



Complete Esophageal Obstruction Secondary to Variceal Banding

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INTRODUCTION

- Variceal banding is an effective strategy for primary and secondary prophylaxis of esophageal varices.
- Known complications of variceal banding include bleeding, ulceration, dysphagia, and stricture.
- Rarely, complete esophageal occlusion from variceal banding can occur.
- We present the case of an elderly cirrhotic female who developed complete esophageal obstruction from variceal banding.

CASE DESCRIPTION

- A 78-year-old female with NASH cirrhosis and known esophageal stricture was transferred to our facility for intractable nausea and vomiting following an EGD for band ligation of bleeding grade 2-3 esophageal varices.
- Her symptoms persisted despite the use of octreotide, proton pump inhibitors, and anti-emetics.
- Vitals signs and physical examination were unremarkable aside from epigastric tenderness with ascites.
- Laboratory studies demonstrated pre-renal acute on chronic kidney injury and chronic normocytic anemia with normal coagulation profile.
- Barium esophagogram showed distal esophageal obstruction and incomplete passage of contrast into the gastric pouch.
- EGD (8 days following initial band ligation) discovered a banded varix completely obstructing the distal esophageal lumen with surrounding necrotic tissue (Figure 1-A). The esophageal lumen was restored following band removal with rat-toothed forceps which allowed visualization of two benign appearing circumferential and ulcerated strictures (Figure 1-B).

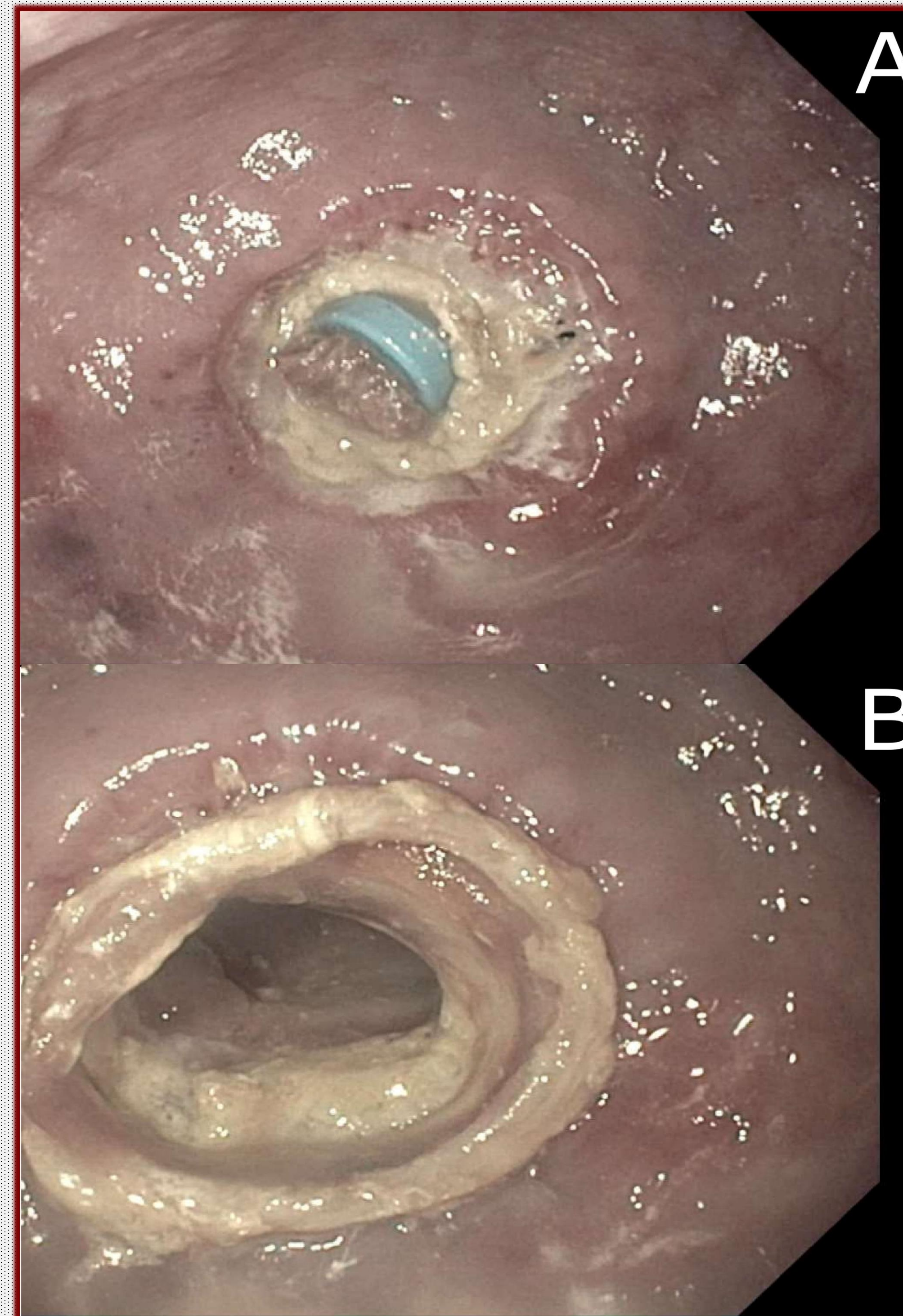


Figure 1-A: Complete obstruction of the distal esophageal lumen by a banded varix.
Figure 1-B: Esophageal lumen restored following band removal with circumferential and ulcerated strictures distal to the obstruction.

HOSPITAL COURSE

- A nasojunal tube was passed with minimal resistance after variceal band removal which allowed for temporary nutrition with tube feedings.
- However, the patient failed to maintain adequate nutrition with oral intake alone due to persistent regurgitation of liquids and solids.
- To decrease the hepatic venous pressure gradient and allow for safer insertion of esophageal stents, a TIPS procedure was performed.
- Unfortunately for the patient, a diagnosis of hepatocellular carcinoma was made during the evaluation for TIPS procedure.
- The patient was discharged on hospital day 19 tolerating a dysphagia diet. She later returned to the hospital several weeks later with hepatic encephalopathy.

DISCUSSION

- Complications of variceal banding are typically transient as banded varices normally slough off within 48-72 hours of band ligation.¹
- Prolonged complete esophageal obstruction by a banded varix is extremely rare, with under 20 documented cases.
- Conservative treatment strategies have achieved symptom resolution after weeklong courses of TPN or IV fluids²⁻⁷, but esophageal strictures can be observed.^{2,5}
- Aggressive management with endoscopic band removal can produce immediate symptomatic resolution⁸⁻⁹ but complications such as esophageal intraluminal dissection¹⁰ and stricture^{1,11-12} have been documented.
- Whether immediate band removal improves outcomes is a matter of debate.

REFERENCES

1. Sobotka LA, Ramsey ML, Wellner M, Kelly SG. Rare cause of dysphagia after esophageal variceal banding: A case report. *World J Gastrointest Endosc* 2019; 11(4): 292-297
2. Mansour M, Abdel-Aziz Y, Awadh H, Shah N, Ajmera A. Complete esophageal obstruction after endoscopic variceal band ligation in a patient with a sliding hiatal hernia. *ACG Case Rep J* 2017;4:e8.
3. Elizondo-Rivera RL, Gonzalez-Gonzalez JA, Garcia-Compean D, Maldonado-Garza HJ. Complete esophageal obstruction after endoscopic variceal band ligation. *Endoscopy* 2014;46 Suppl 1 UCTN:E457-E458
4. Nikoloff MA, Riley TR 3rd, Schreiberman IR. Complete esophageal obstruction following endoscopic variceal ligation. *Gastroenterol Hepatol (NY)* 2011;7:557-559
5. Nawaz A, Sarwar S, Batul A. Complete esophageal occlusion following esophageal variceal band ligation: an unusual complication: a case report. *Visible Human Journal of Endoscopy* 2010;9:1-4.
6. Verma D, Pham C, Madan A. Complete esophageal obstruction: an unusual complication of esophageal variceal ligation. *Endoscopy* 2009;41 Suppl 2:E200-E201
7. Saltzman JR, Arora S. Complications of esophageal variceal band ligation. *Gastrointest Endosc* 1993;39:185-186.
8. Kwiatk JT, Merchant P. Successful removal of an esophageal band causing complete esophageal obstruction after variceal ligation. *Gastrointest Endosc* 2016;83:1030-1031
9. Jalil AAA, Hammoud G, Ibdah JA, Samiullah S. Removal of Esophageal Variceal Bands to Salvage Complete Esophageal Obstruction. *Clin Endosc*. 2018 Sep;51(5):491-494.
10. Chahal H, Ahmed A, Sexton C, Bhatia A. Complete esophageal obstruction following endoscopic variceal band ligation. *J Community Hosp Intern Med Perspect* 2013;3
11. de Melo SW. Complete esophageal occlusion after band ligation. *Endoscopy* 2011;43 Suppl 2 UCTN:E259
12. Maric L, Alonso Y, Alvarez A, Erim T. Endoscopic variceal band ligation leading to acute onset dysphagia. *Am J Gastroenterol* 2016;111:S692.

