Bleeding Duodenal Ulcer

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Clinical History:

- 59-year-old male with end-stage renal disease presents with coffee ground emesis and melena x 1 day
On the arterial phase image, amorphous high attenuation material is noted in the first duodenum (arrow). Attenuation values are similar to that of the aorta. No corresponding high attenuation is seen on the unenhanced phase. Finding is not readily apparent on the venous phase. Bleeding was treated with trans-arterial embolization and follow up endoscopy identified an ulcer in the first duodenum.
Teaching Points:

- Evaluating both arterial and venous phase images together provides optimal sensitivity for active hemorrhage.
- Intraluminal enhancement that changes attenuation and shape between contrast phases is specific for active hemorrhage.
- In this case, the active hemorrhage is not well visualized on the venous phase, necessitating identification on the arterial phase.
References

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1. What is the most common etiology for upper GI tract bleeding?
2. What is the most specific imaging finding for active hemorrhage?