Bleeding Duodenal Varix Treated with Hemostatic Clips

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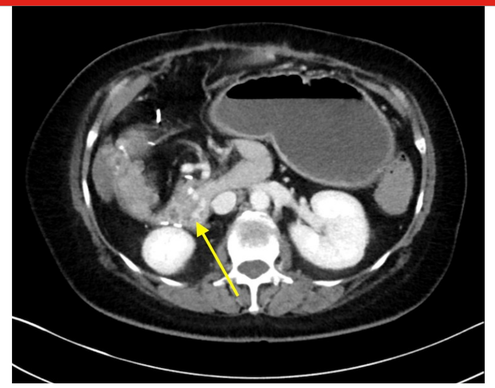
Introduction

- Duodenal varices are a rare etiology of upper gastrointestinal bleeding with a prevalence of 0.4% in patients with portal hypertension undergoing esophagogastroduodenoscopy (EGD) (1).
- Ectopic varices account for 1–5% of variceal bleeding, of which 17–40% are estimated to occur within the duodenum (2).
- Definitive guidelines on the management of duodenal varices, which have an estimated mortality rate of 40%, have not been established (3).
- We report the use of hemostatic clips to achieve hemostasis in a case of a bleeding duodenal varix due to portal hypertension in an orthotopic liver transplant patient with a dysfunctional mesocaval shunt.

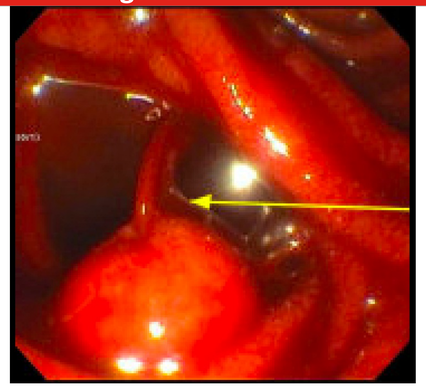
Case Description

- A 42-year-old female with advanced liver cirrhosis (MELD 17) secondary to alcohol use and primary biliary cholangitis status post orthotopic liver transplant complicated by portal vein thrombosis with recurrent portal hypertension. She presented with one day of bright red blood per rectum.
- On admission, her vital signs were significant for hypotension (81/61 mmHg) and tachycardia (132 bpm). Her hemoglobin was 7.6 g/dL (baseline 12 g/dL).
- Computed tomography angiography was remarkable for prominent proximal duodenal mucosal varices (Figure 1A), portosystemic shunting with prominent splenorenal and gastric/gastroesophageal varices, and portal vein thrombosis.
- EGD was significant for a large (> 5 mm) actively bleeding varix in the second portion of the duodenum (Figure 1B), for which two hemostatic clips were successfully placed with resolution of bleeding (Figure 1C).
- The patient remained hemodynamically stable post-procedure and was transferred to her transplant center for further management with no further bleeding episodes.

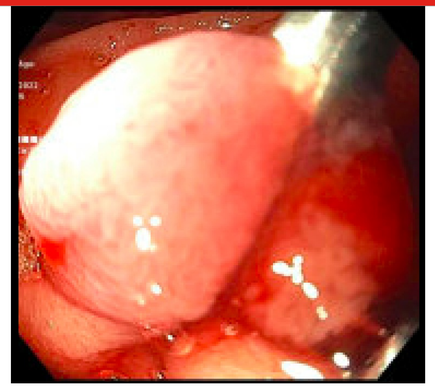
Figure 1



(A) Computed tomography angiography (CTA) revealing prominent proximal duodenal mucosal varices, likely from the superior mesenteric vein.



(B) Esophagogastroduodenoscopy (EGD) demonstrating a large (> 5 mm) actively bleeding varix in the second portion of the duodenum.



(C) EGD demonstrating hemostatic clips placed on the duodenal varix with resolution of bleeding.

Discussion

- Alcoholic-associated liver disease (ALD) is one of the most common causes of cirrhosis (4). As the incidence and prevalence of ALD continues to rise (5), it is important that management of duodenal variceal bleeding becomes more standardized.
- Only a few cases have reported the use of hemostatic clips in these patients.
- Treatment options include band ligation, coiling, cyanoacrylate injection, balloon-occluded retrograde transvenous obliteration, and transjugular intrahepatic portosystemic shunt (1).
- Standardized treatment modalities for duodenal variceal bleeds have not been well-established and further studies are required to investigate appropriate management strategies.
- Our case demonstrates that hemostatic clips can be effectively used to achieve hemostasis.

References

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