Ultrarapid Development of Ruptured Esophageal Varices in a Patient With a History of Heller Myotomy

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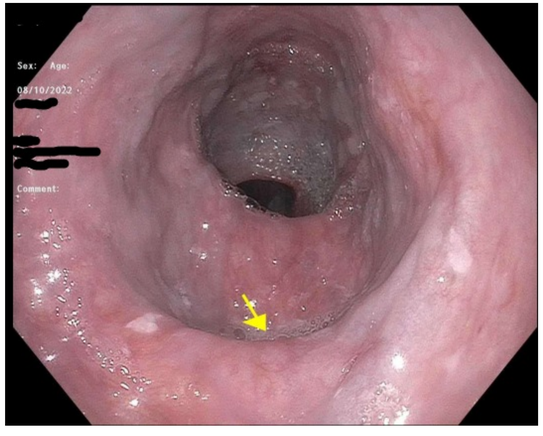
Background

- Esophageal varices are enlarged veins within the esophagus, connecting the portal and systemic circulation.
- In cirrhotic patients, resistance within the portal circulation can often lead to pooling of blood within these esophageal portosystemic collateral vessels, which can eventually lead to rupture, and a deadly upper GI bleed.
- Therefore, all cirrhotic patients without a history of varices are recommended to undergo a screening EGD every 2 to 3 years.
- We present an unusual case of variceal hemorrhage in a patient who was seen to have no varices on EGD only a month earlier.

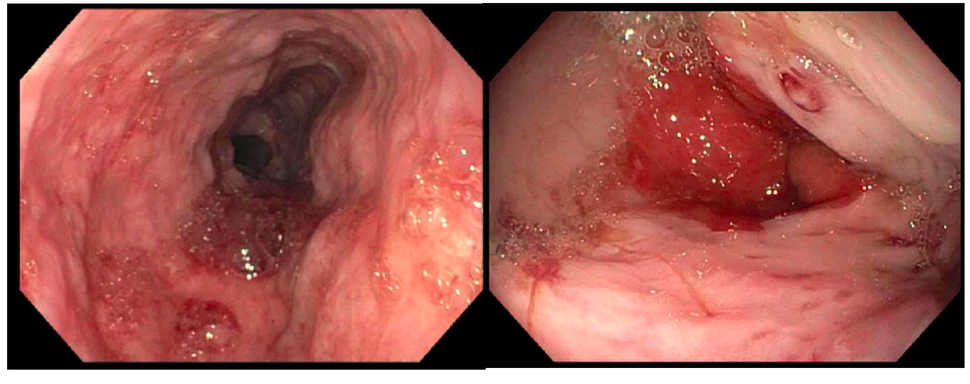
Case Description

A 62 year old male with a history of alcoholic cirrhosis and achalasia s/p Heller myotomy in 2019 presented following 4 episodes of large volume hematemesis. The patient was hypotensive and tachycardic on admission and lab work was significant for anemia. Of note, the patient underwent an EGD only a month earlier, which showed no evidence of varices.. The patient required IV fluids as well as 3 units of blood and was started on an octreotide drip as well as pantoprazole and ceftriaxone. The patient then underwent an EGD, which showed three columns of small esophageal varices. Although there were no red wale signs, there was a white nipple sign in the lower esophagus, indicating recent bleeding. Two bands were placed on the white nipple area. Following his EGD, the patient experienced no recurrent bleeding, and was hemodynamically stable.

Initial EGD showing no esophageal varices



EGD at time of presentation showing varices with recent bleeding



Discussion

- Esophageal varices are present in 50-60% of patients with compensated cirrhosis.
- According to the American Association for the Study of Liver Diseases (AASLD), an initial screening endoscopy should be performed at the time of diagnosis of cirrhosis. If small varices are seen on the initial endoscopy, then endoscopy should be repeated every 1-2 years, but if no varices are seen on the initial endoscopy, then endoscopy should be repeated every 2-3 years.
- Current guidelines do not recommend more frequent endoscopic surveillance, as the risk of variceal hemorrhage within 3 years of initial endoscopy in patients without varices is below 10%.
- In our patient, only 36 days after his initial negative endoscopy, the patient developed three columns of esophageal varices which had ruptured, causing hemorrhagic shock.
- Rapid development of esophageal varices has been reported but typically in the setting of a potentially inciting factor.
- There were no identifiable potential inciting factors that took place within the 36 days between our patient's initial endoscopy and his presentation with ruptured varices.
- However, the patient did have a history of achalasia, and was surgically treated with a Heller myotomy back in 2019.
- The Heller myotomy involves cutting through the outer longitudinal muscle fibers of the lower esophagus. This extensive manipulation of the lower esophagus may have played a role in the rapid development of esophageal varices in the lower esophagus three years later.
- Within the literature, although there are several reports of managing achalasia with myotomies in patients with a history of esophageal varices, there are no known studies or reports of esophageal varices developing in patients with a history of myotomy.
- As studies and reports regarding the association between myotomies and development of esophageal varices are quite scarce, further literature on the topic is most certainly warranted.

References

Li QQ, Li HY, Bai ZH, et al. Esophageal collateral veins in predicting esophageal variceal recurrence and rebleeding after endoscopic treatment: a systematic review and meta-analysis.

Jakab SS, Garcia-Tsao G. Screening and Surveillance of Varices in Patients With Cirrhosis. Clin Gastroenterol Hepatol. 2019;17(1):26-9.Gastroenterol Rep (Oxf). 2020;8(5):355-61.