

## **A CLINICAL CASE REVIEW OF A PATIENT WITH HEARTBURN AND DYSPHAGIA**

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### Case Presentation:

A 34-year-old male presented to the gastroenterology clinic with complaints of persistent heartburn and intermittent dysphagia lasting over 6 months. His symptoms were initially managed with over-the-counter antacids, which provided minimal relief. He was then prescribed proton pump inhibitors (PPIs), but his symptoms did not improve despite high-dose therapy. He reported that solid foods, particularly bread and meat, occasionally “got stuck” in his chest and required water to dislodge. He denied weight loss, vomiting, or hematemesis but experienced discomfort during meals.

### Main symptoms:

The patient’s symptoms of heartburn and dysphagia are often seen in a variety of gastrointestinal conditions, but when present together, they suggest the possibility of gastroesophageal reflux disease (GERD) or eosinophilic esophagitis (EoE). The hallmark of heartburn is a burning sensation behind the sternum, typically associated with acid reflux from the stomach into the esophagus. Dysphagia, or difficulty swallowing, can range from mild discomfort to the sensation of food “sticking” in the throat or chest. In this case, the patient specifically noted the sensation with solid foods.

These symptoms can be further complicated by dyspepsia, a term that refers to discomfort or pain in the upper abdomen, often linked to indigestion, bloating, or early satiety. These three symptoms (heartburn, dysphagia, and dyspepsia) can overlap in several conditions, including GERD, peptic ulcers, and more rare but serious conditions like EoE. Understanding the underlying cause of these symptoms is critical, as treatment strategies differ significantly.

### Discussion:

EoE is a chronic, immune-mediated disease of the esophagus that presents with symptoms such as dysphagia, food impaction, and refractory heartburn. It is often misdiagnosed as GERD, especially in patients who do not respond to PPI therapy. Key

diagnostic findings include the presence of esophageal eosinophilia and endoscopic features such as rings, furrows, white plaques, and strictures.

#### History and Examination:

The patient had no significant past medical history and no family history of esophageal or gastrointestinal disorders. There were no findings on physical examination. A review of systems was negative for respiratory symptoms such as cough or wheezing.

#### Initial Diagnostic Workup:

A trial of optimized PPI therapy was continued, but given his persistent symptoms, an upper endoscopy (esophagogastroduodenoscopy, or EGD) was performed. Endoscopy revealed concentric rings and furrowing in the esophagus, suggestive of eosinophilic esophagitis (EoE). Biopsies were taken from the proximal and distal esophagus.

#### Pathology Results:

Histologic examination confirmed the diagnosis of EoE, showing greater than 15 eosinophils per high-power field in multiple esophageal biopsy samples. No Barrett's esophagus or malignancy was detected.

#### Differential Diagnosis:

The differential diagnosis for persistent dysphagia and heartburn includes:

- Gastroesophageal reflux disease (GERD)
- Eosinophilic esophagitis (EoE)
- Achalasia
- Esophageal stricture or malignancy
- Schatzki ring

#### Management:

The management of EoE involves a combination of dietary, pharmacologic, and endoscopic interventions:

##### 1. Dietary Modifications:

- Six-Food Elimination Diet (SFED): Excluding common allergens (milk, wheat, eggs, soy, nuts, and seafood).
- Elemental diets or targeted elimination based on allergy testing can also be considered.

##### 2. Pharmacologic Therapy:

- Topical corticosteroids (e.g., fluticasone or budesonide) to reduce esophageal inflammation.
- Continued use of PPIs may also benefit some patients by reducing acid exposure.

##### 3. Endoscopic Management:

- In cases of significant strictures or food impaction, esophageal dilation may be required to improve swallowing and reduce symptoms.

##### 4. Long-term Monitoring:

- Regular follow-up is needed to assess symptom control, ensure dietary adherence, and repeat endoscopy if symptoms recur.

**Conclusion:**

This case emphasizes the need to consider EoE in patients with persistent dysphagia and heartburn refractory to PPI therapy. Early diagnosis and management are crucial to prevent complications such as esophageal stricture and long-term impairment of quality of life.

**References:**

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