## Digestion

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# Distinguishing Eosinophilic Esophagitis from Gastroesophageal Reflux Disease upon PPI Refractoriness: What about PPI-Responsive Esophageal Eosinophilia?

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Dear Sir,

We read with great interest the article by von Arnim et al. [1] recently published in your journal. The authors show that eosinophilic esophagitis (EoE) can be easily suspected before upper endoscopy on the basis of some laboratory and clinical markers. The authors conclude that their set of markers 'allow physicians to distinguish EoE from gastroesophageal reflux disease (GERD) even before upper gastrointestinal endoscopy', but things may not be as simple as they seem.

According to the 2007 first consensus EOE guidelines [2], it was established that GERD and EOE could be easily distinguished upon responsiveness to PPI therapy. However, recent reports since 2006 have shown that up to 40–50% of pediatric and adult patients with dense esophageal eosinophilia achieve complete remission on PPI therapy [3-7], leading to the description of a new potential disease phenotype in the 2011 updated guidelines, i.e. PPI-responsive esophageal eosinophilia (PPIRee) [8]. Whether these patients represent a sub-phenotype of GERD, EoE or a combined mechanism of both disorders remains unknown. In the aforementioned reports neither histological specific features [6], pH esophageal monitoring [4, 6] nor quantitative immunohistochemistry for mast cells [7] were capable to discern between PPIRee and EoE. In addition, a recent investigation has demonstrated that the secretion of eotaxin-3 could be blocked by PPI therapy in esophageal squamous epithelial cell lines from patients with EoE stimulated with either IL-13 or IL-4 [9]. These findings suggest that PPI therapy can have anti-inflammatory actions in EoE independent of their effects on acid secretion. As such, refractoriness to PPI therapy is highly suggestive of EoE, but emerging evidence is casting doubt on the assumption that a positive response to PPI therapy distinguishes EoE from GERD [10].

Undoubtedly, the markers reported by von Arnim et al. [1] refine the clinical suspicion of EoE and raise awareness of the need of esophageal biopsies, but far fail to clarify the complex interaction between EoE, GERD and PPI therapy.

#### **Disclosure Statement**

The authors declare that there are no conflicts of interest.

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