

Bilobed Zenker's Diverticula

Neil Tanna, MD; Alpen A. Patel, MD; Lindsay S. Eisler, MD; George Goding, MD;
Robert Maisel, MD

A bilobed Zenker's diverticulum is an uncommon finding. Given the rarity of these bilobed pharyngeal pouches, their management can pose a clinical dilemma. We advocate transoral endoscopic division and stapling of the larger lobe as the management of choice for this clinical finding. We present 2 patients, each with a bilobed Zenker's diverticulum. To our knowledge, these 2 cases represent the first reported bilobed pharyngeal pouches treated successfully with division and stapling of only the larger lobe.

Key Words: bilobed Zenker's diverticulum, endoscopic stapling, pharyngeal pouch.

INTRODUCTION

Since its first description by Ludlow,¹ the origin and treatment of Zenker's diverticulum has generated much interest and debate. It is known that these pharyngeal pouches vary with regard to size, shape, number, and position.² Bilobed pharyngeal pouches have only been mentioned in the literature a handful of times, confirming the rarity of this finding. In 1954, Jesberg² described a double pharyngeal pouch with a single neck and a bilobed fundus. The second reported case, from Stafford and Frootko³ in 1987, described two separate sacs with two distinct necks. Later, in 1992, Meehan and Henein⁴ presented a bilobed pharyngeal pouch with two sacs and two lumens but a single intervening septum. In 2000, Izzat et al⁵ described the first endoscopic division and stapling of a bilobed pharyngeal pouch. In their report, both pouches were therapeutically stapled. Two patients with bilobed pharyngeal pouches are presented below. These are the first reported cases to be successfully treated with transoral endoscopic division and stapling of only the larger lobe.

CASE REPORTS

Case 1. An otherwise healthy 48-year-old man presented with an 18-month history of dysphagia, regurgitation of food, and halitosis. An examination of the head and neck, including fiberoptic laryngoscopy, yielded unremarkable findings. A barium swallow study showed a bilobed pharyngeal pouch with a larger pulsion diverticulum on the left (Fig 1).

With the patient under general anesthesia, a bivalve diverticuloscope was used to visualize the esophagus and bilobed pharyngeal pouch (Fig 2). The esophagus was confirmed with nasogastric tube placement. An endoscopic gastrointestinal stapler was used to transect the common wall between the larger sac of the diverticulum and the esophagus, in essence performing cricopharyngeal myotomy.

The procedure was performed with ease, and the patient tolerated it without complications. He was

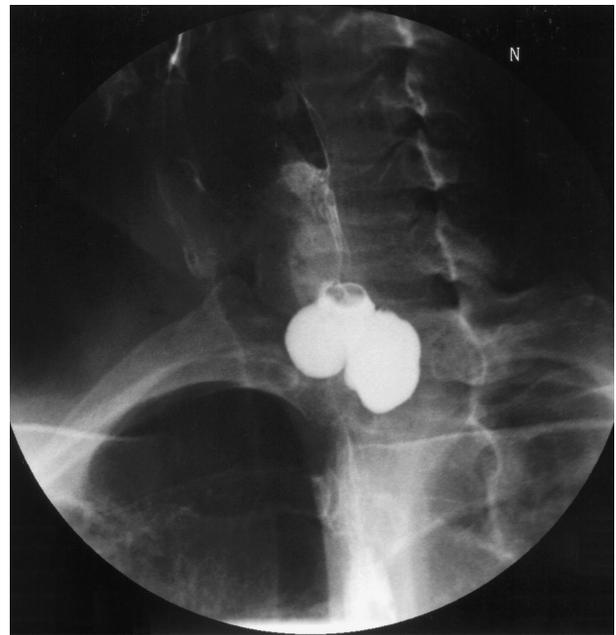


Fig 1. Contrast study demonstrates bilobed Zenker's diverticulum with larger pouch to left.

From the Division of Otolaryngology–Head and Neck Surgery, The George Washington University, Washington, DC (Tanna, Patel, Eisler), the Department of Otolaryngology–Head and Neck Surgery, Emory University, Atlanta, Georgia (Patel), and the Department of Otolaryngology–Head and Neck Surgery, University of Minnesota, Minneapolis, Minnesota (Goding, Maisel).

Correspondence: Alpen A. Patel, MD, Dept of Otolaryngology–Head and Neck Surgery, Emory University, 550 Peachtree St, 9th Floor, Suite 4400, Atlanta, GA 30308.

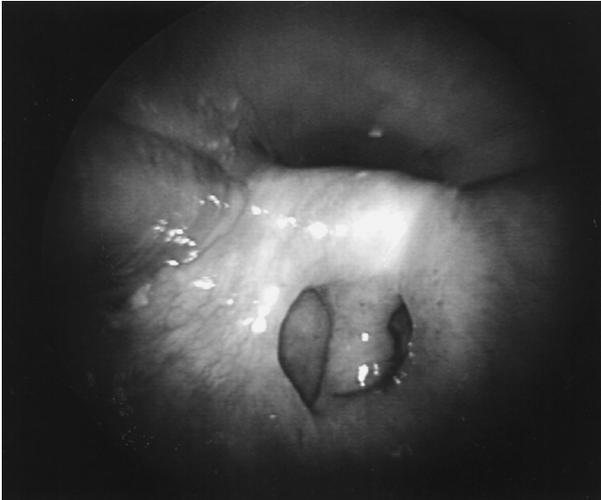


Fig 2. Intraoperative examination confirms bilobed pharyngeal pouch.

discharged the day of surgery. The patient had an uneventful recovery and was free of symptoms on follow-up.

Case 2. A 62-year-old man was referred for evaluation of a Zenker's diverticulum. A barium swallow study performed before our clinical consultation demonstrated a moderate-sized pharyngeal pouch. The referring physician ordered this imaging study because the patient complained of an 8-month history of dysphagia exacerbated by dry foods and medication pills. Additionally, he complained of intermittent regurgitation and dysphagia. His medical history was otherwise noncontributory.

Flexible laryngoscopy revealed interarytenoid and postcricoid edema. Transnasal esophagoscopy confirmed a medium-sized pharyngeal pouch. The remainder of the physical examination findings were normal.

As in the case above, a bivalve diverticuloscope

was used. Upon endoscopy, the esophageal lumen and pharyngeal pouch were identified. However, with closer inspection of the pharyngeal pouch, a second lumen was identified on the left lateral wall (Fig 3). Although a bilobed pharyngeal pouch was diagnosed during the procedure, the decision was made to only perform stapling of the wall separating the esophagus and the larger lobe.

The procedure was completed without difficulty, and the patient tolerated the procedure without complications. The patient was discharged after surgery and is doing well.

DISCUSSION

The incidence of a single pharyngeal pouch is 1 in 200,000, making this an uncommon finding. Factors that predispose patients for development of pharyngeal pouches include a large Killian's triangle and age over 40 years. The combination of anatomic predisposition and loss of tissue elasticity with age results in a mucosal prolapse. In time, a pharyngeal pouch is created from the intraluminal pressure. The most common presenting symptoms are dysphagia, regurgitation of food, weight loss, halitosis, gurgling noises in the neck, coughing, and repeated infections from aspiration.⁶ The diagnosis is confirmed by barium swallow study.

There are two surgical approaches for addressing symptomatic pharyngeal pouches: an open procedure and an endoscopic approach. The treatment of choice for symptomatic pharyngeal pouches greater than 2 cm is endoscopic division and stapling. This is combined with cricomyotomy to eliminate the possible pathogenic factor of cricopharyngeal dysfunction. This method offers a lower rate of morbidity and mortality than does external repair.⁷ It has been reported to result in a shorter hospital stay and earlier resumption of a normal diet.^{8,9} Disad-

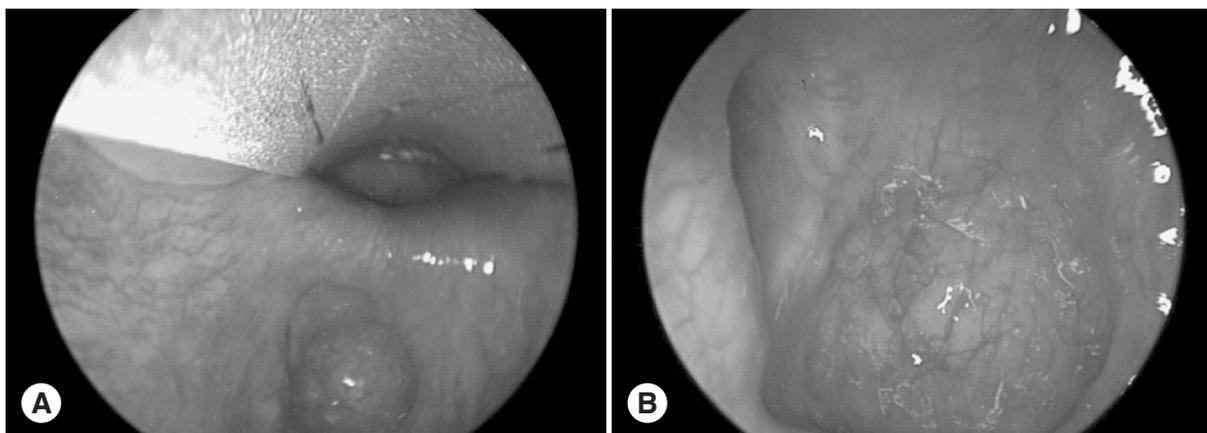


Fig 3. Intraoperative endoscopy. **A)** Pharyngeal pouch. **B)** Closer inspection reveals second pouch with its lumen along left lateral wall of larger pharyngeal pouch.

vantages associated with the endoscopic approach include inability to properly position the diverticuloscope due to unfavorable anatomy, prominent upper incisors, small mouth opening, limited neck extension, and distal diverticulum.⁶ In these circumstances, an open approach is preferred.

Small diverticula are generally asymptomatic. Furthermore, they have been shown to remain sta-

ble in size over a period of years. In a study of 643 cases of symptomatic pharyngeal pouches, only 3 had been previously diagnosed as small diverticula.⁶ This finding suggests that small diverticula do not have to be regarded as precursors for larger, more serious diverticula. Therefore, we hypothesize that successful treatment of bilobed pharyngeal pouches may only require endoscopic correction of the larger lobe.

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