Complete esophageal obstruction after endoscopic variceal band ligation

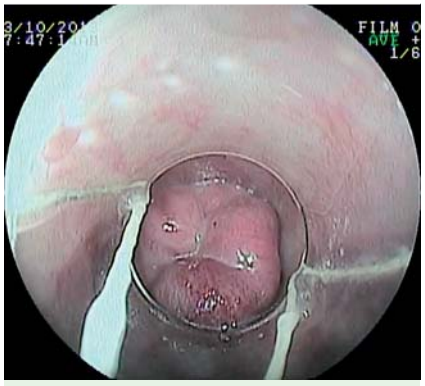

Fig. 1 Placement of the band during endoscopic variceal ligation. After the band had been placed, we observed that the banded varix almost occluded the esophageal lumen.

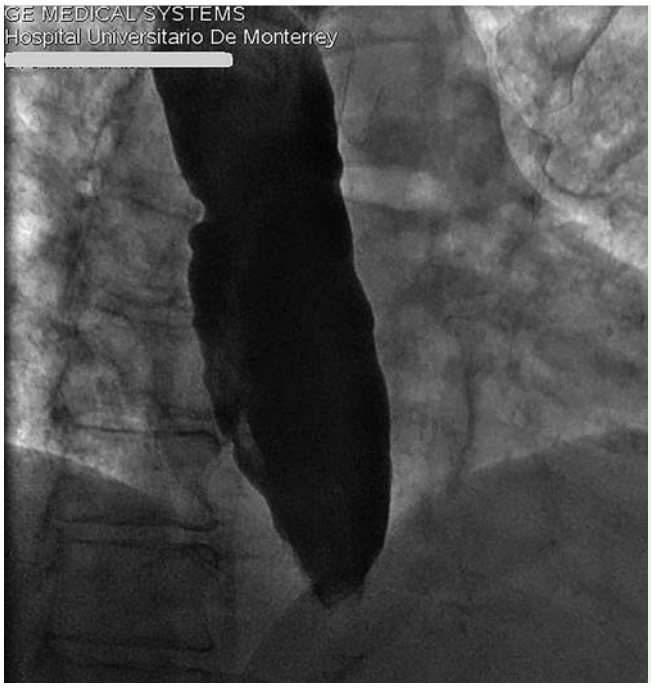

Fig. 2 Later, Gastrografin swallow shows esophageal dilatation with complete obstruction at the distal esophagus.

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 literature. 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.

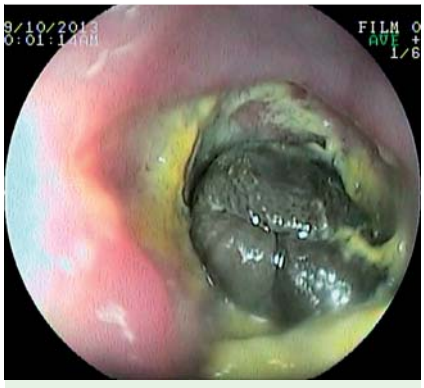

Fig. 3 Subsequent endoscopy shows black mucosa and complete esophageal obstruction at the site of the previously banded area.

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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.

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