A Case of Epiphrenic Esophageal Diverticulum and Concurrent Mid-Esophageal Diverticulum

Kevin Carroll II MD, Carlesha Blades MD, Brian Fallon MD, Neha Reddy MD, Vijay Singh MD

BACKGROUND

Esophageal diverticulum are very uncommon lesions which are classified based on their locations, pathology, being pulsion or traction and morphology being a true or false diverticulum. Symptoms usually present as dysphagia, regurgitation, heartburn, halitosis and vomiting and patients are usually symptomatic 15-20% of the time. These symptoms are similar to many gastrointestinal disorders therefore making the diagnosis difficult. Contrast studies remain the investigation of choice and the estimated incidence of EPD is about 1:500,000 per year. Diagnostic evaluation consists of a barium swallow, esophagogastroduodenoscopy (EGD) and manometry. This report presents a patient who was diagnosed with both diverticulum, was symptomatic and underwent operative repair.

CASE DESCRIPTION

82-year-old female with a past medical history of esophageal reflux and a known history of a hiatal hernia diagnosed at a routine screening endoscopy. She also is a current smoker, 120 pack years. She presented with a three-week complaint of dysphagia but has been feeling a sensation of early satiety, food regurgitation and chest discomfort for many years, she was only able to tolerate a full liquid diet. Outpatient Esophagram revealed a large hiatal hernia, 3cm in size, moderately enlarged mid esophageal diverticulum filled with debris, an epiphrenic diverticulum, GERD as seen in Figure 1. Patient ultimately refused manometry.

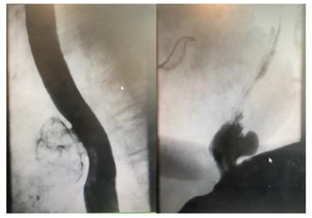


Figure 1: Esophagram showing Mid-Esophageal and Epiphrenic Diverticulum

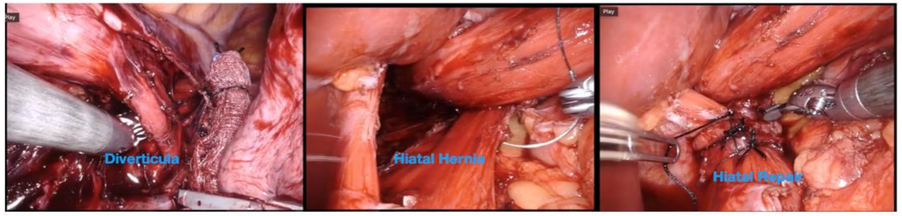


Figure 2: Robotic Repair of Mid-Esophageal Diverticulum and Hiatal Hernia Repair

TREATMENT PLAN

The plan was to proceed with a robotic assisted thoraco-abdominal esophageal diverticulectomy, epiphrenic diverticulopexy, Heller myotomy, hiatal hernia repair and Dor Fundoplication. The hiatal hernia and epiphrenic diverticulum was addressed through an abdominal approach with the diverticulectomy through a right thoracic approach as seen in Figure 2. Postoperative esophagram revealed no evidence of leak as seen in Figure 3. She was discharged on post operative day five.



Figure 3: Postoperative Esophagram

CONCLUSION

These rare entities are very uncommon. Reviewing the literature, there does not appear to be any documented reports of a patient with both types of diverticulum, this patients occurrence is extremely unique.

Upon reviewing the patients history, there was no obvious etiology as to why she developed either of the diverticulum outside of her long history of reflux, but she notably had chronic use of tobacco which raises further questions, has there been an increase in esophageal diverticulum secondary to tobacco use?

This question may allow opportunities for further study.