

Epiphrenic Diverticulum: A Case Report

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Abstract

A 64-year-old man was referred for EGD for dysphagia. A chest CT showed middle and lower esophageal wall thickening and distension with air and fluid levels. EGD revealed moderately dilated esophagus with stasis esophagitis. A diverticulum with a large opening and no stigmata of recent bleeding was found several centimeters proximal to the lower esophageal sphincter (LES). Moderate resistance was felt during advancement into the stomach. Dilation was performed using through-the-scope balloon dilation to a maximum balloon size of 18 mm without overt effect. Motility study showed intermittent simultaneous contractions and hypertensive LES with incomplete relaxation, suggestive of evolving type 3 achalasia. We prescribed fluconazole and preprandial sublingual nitroglycerin for dysphagia. Two months following endoscopy the patient reports improved dysphagia and weight gain. Epiphrenic diverticula are pulsion diverticula that form as a result of elevated intraluminal esophageal pressure due to primary motility disorders such as achalasia, diffuse esophageal spasm, and nutcracker esophagus. Diverticula can present with symptoms that can mimic more common diseases (e.g., GERD, gastroparesis, or eosinophilic esophagitis) or be asymptomatic in as many as 40% of patients. Undiagnosed, epiphrenic diverticula can lead to or further worsen regurgitation, gastrointestinal bleeding, aspiration, and cancer.

Keywords: Epiphrenic diverticulum; Endoscopy; Achalasia; Motility disorders

Introduction

Esophageal diverticula are classified according to their location: proximal (pharyngoesophageal or Zenker), middle, and distal (epiphrenic). Middle and distal diverticulae are subdivided as pulsion and traction types. Traction types arise from chronic mediastinal diseases causing scar formation [1]. Pulsion diverticula occur with a distal esophageal motility disorder, forming an epiphrenic diverticulum [1]. The majority of patients are asymptomatic, or may present with severe dysphagia, gastroesophageal reflux disease, weight loss, cardiac arrhythmias, halitosis, or recurrent episodes of aspiration pneumonia [2,3]. We present a case of epiphrenic diverticulum that highlights the importance of high clinical suspicion and the difficulty diagnosing this disease.

Case Report

A 64-year-old man with 10-pound weight loss over a 2 month period was referred for EGD for further work up for dysphagia after a chest CT found middle and lower esophageal wall thickening and distension with air and fluid levels at the lower third of the esophagus (Figure 1). EGD revealed moderately dilated esophagus with stasis esophagitis. A diverticulum with a large opening and no stigmata of recent bleeding was found in the lower third of the esophagus, several cm's proximal to the lower esophageal sphincter (LES) area (Figures 2-4). Moderate resistance was felt during endoscope advancement into the stomach at the level of the LES. Dilation was performed using a through-the-scope

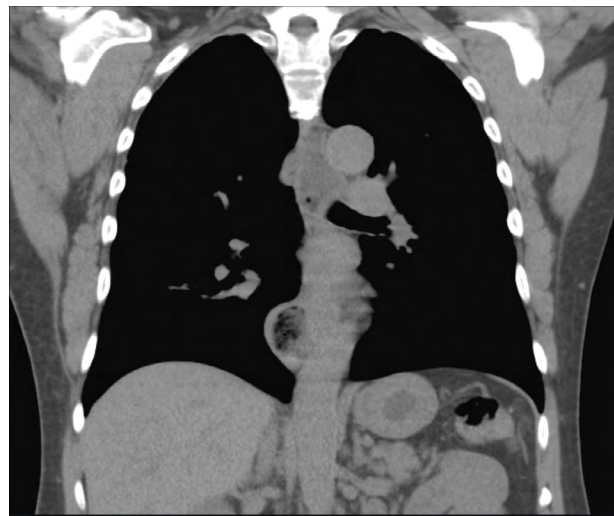


Figure 1: Coronal view of the non-contrast chest CT scan significant for esophageal wall thickening and diverticulum with air-fluid levels in distal esophagus.

balloon dilator to a maximum balloon size of 18 mm without overt effect. Motility study showed intermittent simultaneous contractions and hypertensive LES with incomplete relaxation suggestive of evolving type 3 achalasia (Figure 5). We prescribed fluconazole and preprandial sublingual

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Figure 2: Endoscopic image of the esophageal diverticulum.



Figure 3: Endoscopic image of the hypertonic lower esophageal sphincter ("Bird beak").



Figure 4: Endoscopic image of normal gastric cardia in retroflexed view.

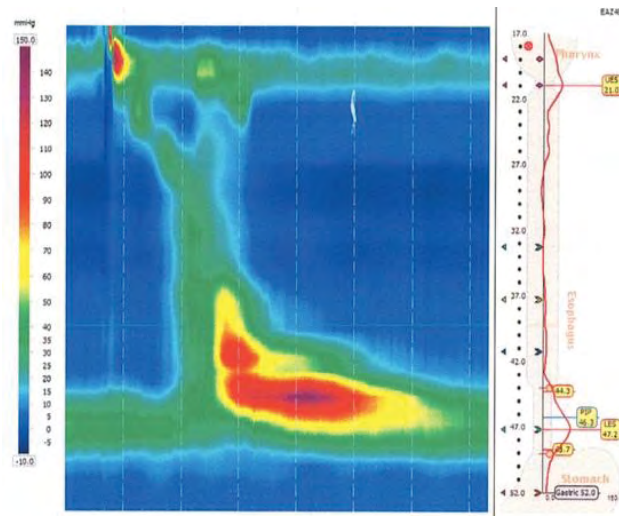


Figure 5: Composite of 10 swallows illustrating intermittent spastic contractions and hypertensive LES with incomplete relaxation (IRP=37.4) suggestive of evolving type 3 achalasia.

nitroglycerin as needed for dysphagia. Two months following endoscopy the patient reports improved dysphagia and weight gain.

Conclusion

Epiphrenic diverticula are pulsion diverticula that have formed as a result of elevated intramucosal esophageal pressure due to primary esophageal dysmotility disorders such as achalasia, diffuse esophageal spasm, and nut cracker esophagus [4]. Diverticula can present with variety of symptoms that can mimic more common diseases (e.g., GERD, gastroparesis, or eosinophilic esophagitis) or may be asymptomatic in as many as 40% of patients [3]. Undiagnosed, epiphrenic diverticula can lead to or further worsen regurgitation, gastrointestinal bleeding, aspiration, and cancer [2,3].

References

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