

Introduction

- Hematemesis and melena in a pediatric patient indicates an upper gastrointestinal bleed.
- Hematemesis is the most common symptom at presentation at 73%, while melena is present at 21% and coffee ground emesis at 6% [1].
- Incidence of UGIB in the pediatric population is 6.4%, three times more likely than lower GI bleeding, commonly characterized by bright rectal bleeding [2].
- Although UGIB can resolve spontaneously, mortality rates due to UGIB have been measured between 5% - 21% and therefore require immediate intervention [3].

Case Presentation

- A previously healthy, breastfed 5 month old male initially presented to the ER with 1 episode of hematemesis. He was otherwise well-appearing.
- The patient had an unremarkable CBC and was started on IV protonix. After no further episodes overnight, he was discharged in stable condition with a PPI prescription for 1 month.
- Three days later, he returned with a 3 day hx of tarry, black stools. Parents reported 9-10 episodes of bright red hematemesis two days prior.
- His mother mentioned her nipples had been cracked and bloody, so she transitioned to expressed breastmilk that was not pink or red in appearance.
- Tarry stools persisted after admission. Both EGD and CTA were unable to identify a source of bleeding. His hemoglobin and vitals remained stable.

Case Presentation continued

- Stool studies were positive for occult blood and EPEC, which does not commonly present with bloody stools.
- After 3 inpatient days, he received a tagged red blood cell nuclear medicine study with unremarkable results (Fig 1).
- His parents reported that the melena resolved around this time as well. Workup was unable to ever identify an active source of gastrointestinal bleed.

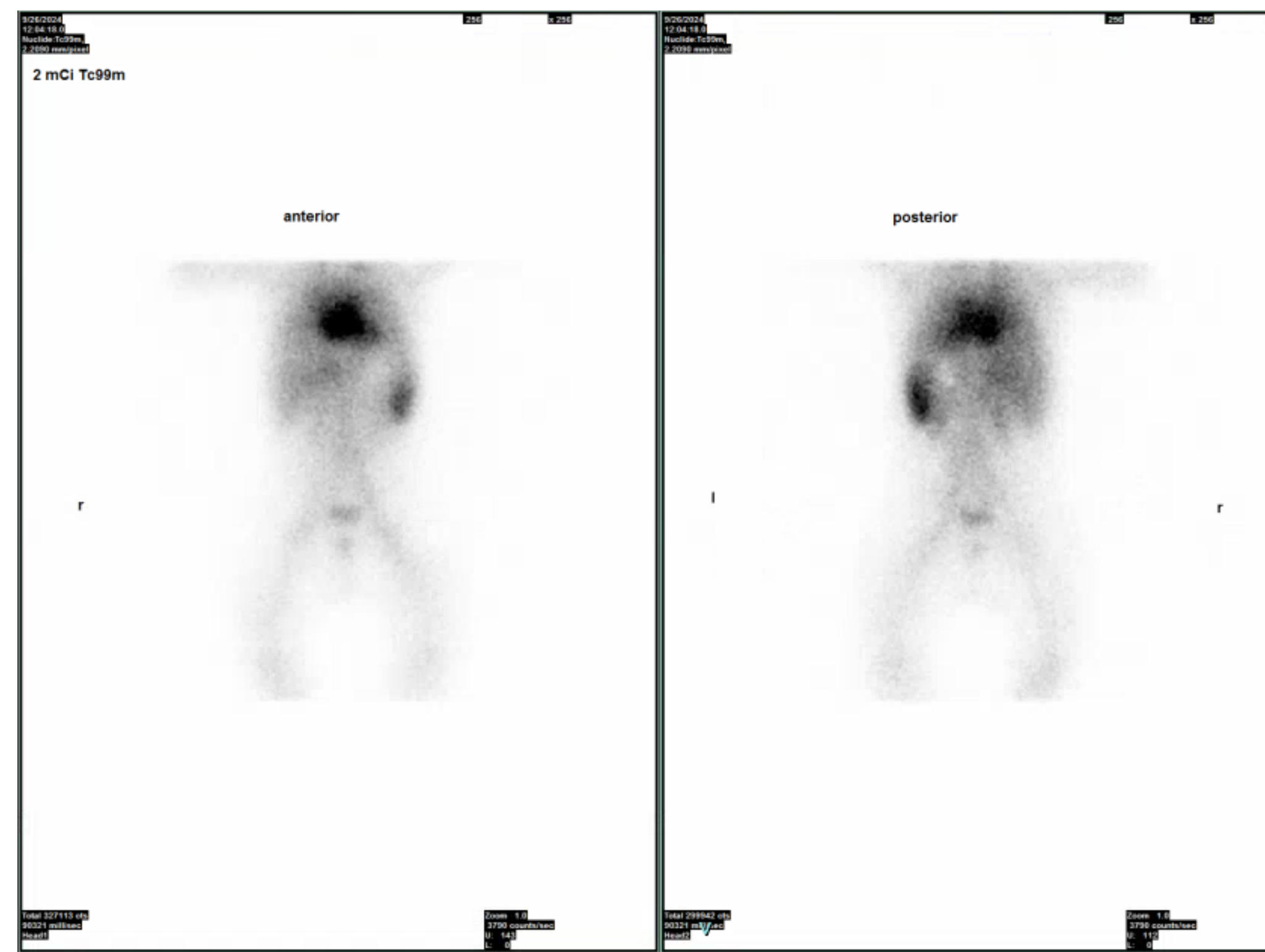


Figure 1: Tagged Red Blood Cell Scan

Discussion

- UGIBs in the pediatric population are diverse and require different pathways of management and investigation.
- In infants, etiologies include cow's milk protein allergy, esophagitis, gastritis, vascular malformations, foreign body ingestion, esophageal varices, and ulcers [1, 3].
- Non-GI sources of bleeding, such as maternal blood or nasopharyngeal blood, can mimic UGIB [3].
- Severe bleeding can lead to hypovolemic shock requiring aggressive fluid management, anemia requiring transfusion, and airway instability requiring intubation.

Discussion continued

- In stable patients, acid suppression using PPIs is indicated even before a bleeding source is identified [4, 5].
- Endoscopy is often able to identify the source of bleeding, however, in cases where endoscopy fails, tagged red blood cell nuclear medicine and CT-angiography studies can assist [4].
- While a source of bleeding was not able to be on workup, the patient has close follow-up with outpatient GI clinic and provided return precautions if episodes recur.

Conclusion

- We present a pediatric patient with an unknown source of recurrent upper gastrointestinal bleeding. This case highlights the importance of continued management of melena and hematemesis despite unidentified etiology of UGIB.

References

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3. Owensby, S., K. Taylor, and T. Wilkins, *Diagnosis and Management of Upper Gastrointestinal Bleeding in Children*. The Journal of the American Board of Family Medicine, 2015. **28**(1): p. 134-145.
4. Polat, E., et al., *Pediatric upper gastrointestinal bleeding in children: etiology and treatment approaches*. Journal of Emergency Practice and Trauma, 2020. **6**(2): p. 59-62.
5. Kocic, M., et al., *Age-specific causes of upper gastrointestinal bleeding in children*. World Journal of Gastroenterology, 2023. **29**(47): p. 6095.