In adults, symptoms include dysphagia, retrosternal heartburn and food impaction due to reduced organ lumen in an advanced inflammatory process in the esophagus. The diagnosis is made by upper digestive endoscopy and histopathological analysis, with visualization of more than 15 eosinophils per field. Therapy improves quality of life and reduces the risk of eosinophilic infiltration of the esophageal mucosa.
Keywords: eosinophilic esophagitis, dysphagia, food impaction, treatment.

INTRODUCTION

Eosinophilic esophagitis (EoE) is a chronic disease characterized by the infiltration of eosinophils into the esophageal mucosa, triggering an inflammatory process and squamous epithelial hyperplasia. This condition can cause long-term structural changes and organ dysfunction, differentiating it from eosinophilic gastroenteritis, which spares the stomach and duodenum. The depth of eosinophilic infiltration determines the clinical presentation (Averbach et al., 2020).

The clinical presentation varies depending on age. In adults, dysphagia, food impaction and chest pain are common, while in children dysphagia, regurgitation, vomiting and, less frequently, failure to thrive are more common (Dani and Passos, 2011). Clinical symptoms and histological findings are crucial for the diagnosis of EoE. Some patients present with dysphagia, but most demonstrate atypical manifestations, such as emesis and abdominal pain, or may be asymptomatic (Hasosah et al., 2011). The histological diagnosis is made based on the finding of more than 15 eosinophils per high-power field and the absence of eosinophilia in other segments of the digestive tract (Dellon et al., 2018). Endoscopic features include linear grooves, exudate, fragile mucosa, edema and rings, leading to the appearance of tracheization of the organ (Yoon et al., 2021).

CASE REPORT

A person called FB, male, 32 years old, married, with a history of dysphagia in childhood and adolescence, presented, at the age of 24, with a significant episode of food impaction. He underwent upper digestive endoscopy (EDA), which revealed a decrease in the mucosa and caliber, in addition to the appearance of tracheization of the esophagus. During the examination, the passage of the device caused lacerations and bleeding in the esophagus, making it impossible to collect a biopsy at the time. The following month, a new EDA was performed, showing an esophagus with multiple rings and residual lumen estimated at 7 mm. A sample was collected for histopathological study and treatment was initiated with a high-dose proton pump inhibitor (PPI) for two months, associated withcorticosteroid therapy. The diagnosis of EoE was confirmed and esophageal dilation was indicated in the same year.

After dilation, treatment included lyophilized budesonide in sucralose medium, PPI and dietary restriction of gluten, milk and dairy products, nuts, eggs and seafood, with semi-annual monitoring by EDA. The patient followed the treatment for approximately eight months, showing significant improvement, but later abandoned the treatment. In 2020, FB presented a new episode of food impaction, requiring hospitalization and removal of a foreign body. EDA revealed concentric stenosis measuring approximately 6 mm. In 2021, FB was hospitalized again with non-specific chest pain and, after a new EDA, a nasoenteric tube was introduced for enteral feeding. After esophageal dilation and continuous treatment with corticosteroids and PPI, there was a significant improvement in the esophageal appearance and a reduction in eosinophils.

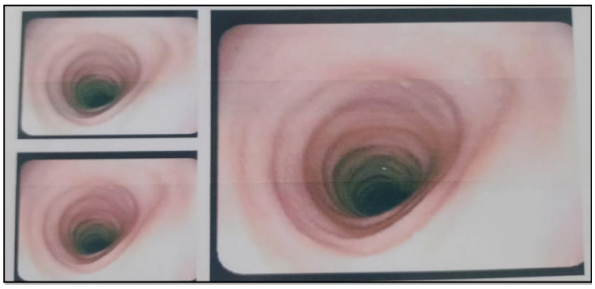

Figure 1: Esophagus with formation of multiple rings and light estimated at 7 mm

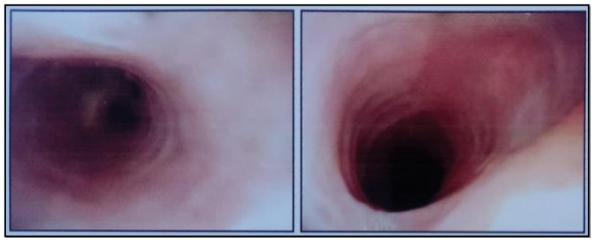

Figure 2: Esophagus after 30 days of dilation and treatment with topical corticosteroids

DISCUSSION

The first case of Eosinophilic Esophagitis (EoE) was recorded in 1978, but it was only in the 1990s that it began to receive greater investigative attention. In 2007, the first consensus was established to define the diagnostic criteria for this condition, which were subsequently revised in 2017. Due to its relative newness as a pathology, accompanied by recent terminologies and classifications, Brazilian literature still lacks content, especially regarding concerns the detailed evaluation of endoscopic and histological findings (Dellon ES et al, 2018).

Signs observed in patients with EoE result from remodeling of the esophagus and are linked to changes in biomechanical characteristics, including decreased motor function and compliance. Several techniques have been studied for a better assessment of structural changes and their consequences, such as endoscopic ultrasound, barium esophagram and impedanciometry (Dellon ES et al, 2018).

The main differential diagnosis is made with GERD, due to its high prevalence and the similarity of the clinical picture with eosinophilic esophagitis. However, in GERD, patients respond positively to the use of proton pump inhibitors, unlike in eosinophilic esophagitis, in which acid-reducing therapy such as antacids, proton pump inhibitors, and histamine H_2 receptor antagonists do not. results in clinical improvement. Furthermore, in eosinophilic esophagitis, pH measurement is normal (Dani, R. et al, 2011).

Food and inhalant allergens play a crucial role in the progression of the disease. Carrying out an allergy study is essential, as is considering its implications in the therapeutic approach to this condition. Skin testing can detect allergen sensitization in patients, enabling precise dietary intervention to achieve symptom remission and normalize biopsy results (Kim, SJ et al, 2021).

Due to its immunoallergic nature, corticosteroid therapy is essential in treatment. In more serious situations, systemic steroids are indicated for immediate relief of symptoms, while topical use (with fluticasone or beclomethasone) is effective in adults and generally has fewer adverse effects. In cases of irreversible esophageal stricture, endoscopic dilation procedures may be performed to improve symptoms and facilitate feeding, although this may involve risks such as perforation (Young, E. et al, 2022).

This patient, in addition to the classic findings observed in the first endoscopy, presented a characteristic clinical picture of the disease. He met criteria such as a personal history of atopy, and the esophageal biopsy revealed a greater number of eosinophils per field than indicated. This set of evidence made the diagnosis possible. Treatment with a proton pump inhibitor was started, but improvement in the clinical condition was only observed with the start of corticosteroids.

He used systemic corticosteroids (prednisone) to stop the crisis he was experiencing (episodes of food impaction). After a brief period of use, he switched to topical use of fluticasone for more effective treatment and control of the disease, due to its immunological-allergic basis. This resulted in complete remission of symptoms and endoscopic findings, an outcome that is not always observed in all patients.

CONCLUSION

The EoE is a chronic disease that requires early diagnosis and ongoing treatment to avoid complications such as esophageal stricture and food impaction. Adherence to treatment is crucial to avoid relapses and maintain patients' quality of life. Management of EoE includes a combination of drug therapies and dietary changes, with regular medical monitoring being essential.

REFERENCES

Averbach, M., Fang, H. L., Masúo, L., et al. (2020). Atlas de Endoscopia Digestiva da SOBED 2ª edição. Thieme Brazil.Dani, R., Passos, M. do C. F. (2011). Gastroenterologia Essencial, 4ª edição. Guanabara Koogan.

Dellon, E. S., et al. (2018). Updated international consensus diagnostic criteria for eosinophilic esophagitis: proceedings of the AGREE conference. Gastroenterology, 155(4), 1022-1033.

Dellon, E. S., Khoury, P., Muir, A. B., Liacouras, C. A., Safroneeva, E., Atkins, D., Collins, M. H., Gonsalves, N., Falk, G, et al. (2022). A Clinical Severity Index for Eosinophilic Esophagitis: Development, Consensus, and Future Directions. Gastroenterology, 163:59–76.

Hasosah, M. Y., et al. (2011). Eosinophilic esophagitis in Saudi children: symptoms, histology and endoscopy results. Saudi Journal of Gastroenterology, 17(2), 119.

Yoon, H. J., et al. (2021). Reversibility of Endoscopic Features after Treatment for Eosinophilic Esophagitis. Yonsei Medical Journal, 62(6), 487.

Kim, S. J., Choi, C. W., & Hwang, C. S. (2021). Diagnóstico e Tratamento da Esofagite Eosinofílica. Coreano J Gastroenterol Vol. 79.

Young, E., & Philpott, H. (2022). Fisiopatologia da disfagia na esofagite eosinofílica: causas, consequências e tratamento. Doenças e Ciências Digestivas, 67:1101–1115.