Endoscopic Treatment of Eosinophilic Esophagitis

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KEYWORDS

• Esophageal dilation • Maloney and Savary bougies • Through-the-scope balloons
• Esophageal perforation • Chest pain • Deep tears • Eosinophilic esophagitis
• Strictures

KEY POINTS

- Tissue remodeling with fibrosis is the main cause of solid-food dysphagia and food impactions in adult patients with eosinophilic esophagitis (EoE).
- Simple endoscopy is not accurate for determining the degree and location of strictures; careful bougie dilation can be more helpful.
- Gradual bougie/balloon dilation to 17 to 18 mm is safe and can relieve dysphagia symptoms for an average of 2 years.
- Slow and gradual dilation is the key to success. Some postdilation chest pain is expected.
- Some healthy adult patients with EoE prefer an occasional esophageal dilation to regular use of medications or restricted diet.

INTRODUCTION

Eosinophilic esophagitis (EoE) was first recognized as an inflammatory disease of the esophagus with mucosal eosinophilia, but over the last 10 years it has been slowly recognized that esophageal remodeling with stricture disease is an important feature of this disease in adult, and sometimes adolescent, patients. Historically and in early guidelines,[1] endoscopic treatment with esophageal dilation was relegated to a small number of patients with intractable strictures and was thought to be dangerous with a high rate of chest pain and perforations. Esophageal dilation, especially for patients with the fibrostenotic phenotype of EoE, is now a highly effective, immediate, and safe therapy for relieving dysphagia that can provide long-term relief of dysphagia with or without concomitant medical or dietary therapy.

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CLINICAL ASSESSMENT OF ESOPHAGEAL REMODELING

In children, EoE is more of an inflammatory process with symptoms of failure to thrive, vomiting, heartburn, and abdominal pain. In adolescents and adults, the symptoms are primarily solid-food dysphagia, heartburn, and chest pain that can be associated with food impactions with or without strictures.[1] Esophageal strictures are present in 30% to 80% of adults with EoE, but are less frequent in children (5%–10%), although approximately one-third experience food impactions. Two studies from Switzerland and the United States[2,3] confirm that the presence and severity of stricture disease coincide with a longer duration of undiagnosed disease. These changes in clinical features are the results of disease evolution from a predominately inflammatory process, which, if left untreated for many years, results in esophageal remodeling with fibrosis, rings, strictures, and generalized esophageal narrowing.[4]

History

The symptom of dysphagia for solid foods in patients with EoE is a complex pathophysiologic process with both mechanical and psychological factors. Although the inciting event is the mucosal eosinophilic inflammation, the degree of mucosal eosinophilia does not correlate with the severity of dysphagia.[5] As shown in **Fig. 1**, dysphagia is related to mechanical factors that include the degree of dysmotility present, and the extent of mucosal inflammation and fibrostenosis from esophageal remodeling.[6] The contribution of each may vary in individual patients and be incompletely evaluated by endoscopy with biopsies alone. Furthermore, treatments tend to address only 1 of these mechanisms. Thus, patients on topical steroids or dietary therapy might continue to experience dysphagia despite adequate antiinflammatory medications, if fibrostenosis or severe dysmotility is not recognized.

Barium Esophagram

The barium esophagram is a cheap and readily available test to assess esophageal remodeling and identify areas with strictures. Before the term EoE, radiograph patterns in these patients were associated with several aliases for this disease, including

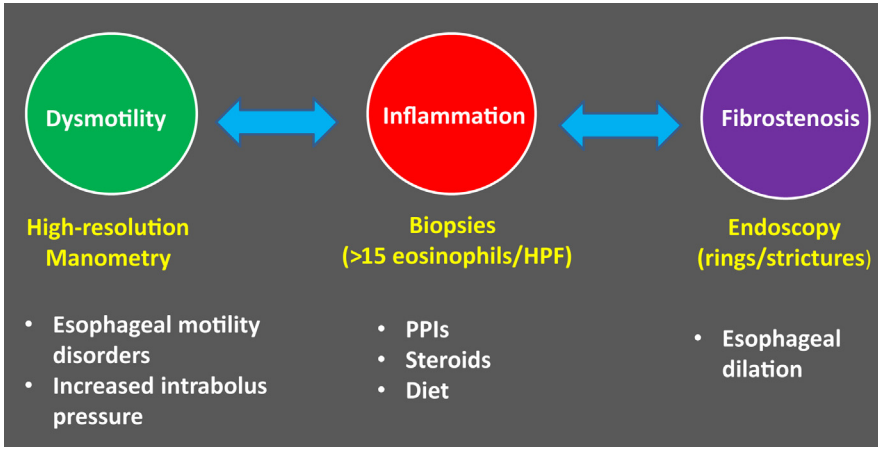

Fig. 1. Mechanical factors contributing to dysphagia in patients with EoE. One or more of these factors may contribute to symptoms and food impactions. HPF, high-power field; PPIs, proton pump inhibitors. (*From* Richter JE. New guidelines for eosinophilic esophagitis. Will it measure what we want? Gastroenterology 2014;147:1212–3; with permission.)