Hemorrhagic Shock as Complication of Meckel's Diverticular Bleed

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Introduction

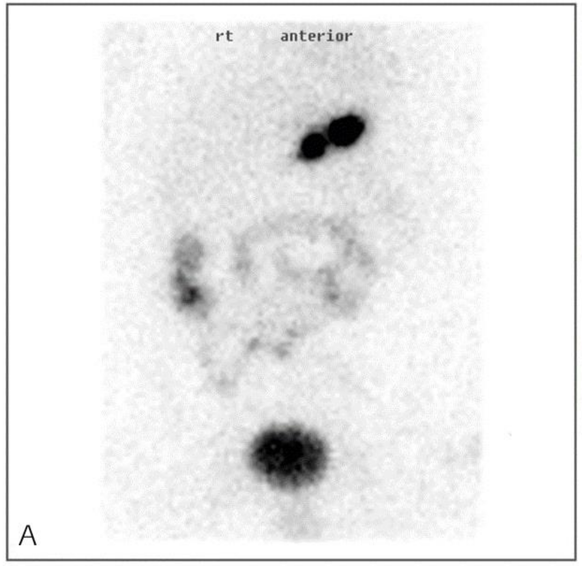
- Meckel's diverticulum (MD) is the most common congenital gastrointestinal tract abnormality
- Result of incomplete closure of the omphalomesenteric duct
- This can often manifest as painless hematochezia in children (under 10 years age)
- Adults can have more serious manifestations, including obstruction, perforation, or severe hemorrhage

Case Report

- A previously healthy 18-year-old male presents to outside children's hospital with abdominal pain and large volume hematochezia
- Presented five days prior with similar set of symptoms and resulting EGD and colonoscopy nonrevealing for bleeding foci
- Vitals: Hypotensive, tachycardic
- Exam: Epigastric tenderness, orthostatic instability, documented at least 900mL rectal blood loss
- Labs: Hgb reached a low of 7.1
- Activation of massive transfusion protocol and vasopressor support
- Transferred to our facility for further management
- We performed CT angiogram, which was nonrevealing
- Subsequent technetium pertechnetate 99m (Meckel's) scan (Figure A) obtained to further elucidate bleeding etiology, which revealed MD

Case Report (cont)

- MD was resected without complication and pathological evaluation (Figure B) revealed gastric heterotopia
- Recovery uneventful



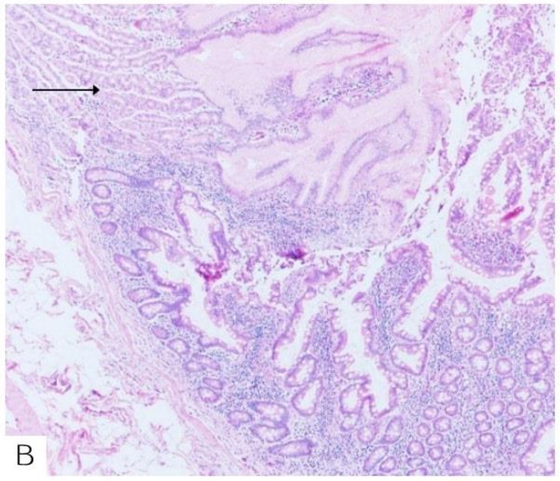


Figure A: Meckel's scintigraphy with technetium pertechnetate 99m revealing solitary focus of increased uptake in the right lower abdomen, detecting gastric mucosa
Figure B: Histopathologic confirmation of gastric tissue (arrow) embedded within normal small bowel tissue in bottom half of image (H&E stain, x40)

Discussion/Conclusion

- MD often presents with painless hematochezia in children, but MD in adult populations can have severe manifestations
- These include obstruction (36.5%), intussusception (13.7%), and hemorrhage (11.8%)
- In our case, the source of bleeding was unable to be localized with upper gastrointestinal endoscopy, colonoscopy, or CT angiography
- The Meckel's scintigraphy radiographically diagnosed the presence of MD, as the tracer has an affinity to gastric mucosa
- This scan has a sensitivity of 60% in adults
- Subsequent surgical removal and histopathologic review of specimen confirmed presence of MD
- In the right clinical context (i.e young male with otherwise negative workup), clinicians should maintain a clinical suspicion for a MD

References

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