

# Hemorrhagic Shock from a Duodenal Ulcer Eroding into an Ectopic Varix

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## Introduction

- Ectopic varices are a rare complication of cirrhosis representing only 1-3% of all varices. Duodenal varices are especially challenging to diagnose and control bleeding with a mortality rate of up to 40%.
- In patients with cirrhosis, upper GI bleeding that is non-variceal in origin is most commonly due to peptic ulcer disease. Given its anatomic location, the gastroduodenal artery is typically associated with duodenal ulcer bleeding.
- Here, we report an unusual case of a duodenal ulcer that eroded into an ectopic varix resulting in hemorrhagic shock.

## Case Description

- A 47-year-old male with a history of alcohol-related cirrhosis was transferred to our medical intensive care unit for management of hemorrhagic shock secondary to an upper GI bleed.
- An urgent EGD showed no esophagogastric varices, mild portal hypertensive gastropathy, 3 non-bleeding, clean-based ulcers in the duodenal bulb (Fig 1A) and 1 ulcer with an adherent clot that was actively bleeding into the 2nd portion of the duodenum (Fig 1B). A submucosal epinephrine injection was performed around the bleeding site to achieve hemostasis. The patient underwent celiac and superior mesenteric angiography, which showed no active extravasation, and an empiric coil embolization of the gastroduodenal artery was performed.
- After two days, the patient developed worsening hypotension with new hematemesis. CT angiography revealed a large duodenal varix with active hemorrhage into the 2nd portion of the duodenum (Fig 2). There was no clear route to access the duodenal varix endovascularly and an emergent TIPS was not recommended due to hemodynamic instability. The decision was made to transition the patient to comfort care and he shortly succumbed to his illness.

## Images

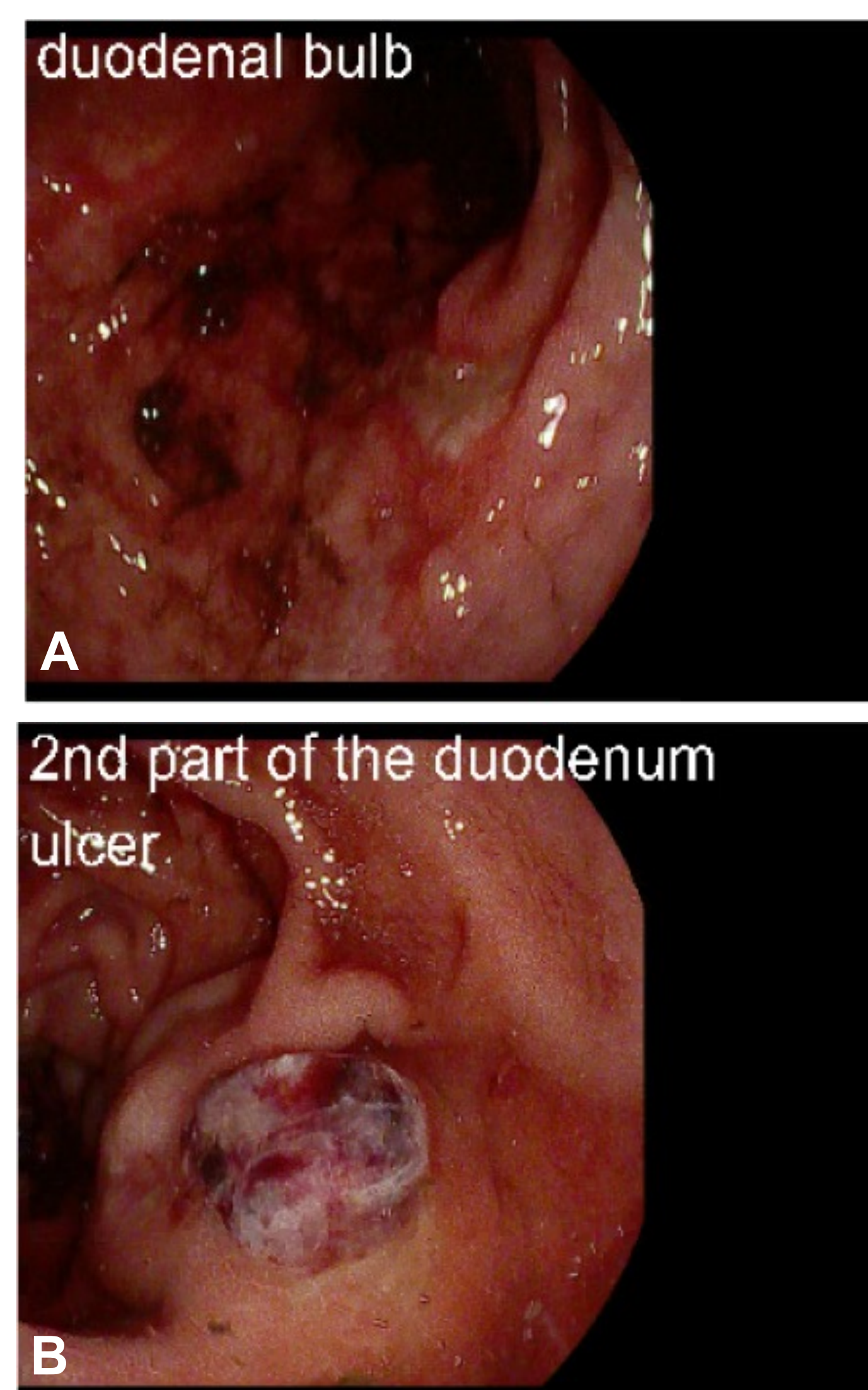


Figure 1: A. Endoscopy showing 3 non-bleeding, clean-based ulcers in the duodenal bulb. B. Endoscopy demonstrating a single ulcer with an adherent clot and active bleeding.

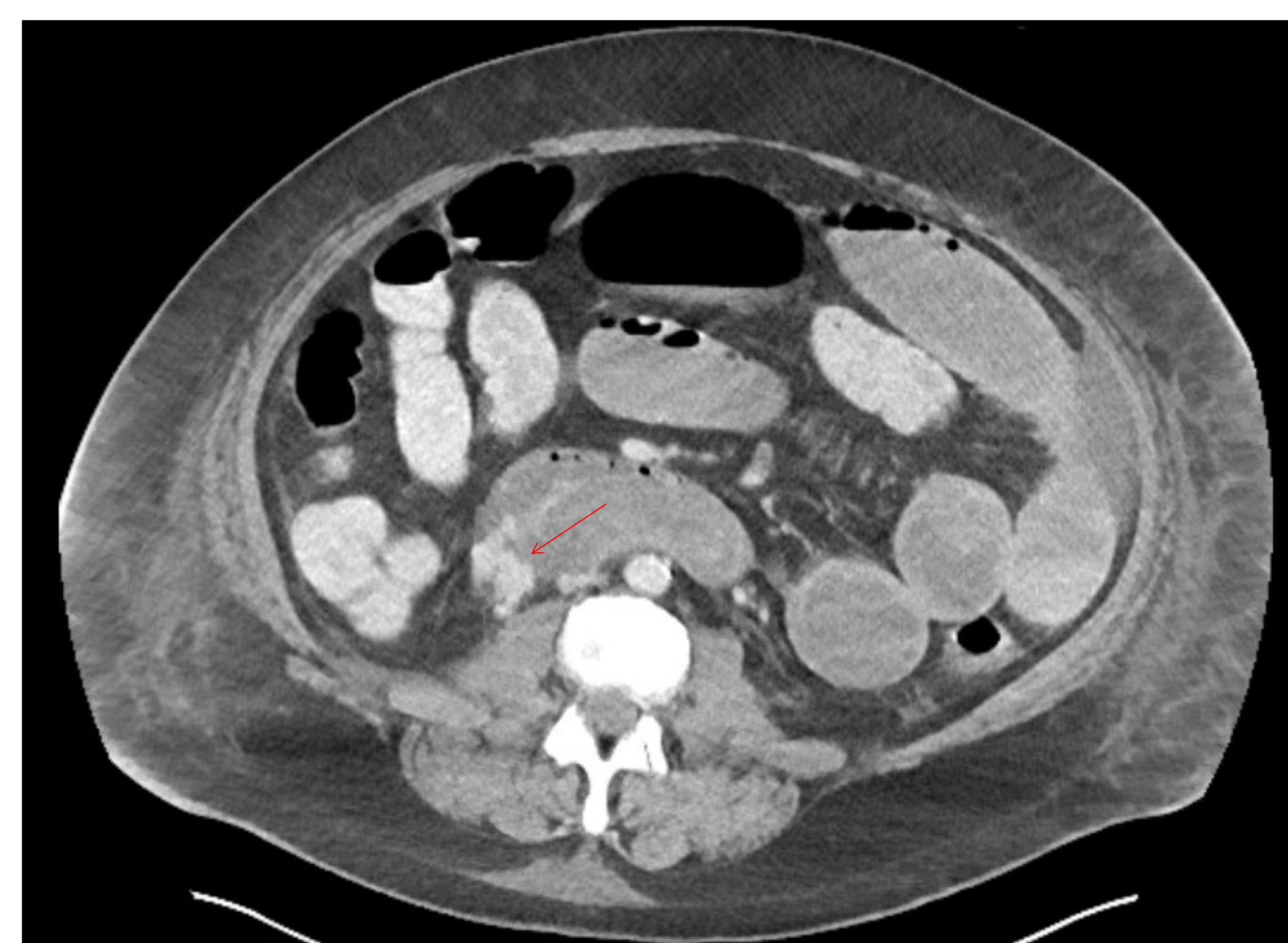


Figure 2: CT angiography showing a large duodenal varix with active hemorrhage into the second portion of the duodenum (red arrow).

## Discussion

- In patients with cirrhosis, it can be difficult to determine the etiology of an upper GI bleed due to the presence of large portosystemic venous collaterals in the setting of portal hypertension.
- Ectopic varices located in the duodenum are rare but when bleeding occurs, it is often life-threatening.
- Although currently there is no definitive treatment, the most effective therapeutic modalities reported in the literature include endoscopic sclerotherapy and band ligation, balloon-occluded retrograde transvenous obliteration and transjugular intrahepatic portosystemic shunt.
- Our case highlights the importance of differentiating between variceal and non-variceal bleeding in determining the optimal therapeutic approach to achieve hemostasis.
- Physicians should remain vigilant for ectopic varices in patients with cirrhosis and peptic ulcer disease due to the risk of variceal bleeding.

## References

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