

学位論文の要旨

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- 学位論文名 Reliability of Symptoms and Endoscopic Findings for Diagnosis of Esophageal Eosinophilia in a Japanese Population
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論文内容の要旨

INTRODUCTION

Eosinophilic esophagitis (EoE) is a chronic inflammatory immune-mediated disease characterized by esophageal dysfunction and eosinophil-predominant infiltration in the esophageal epithelium. Pathologically, the hallmark of EoE is esophageal eosinophilia (EE), commonly defined by more than 15 eosinophils per high power field (HPF) in at least 1 esophageal biopsy specimen. EoE has become increasingly prevalent over the past decade, especially in Western countries. Although cases are also increasingly reported in Asian countries, the disease is thought to be rare in those countries and its clinical characteristics have not fully evaluated. Race may influence the clinical presentation and have a role in the phenotypic expression of EoE. Therefore, we aimed to investigate the diagnostic utility of EE, based on symptoms and endoscopic findings in Japanese individuals.

MATERIALS AND METHODS

We prospectively enrolled subjects who complained of esophageal symptoms suggesting EoE at least once during the last week when esophagogastroduodenoscopy (EGD) was scheduled, and/or those with endoscopic findings of suspected EoE at the outpatient clinics of 12 hospitals between August 2011 and August 2012. Those less than 15 years of age, or who received glucocorticoid administration, or had a high risk of bleeding from a biopsy were excluded. The patients who had organic causes of the symptoms, such as endoscopically proven reflux esophagitis, gastroduodenal ulcers, and upper gastrointestinal malignant tumors, were also excluded.

Endoscopic findings suspicious of EoE included longitudinal linear furrows, multiple concentric rings, whitish exudates, and reddening. At least two biopsy samples were taken from the upper and lower esophagus. Histological diagnosis of EE was defined as the presence of more than 15 eosinophils per HPF.

Standard dose of proton pump inhibitor (PPI) was prescribed for 4-8 weeks to symptomatic patients with EE. Positive response to PPI was defined as a case in which administration of PPI improved symptoms and intraepithelial eosinophilic infiltration (<5/HPF). PPI-resistant cases with EE were defined as cases with EoE.

The diagnostic utility of subjective symptoms and endoscopic findings was compared between the EE and non-EE groups using logistic regression analysis.

The protocol of this study was approved by the ethical committee of Shimane University School of Medicine, and written informed consent was obtained from all subjects prior to enrolment.

RESULTS AND DISCUSSION

During the study period of 13 months, EGD was performed in 17,324 patients, of whom 349 (163 men, 186 women; mean age 60.6 years) were enrolled in this study. Of the 349 enrolled patients, 319 had symptoms suggesting EoE, while 30 had no symptoms but endoscopic findings

suggesting EoE. Of those with symptoms, 8 (2.5%) had EE, and 3 were finally diagnosed with EoE. Dysphagia was the most common symptom observed in symptomatic patients, and none of the patients had a history of food impaction, a common symptom associated with EoE in Western individuals, especially Caucasians, suggesting racial differences with regard to EoE-related symptoms. Although the ratio of dysphagia was higher in our patients with EE (62.5%) than in those without EE (30.4%), subjective symptoms including dysphagia, heartburn, and chest pain were not specific enough to make a diagnosis of EE.

Eleven (18.3%) of 60 patients with endoscopic findings were diagnosed as EE, and linear furrows were seen in 10 (90.9%), while other findings were not so frequent. Interestingly, only a single patient (0.35%) was diagnosed with EE among those with symptoms but no endoscopic findings (n=289). Therefore, the presence of abnormal endoscopic findings was significantly more important to predict EE. Among the endoscopic findings, linear furrows was the most reliable (OR=41.583) as shown by logistic regression analysis. The sensitivity for linear furrows was modest at 83%, whereas specificity was 95%. These findings contradict the routine esophageal biopsies for the purpose of detecting EE in patients without abnormal endoscopic findings suggesting EoE.

CONCLUSION

EE remains a rare condition among Japanese patients with chest and epigastric symptoms as compared with Western populations. Presenting symptoms including dysphagia do not lend support to a diagnosis of EE. As for endoscopic findings, the presence of linear furrows was the most frequent and useful for EE diagnosis.