

Question 24 – January 13

A 77-year-old African American man with a past medical history of diabetes, hypertension, chronic renal failure on hemodialysis and coronary artery disease is admitted to the intensive care unit with evidence of sepsis from an infected shunt. Over the ensuing 5 days in the intensive care unit he has fevers, chills, diaphoresis and evidence of MRSA. However by day 6 he appears to respond with slight improvement in his hypotension and mental status. However on day 7 he develops acute hematochezia and some mild mental status changes. A GI consult is placed as laboratory tests are obtained.

At the time of the event he denies any abdominal or rectal pain. He's had no difficulty with constipation or diarrhea. He surprisingly has no prior history of GI tract bleeding and is not on anticoagulation at this time. He has a 50-pack-year smoking history but is a nondrinker and denies recreational drug use. There is no family history of peptic ulcer disease or inflammatory bowel disease. He has not recently used any enemas or undergone other manipulation of anorectal canal.

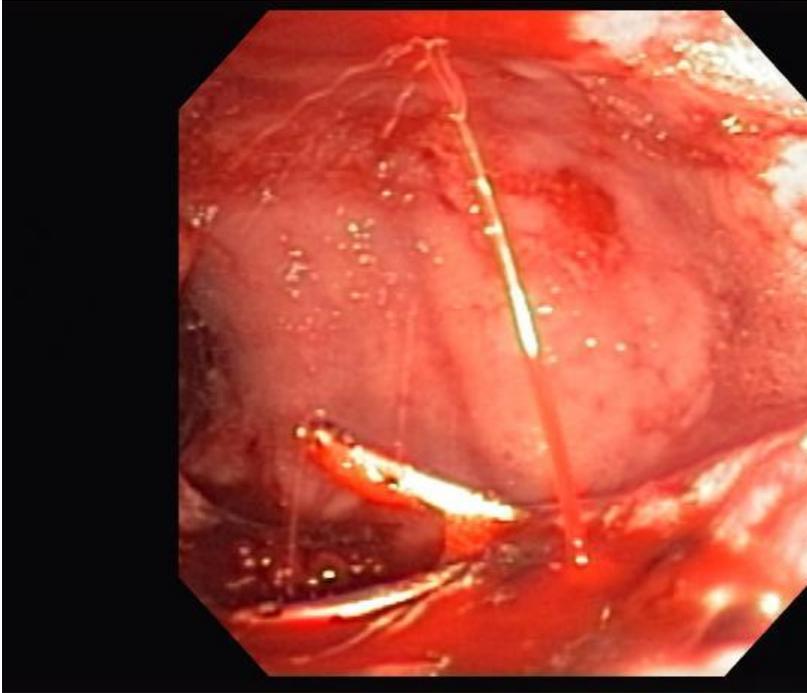
Hemoglobin is found to be 5.9 gms down from a baseline of 8.1 gms. Indices are normal. His a white count of 10.7 down from a maximal white count on admission of 24.2. His BUN is 60 with a creatinine of 4.3 and this is stable from day 3. C. difficile PCR has been negative at the initiation of the admission and 44 hours ago. Other labs are unremarkable.

Resuscitative efforts are begun with IV saline, 2 unit blood transfusion and an attempt to place an NG tube. The latter fails as the patient is combative and attempts are halted.

You arrive in the intensive care unit and physical exam reveals a slightly confused and somewhat agitated African American man in some distress. His blood pressure is 110/70 with a pulse of 100. The HEENT exam reveals no evidence of epistaxis or blood in the oral cavity. The neck is supple, lungs are clear both anteriorly and posteriorly and the CV exam reveals an S4 but is otherwise unremarkable. The abdominal exam reveals a somewhat firm but nondistended abdomen with no pain even on deep palpation. There is no organomegaly, no bruits and bowel sounds are hyperactive. The rectal exam reveals bright red blood and occasional clot mostly in the bed. Plans are made for urgent colonoscopy with a rapid 4 L purgative. The patient begins the bowel prep as you continue rounds.

Approximately 90 minutes later your team was called back to the ICU by the resident who states the patient has suddenly become less responsive and more confused, and has developed a blood pressure of 70/20 mmHg. He states that the nurses noted more profuse bleeding from the rectum. Upon returning to the bedside you complete a second digital rectal exam and noticed a large quantities of bright red blood spurting from the rectum and a bed full of clots. As further units of blood are hung, pressors started, a central line placed and the patient intubated you plan on emergent colonoscopy. Once the ICU staff allows you to proceed you inserted a colonoscope and immediately notice the lesion shown in the figure below. In addition to the ulcer with the spurting blood vessel there were several other ulcers noted just above the anal ring. You quickly advance to approximately 50 cm and noticed as you leave the rectum the blood becomes darker in color and the underlying mucosa appears healthy. The only bright red blood you notice is in the rectum. Upon returning to the rectum you notice a possible visible vessel in one of 3 rectal ulcers and upon contact with the edge of the colonoscope it begins to spurt with pulsations.

See photo



The most likely diagnosis for this lesion is

- A. Herpes simplex virus proctitis
- B. Acute hemorrhagic rectal ulcer syndrome (AHRUS)
- C. Solitary rectal ulcer syndrome. (SRUS)
- D. Radiation proctitis
- E. Ischemic proctitis.

Answer: B

This patient presents with symptoms and signs of very consistent with the acute hemorrhagic rectal ulcer syndrome. This syndrome characterized by multiple rectal ulcers and is almost always associated with acute life-threatening hemorrhage. It is seen mostly in patients after somewhat prolonged intensive care unit stays with significant comorbidities such as respiratory failure, renal failure, diabetes mellitus or atherosclerosis. In recent studies almost 40% of patients present with hemorrhagic or hypovolemic shock. Endoscopic therapy is successful in controlling bleeds in over 97% of patients. 50% however will rebleed within 4 weeks so surgical suturing of the base of the bleeding ulcer is often advised. Therefore a combined endoscopic and bedside surgical approach via a rigid anoscope is often necessary. The use of anticoagulants after control of the bleeding is highly associated with rebleeding.

This is not likely to be herpes simplex as a diffuse proctitis was not noted rather than an isolated ulcer near the anal canal. The patient has no history of radiation proctitis and life-threatening

hemorrhage of this sort is not seen in this condition which is typically not characterized by visible vessels and arterial bleeds but rather bleeding from angioectasias. Solitary rectal ulcer syndrome does not fit the endoscopic picture because of the multitude of ulcerations. Ischemic proctitis is almost unheard of given the bilateral blood supply of the rectum. This would be an unusual event if the typical watershed areas are healthy as noted in this patient.

References:

1. Lin, Ck et al. *Acute Hemorrhagic Rectal Ulcer: An Important Cause of Lower Gastrointestinal Bleeding in the Critically Ill Patient*. Dig Dis Sci 56(12):3631-7, 2011