

Complete esophageal obstruction after endoscopic variceal band ligation



Fig. 1 Placement of the band during endoscopic variceal ligation. After the band had been placed, we observed that the banded varix almost occluded the esophageal lumen.



Fig. 2 Later, Gastrografin swallow shows esophageal dilatation with complete obstruction at the distal esophagus.

Endoscopic variceal band ligation (EVL) is the endoscopic therapy of choice for esophageal varices. We present a very rare complication of EVL: complete esophageal obstruction [1].

A 64-year-old woman with cirrhosis was admitted for her fourth EVL. During the procedure, esophageal mucosal scarring from previous ligation, mild stenosis of the lower third of the esophagus, and a single large varix were identified. The large varix was ligated with only one band (Cook Medical, Bloomington, Indiana, USA). The banded varix almost occluded the esophageal lumen (▶ **Fig. 1**, ▶ **Video 1**).

The patient was sent home asymptomatic. Dysphagia, vomiting, and chest pain developed, and she returned to our emergency department appearing ill. The physical examination findings were normal. A Gastrografin swallow showed esophageal dilatation with complete obstruction at the distal esophagus (▶ **Fig. 2**). During upper gastrointestinal endoscopy, black mucosa and a complete esophageal obstruction were found at the site of the previous banding (▶ **Fig. 3**, ▶ **Video 2**). The patient was given nothing by mouth for 7 days, after which she was able to tolerate a liquid diet. By day 11, she could tolerate a full diet. At 4 months after EVL, she is asymptomatic.

Complete esophageal obstruction is a very rare event. To our knowledge, only three other cases have been reported in the lit-

erature. Verma et al. [2] and Nikoloff et al. [3] separately reported patients with complete esophageal obstruction after a second EVL procedure. Both patients completely recovered with only supportive therapy. Chahal et al. [4] reported a similar patient; however, they tried unsuccessfully to reopen the esophagus with a biopsy forceps, and esophageal dissection occurred. The patient completely recovered without further intervention. Several factors and mechanisms can be involved in the development of an esophageal obstruction, such as a large size of the varix, the excessive use of suction, mucosal scarring due to previous ligation procedures, and esophageal stenosis. It is suggested that this complication may be prevented with a correct banding technique and careful suctioning of the esophageal varix. Most of the time, only supportive therapy is needed.



Fig. 3 Subsequent endoscopy shows black mucosa and complete esophageal obstruction at the site of the previously banded area.

Endoscopy_UCTN_Code_CPL_1AH_2AJ

Competing interests: None

Video 1

Placement of the band during endoscopic variceal ligation. The banded varix almost occludes the esophageal lumen.

Video 2

Subsequent endoscopy shows black mucosa and complete esophageal obstruction at the site of the previously banded area.

Reyna L. Elizondo-Rivera, José A. González-González, Diego Garcia-Compean, Hector J. Maldonado-Garza

Gastroenterology Department, Hospital Universitario Dr. José Eleuterio González, Monterrey, Nuevo León, Mexico

References

- 1 *Garcia-Tsao G, Sanyal AJ, Grace ND et al.* Prevention and management of gastroesophageal varices and variceal hemorrhage in cirrhosis [published correction appears in *Am J Gastroenterol* 2007; 102: 2868]. *Am J Gastroenterol* 2007; 102: 2086–2102
- 2 *Verma D, Pham C, Madan A.* Complete esophageal obstruction: an unusual cause of esophageal band ligation. *Endoscopy* 2009; 41 (Suppl. 02): E200–E201
- 3 *Nikoloff MA, Riley TR, Schreiberman IR.* Complete esophageal obstruction following endoscopic variceal ligation. *Gastroenterol Hepatol* 2011; 7: 557–559
- 4 *Chahal H, Ahmed A, Sexton C et al.* Complete esophageal obstruction following endoscopic variceal band ligation. *J Community Hosp Intern Med Perspect* 2013; 3. doi: 10.3402

Bibliography

DOI <http://dx.doi.org/10.1055/s-0034-1377528>
Endoscopy 2014; 46: E457–E458
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

Corresponding author

José A. González-González, MD
Gastroenterology Department
Hospital Universitario Dr. José Eleuterio González
Av. Francisco I. Madero y Gonzalitos sin número
Mitras Centro
64460 Monterrey, Nuevo León
Mexico
jalbertogastro@gmail.com