

Title:

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Clinical-pathological correlation of various symptoms in the diagnosis of pediatric eosinophilic esophagitis

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Dear Editor,

Eosinophilic esophagitis (EoE) is an immune-mediated disorder of the esophagus with a broad spectrum of clinical presentations. Dysphagia and food impaction are the cardinal symptoms; however, their diagnostic utility remains controversial in pediatric populations (1). This study evaluates the clinical-pathological association of different symptoms with EoE. We conducted an analytical study of patients under 15 years of age who underwent esophagoscopy at a pediatric hospital between 2015 and 2022 due to suspected EoE (Reg. 341E/2023). The prevalence of various symptoms and medical histories was compared, along with their association with histopathological abnormalities, between patients with EoE and those without the disease (NEoE). A total of 24 EoE patients and 17 NEoE children were included. Twenty percent of the EoE patients reported heartburn, while only 5% of the NEoE participants presented this symptom ($p=0.182$). Similarly, more patients in the EoE group experienced food impaction (33%) compared to the NEoE series (17%; $p=0.264$). Another highly prevalent variable among the EoE population was food allergies (58%), which were only present in 29% of NEoE subjects ($p=0.067$) (**Table 1**). These results are consistent with the rates of dysphagia and food impaction described in the literature, 30-60% and 20-45%, respectively (2). Other symptoms, such as heartburn, may confound the diagnosis with gastroesophageal reflux disease, one of the main differential diagnoses (3). In fact, in our series, 20% of EoE patients reported heartburn. Additionally, younger patients frequently exhibit diverse symptoms such as vomiting (69%) and weight loss (21%) (4). In our study, we documented a much lower vomiting rate (8%), which could be related to the

patients' median age (11 years). Another highly representative clinical variable in our EoE population was food allergies (58%). This is comparable to reports from other authors, where the prevalence of EoE in patients with food allergies is significantly higher than in the general population (4.7% vs. 0.04%) (5). Although this study has methodological limitations, our results suggest that while dysphagia is highly prevalent among EoE patients, it is also common in other esophageal diseases, resulting in low specificity in this context. However, the presence of heartburn, food impaction, and food allergies is more closely related to the histological diagnosis of EoE.

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TABLES

Table 1. Prevalence of symptoms and clinical variables in the analyzed groups.

Variable	NEoE (n = 17)	EoE (n = 24)	p Value
Age (years)	12 ± 3.2	11.1 ± 2.8	0.378
Female n (%)	10 (58.8 %)	9 (37.5 %)	0.177
Male n (%)	7 (41.2 %)	15 (62.5 %)	
AAP n (%)	0 (0 %)	1 (4.2 %)	0.394
CAP n (%)	2 (11.8 %)	4 (16.7 %)	0.662
Occasional vomiting n (%)	0 (0 %)	2 (8.3 %)	0.222
Persistent vomiting n (%)	0 (0 %)	0 (0 %)	—
Heartburn n (%)	1 (5.9 %)	5 (20.8 %)	0.182
Weight loss n (%)	0 (0 %)	0 (0 %)	—
Food impaction n (%)	3 (17.6 %)	8 (33.3 %)	0.264
Dysphagia n (%)	14 (82.4 %)	20 (83.3 %)	0.934



Food allergies n (%)	5 (29.4 %)	14 (58.3 %)	0.067
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AAP: Acute abdominal pain (<3 months); **CAP:** Chronic abdominal pain (≥3 months).

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