Journal of Surgery
2022; 10(5): 187-189
http://www.sciencepublishinggroup.com/j/js
doi: 10.11648/j.js.20221005.19
ISSN: 2330-0914 (Print); ISSN: 2330-0930 (Online)

Difficulties of Surgery in the Management of an Inflammatory Zenker's Diverticula: Report of an Observation

Bangoura Mohamed Saliou[1, 2, *], Bouraoui Ridjial Hadar[3], Toure Alpha Oumar[3], Yattara Abdoulaye[3], Seck Mamadou[3], Cisse Mamadou[3], Soumaoro Labilé Togba[1, 2], Toure Aboubacar[1, 2], Dieng Madieng[3]

[1]Department of General Surgery, Ignace Deen National Hospital, University Hospital of Conakry, Conakry, Guinea

[2]Faculty of Health Sciences and Techniques, Gamal Abdel Nasser University of Conakry, Conakry, Guinea

[3]Department of General Surgery, Aristide Le Dantec Hospital, Dakar, Senegal

Email address:

medsaliou@yahoo.fr (Bangoura Mohamed Saliou)

[*]Corresponding author

To cite this article:

Bangoura Mohamed Saliou, Bouraoui Ridjial Hadar, Toure Alpha Oumar, Yattara Abdoulaye, Seck Mamadou, Cisse Mamadou, Soumaoro Labilé Togba, Toure Aboubacar, Dieng Madieng. Difficulties of Surgery in the Management of an Inflammatory Zenker's Diverticula: Report of an Observation. *Journal of Surgery*. Vol. 10, No. 5, 2022, pp. 187-189. doi: 10.11648/j.js.20221005.19

Received: September 16, 2022; **Accepted**: October 18, 2022; **Published**: October 28, 2022

Abstract: *Introduction:* Zenker's diverticulum is a rare pathological entity characterized as is a herniation of the pharyngoesophageal mucosa by impulse, developed through a dehiscence of the muscular wall of the pharyngoesophageal junction located above the upper esophageal sphincter. The mainly digestive symptomatology is a high dysphagia with regurgitation. For patients with symptoms, surgery remains the only treatment option. The objective of this work was to highlight the difficulties of surgery in the management of an inflammatory zenker's diverticulum managed in the general surgery department of the Aristide Le Dantec hospital. *Observation:* herein we reported the observation of 61-year-old hypertensive patient known to be on treatement, dialyzed for 5 years for chronic end-stage renal faillure, referred from nephrology for the management of an inflamed zenker s diverticulum. She had performed a cervical tomodensitometry and a barium enema which come back in favor of a zenker's diverticulum, she benefited from a suture of the neck of the diverticulum and the aftemath was enamelled with complications of pneumopathy. Conclusion: Zenker's diverticulum is a rare pathology occurring in the elderly. The diagnosis is suggested by certain clinical signs such as regurgitation and dysphagia; the definitive treatment remains surgery.

Keywords: Difficulties Surgery, Zenker's, Inflammatory

1. Introduction

Zenker's hypopharyngeal diverticulum is a rare pathology [1, 2]. It is a herniation of the pharyngoesophageal mucosa by impulse, developed through a dehiscence of the muscular wall of the pharyngoesophageal junction located above the upper esophageal sphincter [3-6]. It is an acquired lesion, mainly affecting adults over the age of 65; however, there are rare cases observed in children [7].

The mainly digestive symptomatology is characterized by high dysphagia with regurgitation, even if there are sometimes bronchopulmonary manifestations complicating the pathology [3, 8, 9]. The radiological examinations which make it possible to make the diagnosis with certainty remain the hypopharyngeal and esophageal transit, and the scanner with markup. The hypopharyngeal and esophageal transit shows an additional paramedian image on the lateral X-rays [3, 10, 11]. Surgical treatment of diverticula concerns only symptomatic diverticula, and is performed either openly or endoscopically. We aimed to report a case of Zenker's hypopharyngeal diverticulum observed in the general surgery department of the Aristide Le Dantec hospital (Senegal).

2. Patient and Observation

We received Mrs. F. N., 61 years old, hypertensive for 10 years on the perindopril-amlodipine 10 mg/10 mg combination, chronic hemodialysis for 5 years for stage V chronic renal failure, 8th procedure 6th parent, 2 abortions, menopausal for 10 years and never operated. She was referred from the nephrology department of Le Dantec Hospital for treatment of a Zenker's diverticulum.

The interrogation found a high dysphagia to solid food, a productive hacking cough and a false passage at each meal.

The general examination found an alteration in general condition (WHO 3), clear consciousness with a Glasgow score of 15/15, slight folds of dehydration without signs of undernutrition. The constants were as follows: blood pressure at 15/9 cmHg, pulse at 112 beats/min, temperature at 37.2°C, and respiratory rate at 24 breaths/min.

Cervical examination noted a soft right laterocervical tumefaction that did not move with swallowing, which was painful. Examination of other devices was unremarkable.

The complete blood count noted anemia at 9.2 g/dl, neutrophilic leukocytosis at 11,000/mm, an increase in CRP at 160 mg/l. Prothrombin count (PT) was 96% and activated partial thromboplastin time (APT) was 34.9 seconds.

The esophagogastroduodenal fibroscopy had noted an esophageal diverticulum 20 cm from the dental arches, the bottom of which was lined with ulcerated and hemorrhagic lesions.

The esophagogastroduodenal transit objectified a repression of the cervical portion of the esophagus by a voluminous image of heterogeneous addition, staged from C3 to C7 whose upper pole was located at the level of the pharyngo-esophageal junction (figure 1). Cervical computed tomography showed a diverticulum with a more or less narrow neck and a laterothyroid fundus.

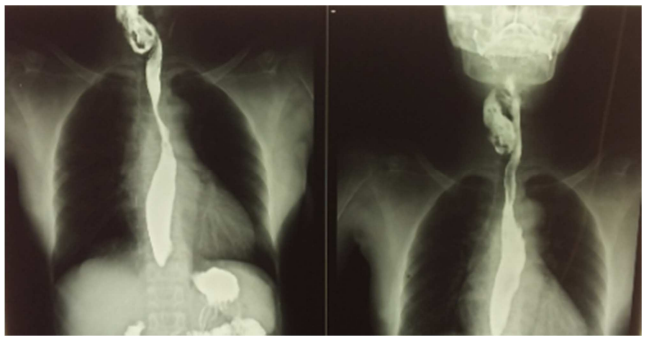

Figure 1. *Opacification of diverticulum and esophagus.*

Exploration revealed an inflammatory esophageal diverticulum, the dissection of which led to its opening. The neck was identified but dissection of the entire diverticulum was impossible given the strong inflammatory adhesions, particularly on its posterior surface. We performed the closure of the opening communicating with the esophagus by a suture in the separate points at PDS 4/0, leaving its posterior wall in place (figure 2).

She received two postoperative dialysis sessions on D2 and D5. The consequences were marked on D7 by an inhalation pneumopathy which was managed by antibiotic therapy.

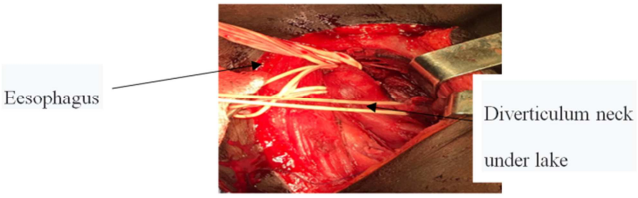

Figure 2. *Skeletonization of the diverticulum.*

3. Discussion

Zenker's diverticulum is a rare pathology with a prevalence of 0.01 to 0.1% of the world population [6]. It accounts for 1% of esophageal diseases. Pharyngo-oesophageal diverticula are the most common form, 54% to 82% according to the authors [5]. It affects patients after 50 years with a peak between 60 and 80 years [7, 8]. The sex ratio varies from 2.6 to 3.4 and is observed almost exclusively in individuals of white races. Contrary to the literature, our patient was female, black, 61 years old. Most authors have reported digestive symptoms, marked above all by dysphagia and regurgitation which are found in 70% of cases [2, 12, 13]. Respiratory manifestations are less frequent and occur in 17 to 60% of cases [4].

The clinical examination is most often poor, sometimes revealing on inspection a lateral swelling at the level of the lower 1/3 of the neck in extension. Palpation may reveal a pseudo-fluctuating soft left cervical swelling, which was not found in our patient. The clinical examination found a painful soft mass in the right laterocervical area, contrary to most of the publications where it is found in the left laterocervical [6]. Surgical treatment of diverticula concerns only symptomatic diverticula, and is performed either openly or endoscopically. Surgical techniques consist of myotomy alone for small diverticula (less than 4 cm) or combined with diverticulectomy for large diverticula or diverticulopexy [5, 12, 14, 15]. The diverticulopexie does not require the opening of the mucuso, eliminating the risk of fistula and stenosis, but includes the myotomie of the crico-pharyngeal. The pexy must be perfomed as high as possible, because the diverticulum is down [12].

Contrary to all open surgery techniques classically described, we could not perform the diverticulectomy with the myotomy of the crico-oesophageal, nor the diverticulopexy given the inflammatory nature, we decided to close the neck.

4. Conclusion

Pharyngoesophageal diverticulum (Zenker) is a rare pathology occurring in the elderly. The diagnosis is suggested by certain clinical signs such as regurgitation and dysphagia; the definitive treatment remains surgery performed either openly or endoscopically and consists of myotomy alone for small diverticula (less than 4 cm) or combined with diverticulectomy for large diverticula or diverticulopexy.

References

[1] BALTHAZAR EJ. Esophagobronchial fistula secondary to ruptured traction diverticulum. Gastrointest Radiol 1977; 2 (2): 119-121.

[2] BREIL P. Surgical treatment of pharyngo-oesophageal diverticula. EMC Tech Chir App Dig, Masson 2014; 40-185: 2-5.

[3] BOUCHER S, BREHERET R, LACCOURREYE L. Importance of undernutrition and associated pathologies in the management of Zenker's diverticulum. Ann Franc ORL Pathol Cervic 2015, 132 (3): 118 -122.

[4] CASANOVA A. Surgical treatment of Zenker's diverticula: short and long term results about 70 cases. Thesis of human medicine and pathology 2015; 3007: 13-30.

[5] DHOUIB H, MNEJJA M, SELLAMI M, KALLEL S. CHAKROUN AD, GHORBEL A. Zenker's pharyngo-oesophageal diverticulum about five cases. Jim Sfax 2009, 17/18: 19-24.²BREIL P. Surgical treatment of pharyngo-oesophageal diverticula. EMC Tech Chir App Dig, Masson 2014; 40-185: 2-5.

[6] LEVARD H, BLAIN A, GAYET B. Esophageal diverticula. EMC Pneumology 2005; 6-048-C-20: 166-169.

[7] BRIGAND C, BAJCZ K, ELAMRANI H, DAN S, ROHR S, MEYER C. Treatment of Zenker's diverticulum by diverticulopexy. J Chir 2008; 145 (4): 341-345.

[8] GUTSCHOW CA, HAMOIR M, ROMBAUX P, OTTE JB, GONCETTE L, COLLARD JM. Management of pharyngoesophageal (Zenker's) diverticulum: which technique? Ann Thorac surg 2002; 74: 1677-1683.

[9] LEPORRIER J, SALAME E, GIGNOUX M, SEGOL P. Zenker's diverticulum: diverticulopexy versus diverticulectomy. Ann Chir 2001; 126 (1): 42-45.

[10] CASSIVI SD, DESCHAMPS C, NICHOLS FC 3RD, ALLEN MS, PAIROLERO PC. Diverticula of the esophagus. Surg Clin North Am 2005; 85 (3): 495-503.

[11] CHEN JR, MINGHANI HA, JAFARI A, CROURY OD, PERIE S, LACON J, GULY JL. The "Tide sign": its role in the diagnosis of Zenker's diverticulum and the evaluation of surgical results. Ann ORL Pathol Cervicofac 2013; 130 (6): 314-317.

[12] LERUT T, VAN RAEMDONCK D, GUELINCKX P, DOM R, GEBOES K. Zenker's diverticulum: Is a myotomy of the cricopharyngeus useful? How long should it be? Hepato-gastroenterol 1992; 39 (2): 127-131.

[13] MAKHLOUFI EL. Zenker's diverticulum: Pathophysiology and endoscopic treatment using a modified self-suturing forceps. Medical thesis, Geneva 2008; 10552: 29-3.

[14] SIDERIS L, CHEN LQ, FERRARO P, DURANCEAU AC. The treatment of Zenker's diverticula: a review. Semin Thorac Cardiovasc Surg 1999; 11 (4): 337-51.

[15] BIZZOTTO A, LACOPINI F, LANDI R, COSTAMAGNA G Zenker's diverticula: exploring treatment options Acta Otorhinolaryngol Ital 2013; 33 (4): 219-29.