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Endoscopic dilation in eosinophilic esophagitis: a treatment strategy associated with a high risk of perforation

We read with great interest the report of a case of an esophageal perforation occurring after endoscopic dilation in a young patient diagnosed with eosinophilic esophagitis that was published recently in your journal [1]. Eosinophilic esophagitis is an inflammatory allergic disease characterized by a chronic infiltration of eosinophilic leukocytes restricted to the esophagus, in which the main symptoms are dysphagia and frequent episodes of food impaction. Common endoscopic findings in these patients are tearing and lacerations of the mucosa, which result from the patient's efforts to induce vomiting and dislodge impacted food [2] (see **Figure 1**), and which might also be attributed to the action of hydrostatic balloons or dilators which many authors have used for treating patients with eosinophilic esophagitis.

Endoscopic dilation is a well-established treatment for benign stenoses of the digestive tract, such as rigid or fibrous esophageal stenosis resulting from the healing of long-term inflammatory processes affecting the mucosa (e.g. following chronic gastroesophageal reflux disease). Dilation widens the gastrointestinal lumen by tearing the fibrous structures from the wall. Consequently, several authors have resorted to hydropneumatic dilation of the mucosal stenosis of the esophagus caused by eosinophilic infiltration [3,4]. Although the prolonged chronic inflammation of the mucosa could lead to scarring processes (collagen deposition and fibrous remodelling of the wall), to date we have not found any objective evidence of fibrous remodelling in eosinophilic esophagitis because of the technical limitations of obtaining esophageal biopsies using a standard forceps for the study of the lamina propria and submucosa of the esophagus.

Endoscopic dilation brings immediate symptomatic relief [5,6], which is why it has become the treatment of choice for dysphagia in eosinophilic esophagitis for several authors [7,8]. However, endoscopic dilation of the esophagus does not have any effect on the underlying inflammatory process and is both uncomfortable and dangerous for the patient. In terms of complications of dilation treatment for

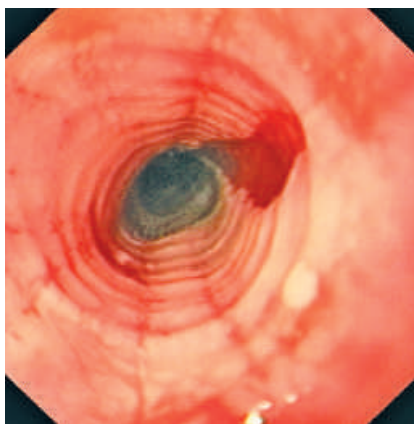
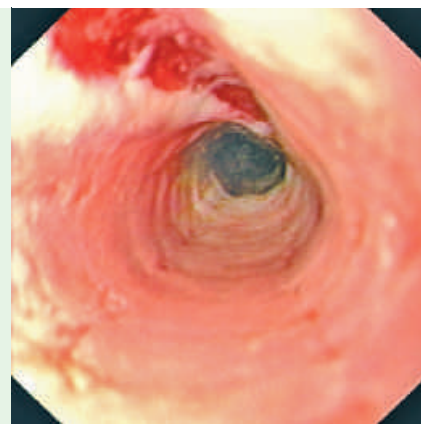


Figure 1 Images from two patients with eosinophilic esophagitis and spontaneous esophageal tearing, with ring disruption. This occurred



as a result of the efforts the patients made to induce vomiting and dislodge impacted food.

eosinophilic esophagitis, apart from the case recently reported by Eisenbach et al. [1], two other cases of esophageal perforation have been reported, with the patients experiencing thoracic pain requiring hospitalization and intravenous analgesics as well as bleeding caused by unusual tearing and hematomas [9,10]. Because the functional stenosis in this condition stems partially from contraction of esophageal smooth muscle [11], endoscopic dilation in eosinophilic esophagitis certainly poses an unacceptable risk of tearing and perforation of the esophagus due to the absence of a fibrous wall to reduce the risk of detachment by containing the pressure from the dilator. Distension of the esophageal lumen pulls directly on its wall, causing separation of the different layers. This in turn accounts for the unusual severity of post-endoscopic treatment tearing in eosinophilic esophagitis. It is therefore our opinion that this treatment should not be considered in patients with eosinophilic esophagitis. Given the efficacy and proved safety of topical steroids in this disease, when eosinophilic esophagitis is suspected to be the cause of dysphagia and esophageal stenosis, we should abstain from performing dilations until the presence of an eosinophilic infiltrate has been ruled out.

Competing interests: None

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