Other Forms of Esophagitis

It Is Not Gastroesophageal Reflux Disease, So Now What Do I Do?

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KEYWORDS

• Eosinophilic • Lymphocytic • Esophagitis dissecans superficialis • Sloughing • Pill

Key points

- Several biopsy samples from multiple levels in esophagus and remaining gastrointestinal tract facilitate distinction between entities that cause esophageal eosinophilia.
- Distribution and nature of inflammatory infiltrate are useful in formulating a differential diagnosis when esophageal lymphocytosis is encountered.
- Endoscopic and pathologic correlation is critical when evaluating for esophagitis dissecans superficialis (sloughing esophagitis).
- Characteristic histologic features are clues to cause when infectious esophagitis is suspected.

ABSTRACT

Esophagitis results from diverse causes, including gastroesophageal reflux, immune-mediated or allergic reactions, therapeutic complications, and infections. The appropriate clinical management differs in each of these situations and is often guided by pathologic interpretation of endoscopic mucosal biopsy specimens. This review summarizes the diagnostic features of unusual forms of esophagitis, including eosinophilic esophagitis, lymphocytic esophagitis, esophagitis dissecans superficialis, drug-induced esophageal injury, and bullous disorders. Differential diagnoses and distinguishing features are emphasized.

OVERVIEW

Upper endoscopy with mucosal biopsy is increasingly used to evaluate patients with symptoms related to the esophagus. As a result, less common forms of esophagitis are now recognized by clinicians and pathologists. Accurate classification of esophageal injury is important to management, although many disorders show overlapping histologic features with gastroesophageal reflux disease (GERD) and remain a source of diagnostic confusion among surgical pathologists. The purpose of this review is to provide readers with helpful practice points that aid distinction between GERD and its potential mimics as well as other types of esophageal injury.

EOSINOPHILIC ESOPHAGITIS

CLINICAL AND ENDOSCOPIC FEATURES

Eosinophilic esophagitis is a chronic immune-mediated disorder that shows a predilection for children and adults under 50 years of age. Patients typically present with dysphagia to solids and recurrent food impaction, although nausea

Disclosure: Dr N.C. Panarelli receives royalties from Elsevier, Inc for book chapter authorship.
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Surgical Pathology ■ (2017) ■–■
http://dx.doi.org/10.1016/j.path.2017.07.001

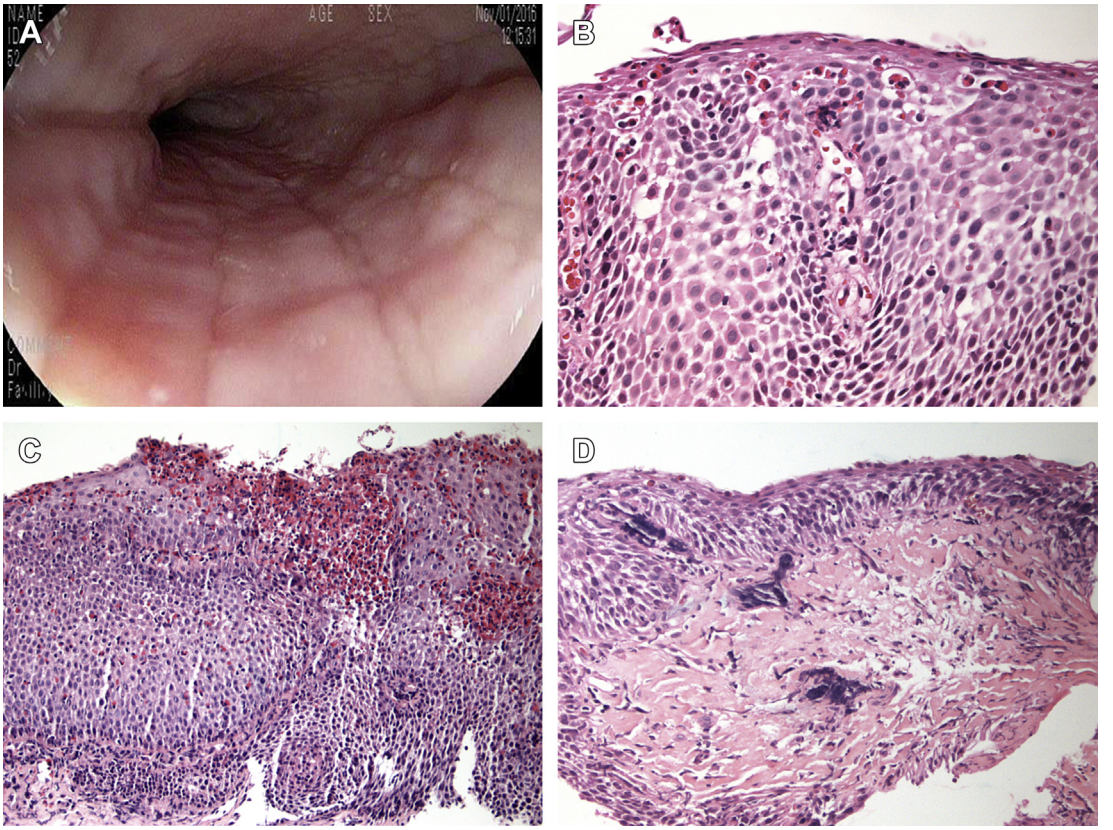

Fig. 1. Linear furrows are present in the esophagus of a patient with eosinophilic esophagitis (*A*). Biopsy specimens show luminally oriented eosinophils in clusters and intercellular edema (*B*). Eosinophils coat the mucosal surface in a severe case (*C*). Subepithelial fibrosis is a consequence of long-standing disease (*D*) (H&E, original magnifications, [*B*] ×200 [*C,D*] ×100).

and vomiting are more common in pediatric patients.[1,2] Affected individuals often have a history of atopic disorders, including asthma, dermatitis, and food allergies. Endoscopic findings include esophageal rings, linear furrows, white plaques, strictures, and a crepe-paper–like appearance, although the esophagus is essentially normal in at least 20% of patients (**Fig. 1**A).[3]

MICROSCOPIC FEATURES AND DIAGNOSIS

Eosinophilic esophagitis can affect any level of the esophagus and is a disease with a patchy distribution, necessitating multiple tissue samples to establish a diagnosis.[4,5] Endoscopists are encouraged to obtain 2 to 4 tissue samples from the proximal and distal esophagus when eosinophilic esophagitis is suspected, to increase the likelihood of including diagnostic tissue.[6] Mucosal biopsies show eosinophil-rich inflammatory infiltrates, sometimes exceeding 250 eosinophils per 400× field.[7] Eosinophils are more concentrated in the superficial squamous epithelium. Degranulated eosinophils, clusters of greater than or equal to 4 eosinophils (eosinophil microabscesses), and striking intercellular edema are typical (see **Fig. 1**B, C). Lamina propria fibrosis is common and may contribute to dysphagia and stricture development in patients with eosinophilic esophagitis (see **Fig. 1**D).

Key Pathologic Features

- Luminally oriented eosinophil-rich inflammatory infiltrates present in multiple levels of the esophagus
- Eosinophil microabscesses, degranulatd eosinophils, surface scale crust of eosinophils and granules
- Intercellular edema
- Subepithelial fibrosis