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Case Report

Esophageal diverticulum: a case report

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ABSTRACT

Esophagic diverticulum's are a rare entity. The prevalence in the world population is reported to be less than 1%. They are generally diagnosed incidentally, have a higher peak of prevalence in the fifth decade of life, affecting men and women equally. The most common esophageal diverticula are epiphrenic and the main symptom is usually dysphagia. A case of a 74-year-old female with diagnosis of epiphrenic esophageal diverticulum is reported, which is treated with conservative management. The objective of this study was to describe a clinical case of esophageal diverticulum, as well as its etiology, clinical presentation, and therapeutic conduct. The screening of these patients must be focused on what the literature indicates, symptomatic patients with long-term evolution, the treatment will be surgical and with minimally invasive techniques so clinical evolution will be more favorable, reducing possible complications.

Keywords: Endoscopy, Esophageal diverticulum, Esophagus

INTRODUCTION

Esophageal body diverticula are a rare entity. The prevalence in the world population is reported to be less than 1%.[1,2] They are generally diagnosed incidentally, have a higher peak of prevalence in the fifth decade of life, affecting men and women equally.[3,4]

The most common esophageal diverticula are epiphrenic in 15% and right-sided in approximately 70%.[4] The cardinal symptom in those patients with clinical manifestations is dysphagia.[2,3,5]

Diverticula found in the middle and distal portion of the esophagus usually cause more symptoms.[1,6]

Pathophysiology

They are generally classified into three aspects depending on their location, histology and etiology.[2,4,5] Location was in the proximal part (pharyngoesophageal), middle (mid-esophageal) or distal (epiphrenic).[2,4-6] Histologically, they can be classified based on the affected layers, they are divided into true or false.[4,5]

True diverticula are those in which all layers of the esophagus are affected, on the other hand, false diverticula only cover the mucosa or submucosa.[4-6] Finally based on its etiology, whether by traction or drive.[2-7] Diverticula generated by traction consist of those where there is an external force to the wall of the esophagus.[2,4-7] Inpulsion

diverticula originate because intraluminal pressure within the esophagus increases, causing an area of weakness in the wall.[4-7]

Symptoms

Clinical manifestations vary according to each person, most of the patients are asymptomatic in a percentage of 30-40%.[1-3] The symptoms are directly proportional to the size of the diverticulum as well as its location.[3] Diverticula found in the middle and distal portion of the esophagus usually cause more symptoms.[6] It is also reported that diverticula mayor than 5 cm cause symptoms.[3] At first the diagnosis is not evident because there are nonspecific symptoms.[1,3,4] The main symptom is dysphagia, associated with other clinical manifestations as well as halitosis, regurgitation, pneumonia, cough and weightloss.[1,3,4,6] On certain occasions they can be related to other associations, the most frequent are; achalasia, nonspecific motor disorders, segmental spasms and nutcracker esophagus, and this patients will present different types of clinical symptoms such as regurgitation and postprandial pain.[3,5,6]

Diagnosis

The initial imaging method for diagnosis is endoscopy.[3,4] This study is accessible and has the advantage of obtaining an adequate image and location of the diverticula.[3,4,5] The study of choice is an esophagram, it is possible to confirm the imaging diagnosis and obtain exact measurements of the diverticulum to plan the surgical intervention.[3,5] It can be complemented with manometry to rule out associated achalasia as well as to assess the proximal extension of the esophageal myotomy.[4-6]

Treatment

The international literature mark that asymptomatic patients do not require specific treatment.[1,7] Although it has been described that proximal and middle diverticula generally have no clinical manifestations, conservative treatment is chosen.[1,3,8] In the case of distal diverticula (epiphrenic), it has been observed that patients present symptoms, so in this cases, surgical treatment is suggested.[1,3,7] Among the therapeutic interventions, a diverticulopexy can be considered, that is, fixing the diverticulum towards the vertebral body and diverticulotomy with or without myotomy.[4,5] It should be considered that left side diverticula are difficult to resect due to their proximity to the aortic arch.[3] Epiphrenic diverticula less than 2 cm does not provoke symptoms so they are not usually indicated for resection, the most of them are less than 6 cm.[3,8] Surgical treatment has a high success rate that goes between 74 to 100%, with a mortality of 3% and morbidity of 15%.[5,7] The laparoscopic approach is currently the treatment of choice.[3-5] Surgical treatment depending on the approach can be either thoracic or abdominal intervention.[3-6] The overall mortality of epiphrenic diverticulum surgery is reported to be 5% with morbidity of up to 20%.[5]

CASE REPORT

A 74-year-old female with no personal medical history. She was referred from her health center to the endoscopy service of the General Hospital of Mazatlán because she reported as an initial symptom abdominal pain located in the epigastrium of 20 years of evolution, adding regurgitation, dysphagia to solids and liquids in recent months occasionally. An endoscopy was performed, which revealed a diverticulum in the distal third, close to the gastroesophageal junction, followed by a barium esophagram, which showed an epiphrenic diverticulum measuring 2.13 cm by 1.67 cm. The hospital does not have a pressure gauge and the patient does not have the resources to carry it out. Surgical treatment was offered without the possibility of it due to lack of patient consent, so conservative management was decided.

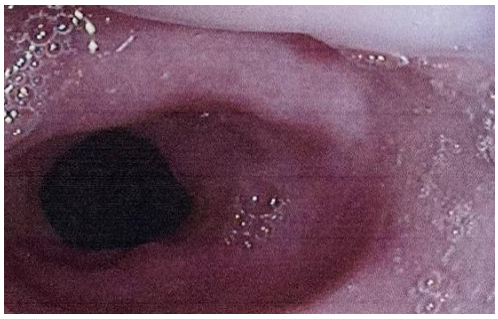

Figure 1: Esophageal tract with competent hiatus by endoscopy.

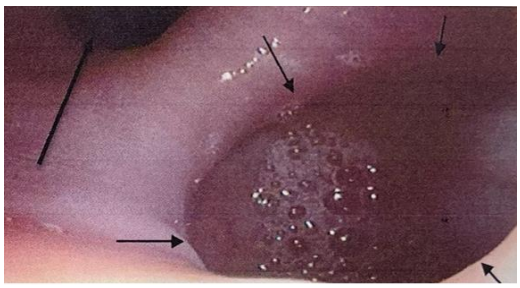

Figure 2: Esophageal tract (large arrow). Diverticulum close to the gastroesophageal junction (small arrows).

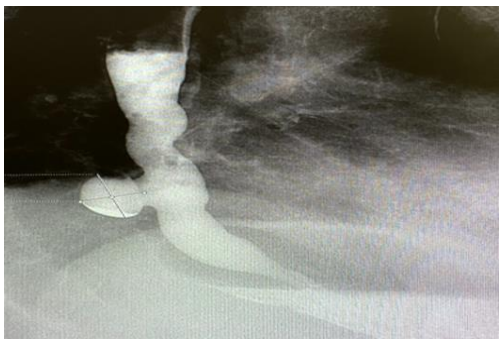

Figure 3: Barium esophagram, a distal diverticulum measuring 2.13 cm by 1.67 cm is observed.

DISCUSSION

Esophageal diverticula is a rare clinical entity, usually diagnosed incidentally or until they become symptomatic.[1,2] The vast majority of patients are asymptomatic.[1,6] Diverticula found in the middle and distal portion of the esophagus usually cause more symptoms.[1-3,6] The problem is that the diagnosis is delayed since the symptoms are often confused with gastoesophageal relfux.[1-3,6] A complementary esophagram is enough to confirm the diagnosis. Surgical treatment is indicated in patients with symptoms.[1,3] The recommended surgical intervention is diverticulectomy with esophageal myotomy with or without fundoplication.[3,4] The conventional open approach through thoracotomy has been displaced by minimally invasive techniques due to its high post-surgical morbidity (33-45%).[3,4] The most recommended intervention in epiphrenic diverticula is diverticulectomy with concurrent myotomy, and depending on echa case, with or without partial fundoplication.[4,6] Recurrence ranges from 10-24% in patients who underwent surgery without myotomy.[4] Because of this, it is of great importance to personalize the treatment of each patient. In our patient, it would have been very useful to perform manometry to confirm motor disorder. The surgical option was considered appropriate for her due to the long-standing symptoms. However, we are limited with its correct therapeutic management due to lack of recourse as well as denial of the patient.

CONCLUSION

Due to the low prevalence of this pathology, its diagnosis requires high clinical suspicion, as well as support from clinical studies. Although is very important to consider this pathology in patients with reflux symptoms. The limitation of these clinical pathology in health centers or second-level hospitals makes their diagnosis and timely treatment difficult, also makes a delay. On the diagnosis, so the screening of these patients must be focused on what the literature indicates, symptomatic patients with long-term evolution should be candidates for a surgical intervention with the respective preoperative studies. Furthermore, the wide range of treatment offers us various opportunities for the patient, not forgetting that once the patient has symptoms, the treatment will be surgical and with some minimally invasive techniques the clinical evolution will be more favorable, reducing possible complications. In our patient the prognosis would have improved as well as her quality of life if she had accepted surgical intervention.

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