

Eosinophilic Esophagitis: From a Sneaking Suspicion to a Clear Diagnosis

Alex Straumann

Department of Gastroenterology, University Hospital Basel, Basel, Switzerland

Eosinophilic esophagitis (EoE) represents a chronic, immune-mediated, esophageal disease that is characterized clinically by symptoms related to esophageal dysfunction and histologically by an eosinophil-predominant inflammation [1]. While EoE was originally considered to be a rare disease, today it affects up to 1 in 2,500 individuals in the United States [2, 3] and in Europe [4]. In adults and adolescents, esophageal dysfunction due to EoE manifests itself as dysphagia for solids [5, 6], leading to long-lasting food impactions that necessitate endoscopic bolus removal in more than one third of the affected individuals [7]. Surprisingly, dysphagia is often regarded as only a nasty molester and not as an alarming symptom, despite the fact that it almost always points to an underlying organic disease of the esophagus such as cancer, EoE or complicated gastroesophageal reflux disease (GERD). EoE patients typically modify their eating habits by strictly avoiding foods of dry and/or rough consistencies, without seeking medical help. As a result, EoE is diagnosed on average 4–5 years after the onset of the first symptoms [8].

In this issue of *Digestion*, von Arnim et al. [9] present a study aimed at evaluating the predictive value of eight clinical and two laboratory markers in a group of 23 adult EoE patients; 20 patients with GERD served as a control group. The purpose of the study was to alert endoscopists

to the potential presence of EoE prior to performing an upper endoscopy. Despite the fact that neither selection nor grading of the items fulfills the established standards required for outcome measurements, we can learn two facts from this report. First, 90% of patients with a history of food impaction and PPI-refractory chest pain, in combination with an increased number of eosinophils in the peripheral blood, are likely to suffer from EoE. Second, the EoE patient population profile markedly differs from that of GERD. While EoE predominantly affects young males, who have an atopic background and present with dysphagia, GERD mainly affects older individuals, independent of gender or atopies.

The results of this and several other studies have two potential implications for routine clinical practice. First, it is important to *'regard swallowing disturbances as an alarming symptom and order an upper endoscopy'*. In addition, *'if patients having an EoE profile are referred for diagnostic work-up of dysphagia, make not only an endoscopy but take biopsies in a systematic manner'* [10, 11]. Following these two simple recommendations will likely help to detect EoE at earlier stages, hopefully prior to the appearance of risky food impactions and prior to the development of a strictured and narrowed esophagus resulting from a long-standing unbridled eosinophil inflammation.

References

- 1 Liacouras CA, Furuta GT, Hirano I, Atkins D, Attwood SE, Bonis PA, Burks AW, Chehade M, Collins MH, Dellon ES, Dohil R, Falk GW, Gonsalves N, Gupta SK, Katzka DA, Lucendo AJ, Markowitz JE, Noel RJ, Odze RD, Putnam PE, Richter JE, Romero Y, Ruchelli E, Sampson HA, Schoepfer A, Shaheen NJ, Sicherer SH, Spechler S, Spergel JM, Straumann A, Wershil BK, Rothenberg ME, Aceves SS: Eosinophilic esophagitis: updated consensus recommendations for children and adults. *J Allergy Clin Immunol* 2011;128:3–20.
- 2 Prasad GA, Alexander JA, Schleck CD, Zinsmeister AR, Smirk TC, Elias RM, Locke GR, Talley NJ: Epidemiology of eosinophilic esophagitis over three decades in Olmsted County, Minnesota. *Clin Gastroenterol Hepatol* 2009;7:1055–1061.
- 3 Kapel RC, Miller JK, Torres C, Aksoy S, Lash R, Katzka DA: Eosinophilic esophagitis: a prevalent disease in the United States that affects all age groups. *Gastroenterology* 2008;134:1316–1321.
- 4 Hruz P, Straumann A, Bussmann C, Heer P, Simon HU, Zwahlen M, Beglinger C, Schoepfer AM: Escalating incidence of eosinophilic esophagitis: a 20-year prospective, population-based study in Olten County, Switzerland. *J Allergy Clin Immunol* 2011, E-pub ahead of print.
- 5 Attwood SE, Smyrk TC, Demeester TR, Jones JB: Esophageal eosinophilia with dysphagia, a distinct clinicopathologic syndrome. *Dig Dis Sci* 1993;38:109–116.
- 6 Straumann A, Spichtin HP, Bernoulli R, Loosli J, Voegtlin J: Idiopathic eosinophilic esophagitis: a frequently overlooked disease with typical clinical aspects and discrete endoscopic findings (in German with English abstract). *Schweiz Med Wochenschr* 1994;124:1419–1429.
- 7 Straumann A, Bussmann C, Zuber M, Vannini S, Simon HU, Schoepfer AM: Eosinophilic esophagitis: analysis of food impaction and perforation in 251 adolescent and adult patients. *Clin Gastroenterol Hepatol* 2008;6:598–600.
- 8 Furuta GT, Liacouras C, Collins MH, et al: Eosinophilic esophagitis in children and adults: a systematic review and consensus recommendations for diagnosis and treatment. *Gastroenterology* 2007;133:1342–1363.
- 9 von Arnim U, Wex T, Röhl FW, Neumann H, Küster D, Weigt J, Mönkemüller K, Malfertheiner P: Identification of clinical and laboratory markers for predicting eosinophilic esophagitis in adults. *Digestion* 2011;84:323–328.
- 10 Gonsalves N, Policarpio-Nicolas M, Zhang Q, Rao S, Hirano I: Histopathologic variability and endoscopic correlates in adults with eosinophilic esophagitis. *Gastrointest Endosc* 2006;64:313–319.
- 11 Shah A, Kagalwalla AF, Gonsalves N, Melin-Aldana H, Li BU, Hirano I: Histopathologic variability in children with eosinophilic esophagitis. *Am J Gastroenterol* 2009;104:716–721.