

G Chir Vol. 30 - n. 11/12 - pp. 479-481
 Novembre-Dicembre 2009

Giant mid-esophageal diverticulum. Conservative treatment of postoperative leakage

S. DALLATOMASINA, M. CASACCIA, L. CHESSA, J. SERRANO, I. NARDI,
 B. TROILO, M. MIGGINO, U. VALENTE

SUMMARY: Giant mid-esophageal diverticulum. Conservative treatment of postoperative leakage.

S. DALLATOMASINA, M. CASACCIA, L. CHESSA, J. SERRANO,
 I. NARDI, B. TROILO, M. MIGGINO, U. VALENTE

Mid-esophageal diverticula are rare entities. Only symptomatic patients usually receive surgical treatment. Esophageal leakae is one of the most common complications after these procedures. Though in literature, operative management is the preferred treatment for esophageal fistula, conservative approach is described in case of small leaks.

We report a case of an operated giant mid-esophageal diverticulum complicated with an esophageal fistula. The patient underwent a surgical treatment and recovered completely.

RIASSUNTO: Resezione di un voluminoso diverticolo esofageo medio-toracico con trattamento conservativo della deiscenza post-operatoria.

S. DALLATOMASINA, M. CASACCIA, L. CHESSA, J. SERRANO,
 I. NARDI, B. TROILO, M. MIGGINO, U. VALENTE

I diverticoli esofagei medio-toracici sono di riscontro non frequente. Generalmente il trattamento chirurgico è riservato ai soli pazienti sintomatici. La fistola esofagea è una delle complicanze postoperatorie più comuni. Sebbene in letteratura l'approccio chirurgico sia preferito per risolvere tali complicanze, il trattamento conservativo è descritto nel caso di deiscenze non gravi. Descriviamo il caso di un voluminoso diverticolo esofageo medio-toracico operato e complicato da una fistola esofagea post-operatoria. Il paziente è stato trattato con approccio conservativo fino a completa guarigione.

KEY WORDS: Mid-esophageal diverticulum - Esophageal leakage - Video-assisted thoracic surgery (VATS) - Diverticulectomy.
 Diverticolo medio-esofageo - Deiscenza esofagea - Chirurgia toracica video-assistita (VATS) - Diverticulectomia.

Introduction

Mid-esophageal diverticula are uncommon and the majority of patients are asymptomatic (1). Dysphagia, regurgitation, aspiration pneumonia, weight loss and reflux disease are the most common symptoms. Only symptomatic patients should receive surgical treatment, because of the risk of aspiration and pulmonary complications. If an esophageal motility dysfunction is associated, simple diverticulectomy should be combined with an extramucosal myotomy (2). Morbidity can be significant with these procedures and esophageal leakage represents the most common complication (3).

We report the case of a patient with a giant left mid-

esophageal diverticulum surgically resected, who developed suture leakage managed conservatively with successful outcome.

Case report

A 66-year-old man presented with gastro-esophageal reflux disease, cough accesses, retrosternal pain and a recent episode of aspiration pneumonia. A barium swallow (Fig. 1) and a chest computed tomography (CT) (Fig. 2) revealed a giant left mid-esophageal diverticulum of 5x7 cm filled with food. Endoscopy showed the large diverticulum at 27 cm from the incisors. Gastro-esophageal manometry was performed, but it was not diagnostic because the endoscope could not be advanced beyond the diverticulum.

The patient underwent a right video-assisted thoracic surgery (VATS). Owing to tight adhesions of the diverticulum to the surrounding tissues, the procedure was completed through a right posterior thoracotomy incision. A stapled diverticulectomy with closure of the overlying esophageal muscle layer associated with a long extramucosal myotomy were performed.

On the first post-operative day a new thoracotomy was necessary because of a bleeding from an intercostal artery. After a week, oral feeding was given but the patient developed hyperpyrexia. The

University of Genoa
 St. Martino Hospital
 General and Transplant Surgery Department,
 Advanced Laparoscopy Unit

© Copyright 2009, CIC Edizioni Internazionali, Roma

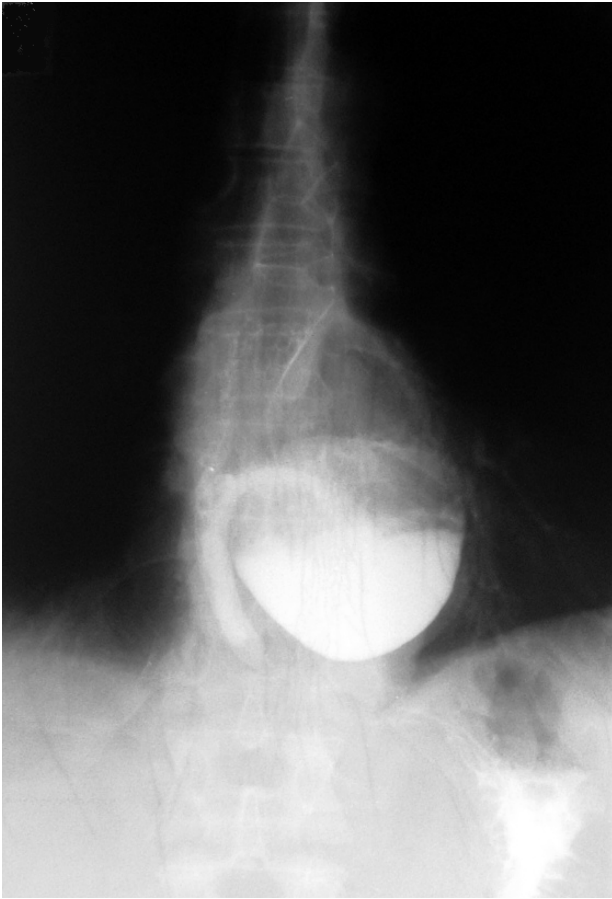


Fig. 1 - Anteroposterior view from barium esophagogram demonstrating a mid-esophageal diverticulum projecting to the patient's left side.

CT with water-soluble contrast swallow revealed the presence of a small esophageal leakage in the posterior mediastinum, at the level of the suture line.

Drainage of the abscess and placement of a drain in the mediastinum were performed through a left thoracotomy. In consideration of the small entity of the leakage, a conservative management of the complication was decided. A naso-gastric tube was placed below the leakage under radiological control and a moderate suction was applied to it. To assure nutritional support, a percutaneous endoscopic jejunostomy feeding tube was inserted.

The patient's clinical conditions improved daily. CT with water-soluble contrast was performed monthly to evaluate the evolution of the leakage. After two months the CT showed a complete recovery of the local condition without outspread of the water-soluble contrast. Oral feeding was reintroduced and the patient was able to eat without complications.

He was discharged after three months, never presenting symptoms again.

Discussion

Giant mid-esophageal diverticula are an uncommon lesion often asymptomatic. In the past, operative treatment was favoured for symptomatic patients only, although



Fig. 2 - Chest CT showing a giant left mid-esophageal diverticulum of 5x7 cm filled with ingestis. CT, computed tomography.

Some authors have advocated operative intervention on all patients with thoracic diverticula regardless of symptoms (4). Nevertheless, morbidity can be significant with these complex procedures. Esophageal leakage is the most common complication described in literature (3). This condition can be life-threatening for the patient.

In our case the patient underwent two consecutive surgical procedures before detection of the fistula, he was malnourished and he had a mediastinum infection. In consideration of the patient's poor clinical conditions and the small entity of the leakage, we decided for a conservative approach of this complication. A moderate suction to the naso-gastric tube is not invasive and it has few infectious complications. It was well tolerated by the patient all along the postoperative course and the nutritional status was supported by the jejunostomy feeding tube, in order to maintain bowel motility also and to avoid infections.

The patient recovered completely and he did not present further problems of dysphagia and aspiration.

Though an aggressive approach towards post-operative leakages is mostly described in literature, from reconstructive to radical surgery (3, 5), a conservative approach should be taken into consideration if the esophageal lesion is circumscribed, it is not in the abdominal cavity, and it is not associated to simultaneous obstructive esophageal disease (6).

Our experience suggested that a conservative treatment for a small esophageal leakage is a viable option and it can lead to a complete healing when a surgical approach is deemed at high risk for the patient.

References

1. do Nascimento FA, Lemme EM, Costa MM. Esophageal diverticula: pathogenesis, clinical aspects, and natural history. *Dysphagia* 2006;21:198-205.
 2. Svane S. Giant midesophageal pulsion diverticulum: a report of two operated cases. *Ann Thorac Surg* 2001;71:1692-4.
 3. Fernando HC, Luketich JD, Samphire J, et al. Minimally invasive operation for esophageal diverticula. *Ann Thorac Surg*. 2005;80:2076-80.
 4. Altorki NK, Sunagawa M, Skinner DB. Thoracic esophageal diverticula. Why is operation necessary? *J Thorac Cardiovasc Surg* 1993;105:260-4.
 5. Richardson JD. Management of esophageal perforations: the value of aggressive surgical treatment. *Am J Surg* 2005;190:161-5.
 6. Altorjay A, Kiss J, Voros A, Bohak A. Nonoperative management of esophageal perforations. Is it justified? *Ann Surg* 1997;225:415-21.
-