

Endoscopic and Abdominal Management of Complete Benign Esophageal Obstruction

Abed Al-Lehibi, MD, FACP, FACG, FASGE

Department of Gastroenterology, King Saud Bin Abdulaziz University-Health Science, King Fahad Medical City, Riyadh, Saudi Arabia

Abstract

Benign esophageal strictures leading to complete esophageal occlusion are well known. In the pre-endoscopic era, such cases required surgery, but over the last decade, various novel endoscopic techniques have been developed to prevent morbidity and mortality. A 37-year-old man presented after 1 year of dysphagia and weight loss, and was found to have complete esophageal obstruction, not allowing even passage of guidewire. We used a combination antegrade endoscopic abdominal procedures to deploy a stent, obviating the need for surgery. His symptoms improved dramatically, and the stent was successfully removed 12 weeks later. He is now swallowing normally and has gained significant weight.

Introduction

Benign esophageal strictures leading to complete esophageal obstruction are usually caused by acid peptic disease, various infections, or caustic ingestion. Complete esophageal obstruction can also occur after the use of some medications or after radiation therapy. However, the etiology remains unknown in many cases. Complete esophageal obstruction is rare, and with an incidence of 0.8% in modern endoscopic practice.¹

Case Report

A 37-year-old man presented to our hospital with complete esophageal obstruction and a weight loss of 14 kg over the past year, despite a healthy appetite. His vitals were stable and physical examination was normal. Endoscopic examination revealed tight stenosis on the distal esophagus, and despite multiple attempts, no guidewire could be inserted (Figure 1). The patient denied caustic ingestion. Abdominal computed tomography was normal. We proceeded with a dual oral and abdominal approach to stricture management. Under general anesthesia, percutaneous gastric access was created and a guidewire was advanced retrograde through the stricture. The wire was grasped and pulled out through the adult upper scope channel, which had been orally advanced. The stricture was dilated using controlled radial expansion with a 6-8-10 mm balloon, then a fully covered 10-cm metallic stent was deployed across the stricture (Figure 2). Biopsies were normal with no evidence of malignancy. No post-procedural complications were noted, and the patient was discharged. On follow-up, he was shown to have gained weight satisfactorily, and the stent was removed after 12 weeks. Repeat endoscopic examination showed that the lower end of esophagus remained patent and allowed for the passage of an adult endoscope (Figure 3).

Discussion

Side effects of radiation therapy is the most common cause of upper esophageal lesions. Esophageal strictures that cause complete obstruction are often difficult to manage with standard endoscopic techniques. Before recent

ACG Case Rep J 2016;3(3):162-164. doi:10.14309/crj.2016.37. Published online: April 15, 2016.

Correspondence: Abed Al-Lehibi, King Saud Bin Abdulaziz University, Gastroenterology & Hepatology Pancreatobiliary Interventional Endoscopy, Saudi Arabia, Riyadh 11525, B.O Box 5904 (aallehibi@kfmc.med.sa).



Copyright: © 2016 Al-Lehibi et al. This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-nd/4.0>.



Figure 1. Endoscopy showing complete obstruction of lower end of esophagus.

evolution of endoscopic methods, open esophagectomy and laproscopic esophagectomy were used to treat these cases, but the mortality rate was reported as high as 18%. There has been reported success with an antegrade approach alone, but this has been primarily with upper esophageal obstructions.² A combined antegrade-retrograde endoscopic dilation (CARD) technique allowing non-surgical lumen restoration was reported in 1996, and many similar successful reports have followed.³⁻⁵ Reports employing this method have reported no complications, and have concluded that a successful dual approach depends on the length of the stricture and the ability to tranilluminate.^{6,7}

Metallic stents can be used for benign strictures in carefully selected patients, and have been effective in refractory, recurrent, and difficult strictures.^{8,9} The main complication of stent placement in benign strictures is migration, as there is

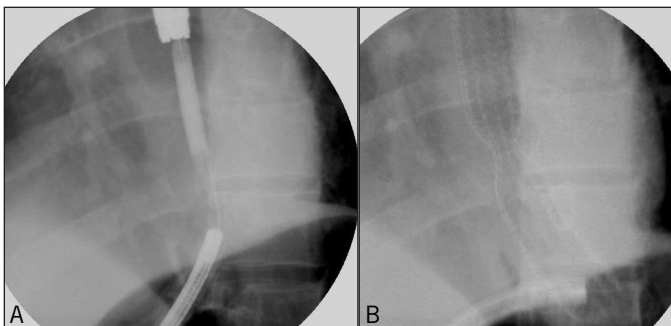


Figure 2. (A) Dilation of the stricture using controlled radial expansion with a 6-8-10 mm balloon, and (B) deployment of a fully covered 10-cm metallic stent across the stricture.

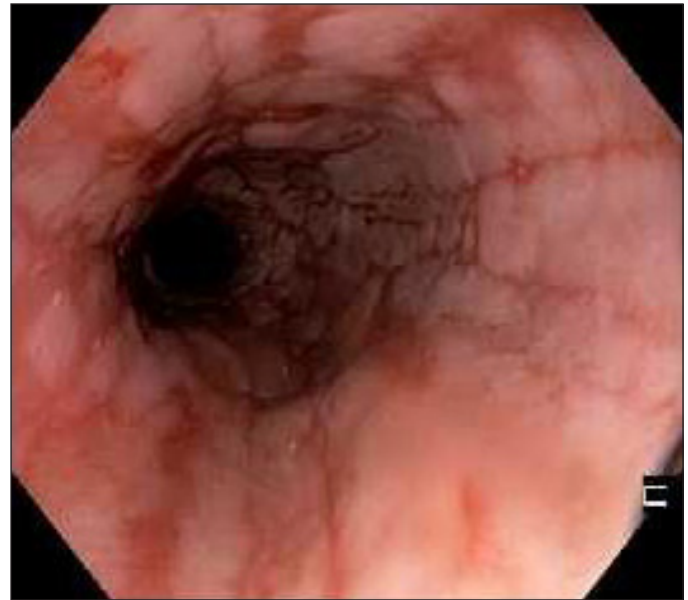


Figure 3. Repeat endoscopy after stent removal at 12 weeks showing lower esophagus patency and successful passage of the adult endoscopy.

no malignant tumor to hold the stent and prevents its migration. It is imperative to use a stent of appropriate diameter and size in order to avoid this complication. We did not observe any migration during the placement period of 12 weeks, after which the stent was removed. We urge physicians to consider the dual antegrade and retrograde endoscopic technique as a safe and effective modality for the management of total esophageal obstruction due to benign etiology.

Disclosures

Author contributions: A. Al-Lehibi wrote the manuscript and is the article guarantor

Financial disclosure: None to report.

Informed consent was obtained for this case report.

Received June 28, 2015; Accepted December 17, 2015

References

1. Laurell G, Kraepelien T, Mavroidis P, et al. Stricture of the proximal esophagus in head and neck carcinoma patients after radiotherapy. *Cancer*. 2003;97(7):1693-700.
2. Tang SJ, Singh S, Truelson JM. Endotherapy for severe and complete pharyngo-esophageal post-radiation stenosis using wires, balloons and pharyngo-esophageal puncture (PEP) (with videos). *Surg Endosc*. 2010;24(1):210-4.
3. Garcia A, Flores RM, Schattner M, et al. Endoscopic retrograde dilation of completely occlusive esophageal strictures. *Ann Thorac Surg*. 2006;82(4):1240-3.
4. Steele NP, Tokayer A, Smith RV. Retrograde endoscopic balloon dilation of chemotherapy- and radiation-induced esophageal stenosis under direct visualization. *Am J Otolaryngol*. 2007;28(2):98-102.

5. Dellon ES, Cullen NR, Madanick RD, et al. Outcomes of a combined antegrade and retrograde approach for dilatation of radiation-induced esophageal strictures (with video). *Gastrointest Endosc*. 2010;71(7):1122–9.
6. Bueno R, Swanson SJ, Jaklitsch MT, et al. Combined antegrade and retrograde dilation: A new endoscopic technique in the management of complex esophageal obstruction. *Gastrointest Endosc*. 2001;54(3):368–72.
7. Babich JP, Diehl DL, Entrup MH. Retrograde submucosal tunneling technique for management of complete esophageal obstruction. *Surg Laparosc Endosc Percutan Tech*. 2012;22(4):232–5.
8. Dua KS. Expandable stents for benign esophageal disease. *Gastrointest Endosc Clin N Am*. 2011;21(3):359–76.
9. De Wijkerslooth LR, Vleggaar FP, Siersema PD. Endoscopic management of difficult or recurrent esophageal strictures. *Am J Gastroenterol*. 2011;106(12):2080–91.

Publish your work in ACG Case Reports Journal

ACG Case Reports Journal is a peer-reviewed, open-access publication that provides GI fellows, private practice clinicians, and other members of the health care team an opportunity to share interesting case reports with their peers and with leaders in the field. Visit <http://acgcasereports.gi.org> for submission guidelines. Submit your manuscript online at <http://mc.manuscriptcentral.com/acgcr>.