



A bleeding vallecular varix, visualized by GI endoscopy, confirmed with CT angiography, and treated with sclerotherapy and cyanoacrylate

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Upper-GI bleeding is most commonly secondary to peptic ulcer disease, Mallory-Weiss tear, esophagitis, or variceal hemorrhage.^{1,2} Significant hemorrhage from an oropharyngeal source such as vallecular varices is rare, with only a few case reports available in the literature.

Sublingual varices have been described commonly in patients with cardiovascular disease and smoking^{3,4}; however, the pathogenesis of vallecular varices is poorly understood and believed to be secondary to chronic coughing resulting from respiratory conditions such as bronchitis and tuberculosis.⁵⁻⁷ Only 1 case of base-of-the-tongue varices in a patient with portal hypertension due to liver cirrhosis has been reported.⁸ The diagnosis and treatment of the majority of these patients is based on an otolaryngology approach, with laryngoscopy-based or bronchoscopy-based diathermy coagulation^{5,6} or laser.⁷⁻⁹ Only a solitary case has been treated with laryngoscopy-based injection sclerotherapy of 4 mL of tetradecyl sulfate.¹⁰

A 59-year-old woman with autoimmune hepatitis complicated by cirrhosis and portal hypertension, who had undergone esophageal variceal ligation to obliteration within the preceding year, presented with episodes of “spitting up blood” without vomiting, melena stools, or coughing. She had experienced 3 similar presentations within 5 months, and no bleeding source had been identified by upper endoscopies performed on each occasion. After extensive investigations, including an evaluation by a pulmonary specialist, she was labeled to have “pseudo-hemoptysis.” At this presentation, an otorhinolaryngologist performed an otorhinolaryngology evaluation and did not identify a source but stated that “abnormal-appearing” vessels were seen in the oropharynx.

The patient’s hemoglobin dropped from 9.9 g/dL to 7.9 g/dL within 8 hours; her blood urea was normal at 2.9 mmol/L. EGD with an Olympus therapeutic gastroscope revealed no blood in the distal esophagus, stomach, or duodenum; however, fresh blood was visualized in the oral cavity.

The patient’s hemoglobin fell further to 6.4 g/dL, requiring transfusions of red blood cells. Therefore, a

repeated EGD with an Olympus pediatric gastroscope was performed, and after topical anesthesia was given, a 3-mm left vallecular varix was visualized (Fig. 1) and subsequently confirmed by CT angiography, before and after a Valsalva maneuver (Figs. 2 and 3). No collaterals were identified.

A cap-assisted EGD was performed with the patient under general anesthesia. The varix was identified (Fig. 4) and injected with 40 mg (10 mg/mL) sodium tetradecyl sulfate; however, this caused oozing from the varix. Hence, 1 mL of cyanoacrylate was injected, which provided adequate hemostasis (Video 1, available online at www.VideoGIE.org).

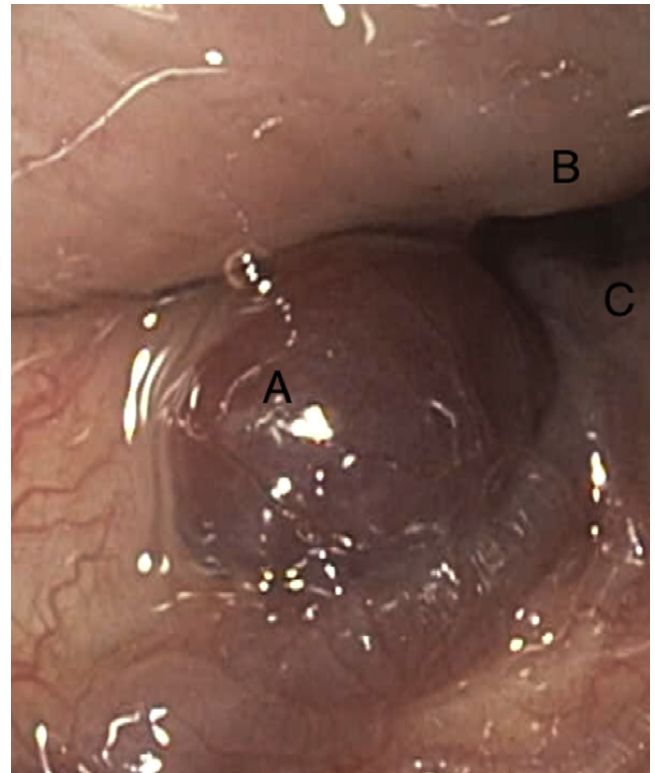


Figure 1. A, Varix. B, Base of tongue. C, Epiglottis.

Written transcript of the video audio is available online at www.VideoGIE.org.

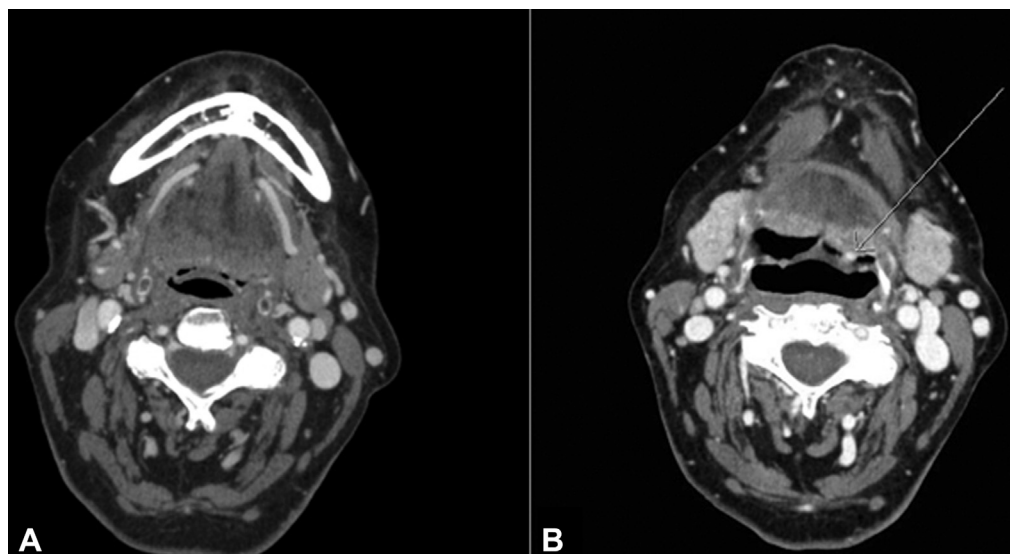


Figure 2. CT angiographic view of head and neck vessels, axial plane. **A,** Before Valsalva maneuver. **B,** After Valsalva maneuver; varix identified (*arrow*).



Figure 3. CT angiographic view of head and neck vessels, coronal view. Post-Valsalva maneuver identifies the varix (*arrow*).

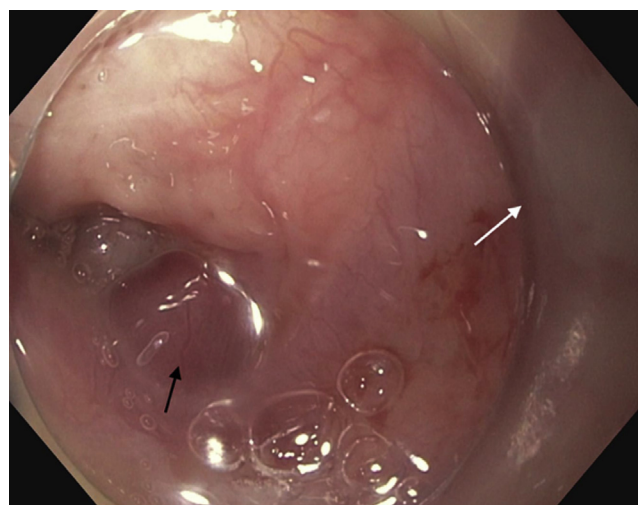


Figure 4. Cap-assisted endoscopic view showing varix (*black arrow*); endoscope cap (*white arrow*).

After endoscopic therapy, the patient was kept intubated in the intensive care unit for 24 hours for airway protection, was extubated, and was transferred to the medical ward. No further bleeding episodes or adverse events were noted, and her hemoglobin was stable at 9.2 g/dL.

Vallecular varices are idiopathic in etiology and likely arise de novo. Diagnosis is a challenge, especially if they are not bleeding at the time of examination; however, CT angiography with a Valsalva maneuver can be used to confirm their presence. Cyanoacrylate was effective in providing immediate hemostasis and preventing recurrence, with no rebleeding at the patient's 1-month and 8-month follow-up visits. No bacteremia or thromboembolism was encountered, as seen in gastric variceal

obturation,^{11,12} in keeping with the documented safety of cyanoacrylate in oromaxillofacial surgery procedures.¹³

DISCLOSURE

All authors disclosed no financial relationships relevant to this publication.

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