**CLINICAL VIGNETTE**

# Anemia Caused by Bleeding Internal Hemorrhoids

Jonathan Balakumar, MD and Kathleen Yip, MD

***Case Presentation***

A 28-year-old male presented to the Emergency Department (ED) for four months of rectal bleeding, fatigue, and dyspnea. The patient reported multiple episodes of hematochezia with and without stool.

On examination he was slightly hypertensive at 147/66 mm Hg, with a heart rate of 87 bpm. His heart rate increased to 110-120 bpm with activity. Physical exam was notable for conjunctival pallor, pale nail beds and tongue. Rectal exam showed no blood in the vault or melena.

Intravenous hydration was initiated immediately with infusion of one liter of lactated ringers. He was typed and crossed matched with subsequent infusion of blood products in the emergency department (ED).

The patient was diagnosed with anemia induced by multiple grade three internal hemorrhoids, diagnosed on colonoscopy. No other sources of hemorrhage were identified. His initial hemoglobin was 4.1 g/ dL and he required multiple transfusions; three packed red blood cells (pRBC) while in the ED and further transfusions once he was transferred to the progressive care unit (PCU). The patient underwent banding and was subsequently discharged after his symptoms resolved.

***Discussion***

Acute lower gastrointestinal bleeding (GI) may be characterized as anatomic, vascular, inflammatory or neoplastic in origin. Common causes of lower gastrointestinal bleeding that can induce anemia are brisk upper gastrointestinal bleed, diverticulosis, neoplastic origin, and inflammatory bowel disease.

Initially the patient was thought to have diverticulosis or a neoplastic cause of his lower gastrointestinal bleed. Bleeding hemorrhoids are an infrequent cause of anemia, however there have been prior case reports.[1,2] Patients with lower GI bleeding present with hematochezia, which may also be present in massive brisk upper GI bleeding. Lower GI Bleeding resolves spontaneously in 80-85% of cases.[3] Patients with rectal bleeding should be risk stratified and high-risk features include hemodynamic instability, persistent bleeding, and comorbidities.[4]

In the ED, supportive measures should be initiated, such as the insertion of large bore intravenous access and nasal oxygen cannula. Administration of oxygen can reduce heart rate and strains.[5] Patients should be resuscitated with fluids while awaiting blood transfusions.[6] Resuscitation with blood should be individualized, transfusion targets consider lab values, age, and comorbidities.[7] Coagulopathies should also be addressed with treatment of appropriate reversal agents.[7]

Once a patient is appropriately stabilized and an upper gastrointestinal source of bleeding is excluded, colonoscopy is the diagnosis and treatment of choice for acute lower GI bleeding.[8] Other modalities can be utilized such as radionuclide imaging, computer tomographic (CT) angiography and mesenteric angiography. Colonoscopy allows for direct visualization of the bleeding source with possible therapeutic intervention.[9]

Hemorrhoidal bleeding is generally painless, and may be associated with bowel movements. However, some patients may be asymptomatic.[10] The blood is bright red and coats the stool during defecation. Interestingly, hemorrhoids rarely lead to chronic blood loss, and can cause iron deficiency anemia with accompanying symptoms of fatigue, and weakness.[1]

***Conclusion***

Our patient developed symptomatic anemia caused by persistent bleeding from multiple internal hemorrhoids. He required multiple transfusions and banding. It is important to evaluate other causes of anemia even when hemorrhoidal bleeding is present. Once other emergent causes have been ruled out, treatment for the hemorrhoid can commence.

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