Prevention of Recurrent Lower Gastrointestinal Hemorrhage

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KEYWORDS

• Lower GI bleeding • Prevention of recurrent LGIB • Diverticular bleeding
• Angioectasia • Chronic hemorrhagic radiation proctopathy
• Postpolypectomy bleeding • Endoscopic therapy

KEY POINTS

- The majority of diverticular bleeding self-resolves, but the risk of recurrent hemorrhage remains high. Diverticula with high-risk stigmata (active bleeding, nonbleeding visible vessel, or adherent clot) are particularly prone to rebleeding and should be endoscopically treated.
- Argon plasma coagulation (APC) is a proved and safe modality for the treatment of angioectasia, but rebleed rates remain high.
- Chronic hemorrhagic radiation proctopathy is amenable to endoscopic therapy, preferably APC. Given the potential associated morbidity, however, endoscopic therapy should be used judiciously.
- The practice of placing clips after endoscopic mucosal resection (EMR) of polyps to avoid delayed bleeding remains contentious. Yet, there may be utility in clipping, particularly for large lesions or for individuals requiring anticoagulation after polypectomy.
- Nonsteroidal anti-inflammatory drugs (NSAIDs) should be discontinued, if possible, especially in cases of lower gastrointestinal bleeding (LGIB) due to diverticulosis and angioectasia, due to the high rebleed risk. Aspirin should be continued if medically indicated. The management of other antiplatelet agents or anticoagulants must be tailored to the patient and often requires a multidisciplinary approach.

INTRODUCTION

Lower gastrointestinal bleeding (LGIB) encompasses all bleeds involving the colon extending from the ileocecal valve to the anus.[1] Overt LGIB most commonly manifests as hematochezia but may also present as melena in proximal colonic bleeds.[2] The major modality for diagnosing the etiology of LGIB is colonoscopy, which allows for direct

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visualization of the colonic mucosa and the ability to perform immediate therapeutic maneuvers to achieve hemostasis.[2] Alternatively, imaging studies, including CT angiography (CTA) with catheter-directed embolization, may be used, particularly in situations where there are barriers to endoscopic evaluation.[2] These barriers include significant comorbidities, clinical instability in which patients are unable to undergo sufficient bowel preparation,[2] patient or family preference, and ongoing obscure bleeding despite endoscopic evaluation.[3]

Radiologic studies, such as tagged red blood cell radionuclide scans are relatively sensitive for the presence of gastrointestinal (GI) bleeding, with the ability to identify bleeding that is occurring at rates as low as 0.1 mL/min.[1] In addition, this study may be performed several times over the course of a day if there is difficulty identifying the etiology of an intermittent bleed.[1] Radionuclide scans, however, are a blunt diagnostic tool and can only suggest the general region of a bleed, which limits its utility.[1]

Alternatively, mesenteric angiography may detect bleeding at rates greater than 0.5 mL/min and allows for therapeutic intervention with catheter-guided embolization or injection of vasoactive substances.[1] The major downsides are that there is a non-negligible incidence of colonic infarction with therapy[1] (**Fig. 1**) as well as risk of contrast-induced nephropathy.[4]

REBLEED RISK

LGIB is a frequent condition, resulting in the hospitalization of 21 per 100,000 individuals each year,[4] and carries a significant risk of recurrence.[3] Predisposing determinants of recurrent LGIB include the modality used to achieve primary hemostasis[5]; the use of antiplatelet agents, nonsteroidal anti-inflammatory drugs (NSAIDs), and anticoagulants[5]; the presence of end-stage renal disease or cirrhosis[5]; and the etiology of the initial bleed.[2] It is not well established what the proportionate impact of these individual characteristics is on the incidence of recurrent bleeding.[5]

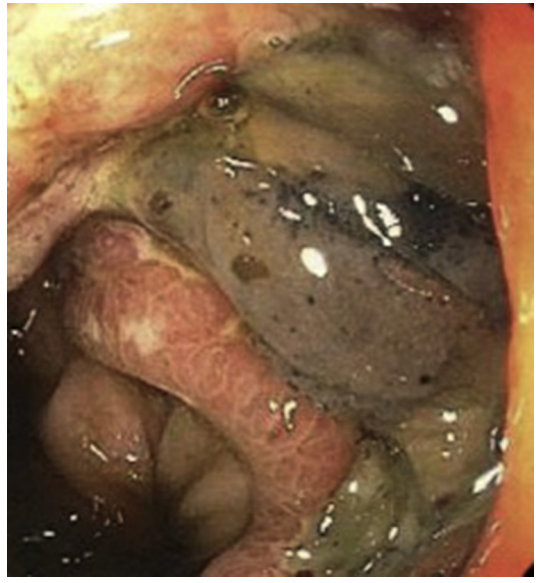

Fig. 1. Evidence of colonic ischemia after transcatheter glue embolization of the left colic artery for persistent diverticular bleeding.