Bleeding GIST Treated Successfully With Hemospray in a Patient With Neurofibromatosis Type 1

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Introduction

- Gastrointestinal stromal tumors (GIST) are most commonly found in the stomach; however, they can be found in the intestines. Bleeding from a GIST is incredibly common and one of the most dangerous complications[1]

Case

- A 47-year-old man with a past medical history of chronic anemia, GI bleed, neurofibromatosis type 1, GIST status post chemotherapy, presented to ED with complaints of productive cough and three weeks of ongoing shortness of breath. The patient denied other symptoms besides diaphoresis, tachypnea, tachycardia, and fatigue
- Heart rate 120bpm, respiratory rate 22/min and other vital signs were stable. Transfused 4 units of packed RBC to bring hemoglobin from 2.2 g/dL to 7.7 g/dL

Clinical Course

- On Hospital day 2, hemoglobin dropped to 5.5 g/dL, requiring one more unit of pRBC.
- CT of abdomen demonstrated a central abdominal small bowel mass measuring approximately 6 x 5.3 x 5.2 cm with abnormal intraluminal serpiginous enhancement, suggesting active extravasation
- IR and surgery evaluated the patient and deemed him to be a poor candidate for embolization and Whipple procedure, respectively
- GI evaluated patient and agreed to push enteroscopy, discovering a large, actively bleeding, ulcerated mass in the submucosa (Image 1)
- Epinephrine failed to stop the bleed (Image 2). Use of Hemospray successfully achieved hemostasis (Image 3)
- The patient remained in the hospital for 11 days. After the patient's hemoglobin remained stable for 24 hours, he was discharged home and was referred to surgical oncology for definitive resolution

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Images

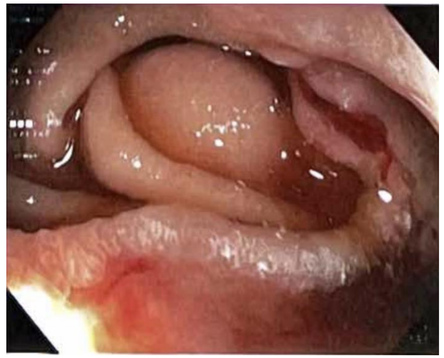

Image 1. Large submucosal and ulcerated mass with bleeding was found in the fourth portion of the duodenum

Image 2. Injection with 10 mL of 1:10,000 solution of epinephrine failed to stop bleeding

Image 3. For hemostasis, hemostatic spray was deployed. Multiple sprays were applied. Hemostasis was successfully achieved

Discussion

- Emergent and long-term management of GIST bleeding requires surgery[2]; however, the patient was a poor candidate for bowel resection given his past medical history
- The risks of performing emergent surgery outweighed the potential benefits
- IR deemed embolization an inadequate treatment plan due to suspected multivessel involvement
- Hemospray stopped active bleeding; whereas, initial epinephrine injection did not
- Hemospray cannot be considered a long-term treatment for GIST bleeding

Conclusion

- This case demonstrates Hemospray's efficacy in halting tumor related gastrointestinal bleeding and can function as a temporary bridging method until definitive treatment can be performed

References

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