

Recurrent GI Bleeds: Repeated Endoscopy or Watchful Waiting?

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Story from the front lines:

A man in his 70s with a history of LVAD placement was being seen by a home health aid when it was discovered he had a hemoglobin of 5 and INR of 8. It was recommended that urgent evaluation occur in the emergency department. During initial assessment, there were no overt signs of blood loss. Chart review revealed significant history of GI bleeding thought secondary to his LVAD which can put patients at risk for vascular malformation of the gastrointestinal tract.^[1] Consistent with the natural history of vascular malformations (rapidly forming, rapidly receding), all endoscopic evaluations had been negative previously. With conservative management (pRBCs and correction of INR with vitamin K), prior episodes typically resolved over several days with improvement of hemoglobin levels and stabilization on his INR.

During this admission he received several units of pRBCs for dropping hemoglobin, however, there was no compelling evidence of active blood loss aside from conflicting reports of melanic stools. It was decided, therefore, to do an upper endoscopic evaluation, which was unremarkable. Video capsule endoscopy followed and showed no source of bleeding. In the end, the patient's hemoglobin rebounded as well as his INR, and he was discharged home.

Teachable moment:

When evaluating an upper GI bleed, the initial points of care include monitoring vital signs, trending hemoglobin values, evaluating for signs of blood loss, and discerning the mental state of the patient.^[5] The goal: to identify and intervene upon active bleeding. In regards to recurrent bleeding, the American Society for Gastrointestinal Endoscopy recommends repeat endoscopy; however, the science regarding complicated patients like ours is not clear cut.^[2] It must be understood that in patients with LVADs the risk for GI bleeding is pronounced, owing to the altered hemodynamics and increased incidence and prevalence of vascular malformations.^[4] In these patients, GI bleeds, whether overt or occult, are common, particularly in the first several months after implantation. Many times the etiology is identified and treated, however, due to the natural history of vascular malformations, these lesions may be hard to locate. In short, when dealing with a patient with an LVAD and prior negative endoscopic evaluations, we must be judicious in our management as they often don't follow a typical course of GI bleeding.³ What is more is these malformations are often located at points in the gut that are not easily visualized by traditional endoscopic methods, requiring (at times) more invasive techniques. You have to decide whether a repeat endoscopic procedure in a heart failure patient is warranted, versus watchful waiting, by monitoring vital signs, transfusing as appropriate, and trending hemoglobin levels.

Regarding our patient, it was difficult to ascertain what was and wasn't a threatening bleed. On one hand, he had a history of multiple GI bleeds with dangerously low hemoglobin levels coupled with possible melena. However, he also had shown stabilization of blood counts with supportive care. In short, this patient was high risk given his cardiovascular status who underwent several, unremarkable endoscopies (after hemoglobin had stabilized above 7 and normal vitals), and showed spontaneous recovery following pRBC transfusion and correction of INR. There comes a point in patient management when doing less is doing more, particularly in patients that have fragile cardiovascular hemodynamics. Additional evaluation means more sedation and intestinal manipulation, which can mean higher risk of infection and bleeds.

In summary, in high-risk patients with known risk factors for a GI bleed, who have undergone significant, negative workups in the past and resolution of bleed with supportive care, it may be preferable to implement a watch and wait approach when caring for these patients as opposed to exposing them to potentially harmful interventions that could worsen outcomes.

[1] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4229467/>

[2] https://www.asge.org/docs/default-source/education/practice_guidelines/doc-b4349a10-9b72-463e-ac70-f394c7aa20b4.pdf?sfvrsn=6

[3] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4858637/>

[4] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4229467/>

[5] <https://www.uptodate.com/contents/approach-to-acute-upper-gastrointestinal-bleeding-in-adults#H5079565>