**ER Working Diagnosis:**

**ER Course**

**History of Present Illness**

- Diverticulosis on two prior colonoscopies
- Chronic kidney disease
- Post left total hip arthroplasty performed three weeks prior to presentation; no other NSAID, antiplatelet or anticoagulant use
- No fever, cough, chest or abdominal pain, hematemesis, melena, hematochezia, or hematuria
- Labs on admission
  - Vital signs: Blood pressure 81/49, HR 60, RR 18, SPO2 100%
  - Temperature: 100.0°F (37.2°C)
  - White blood cell count 13.9 × 10^9/L
  - MCV 88.8 fl
  - Lactate 0.8 mmol/L
  - Troponin HS 2.4 ng/mL
  - Iron panel: B12, folate, DHEA, and haptoglobin were normal

**Labs and Imaging**

- MCV 88.8 fl
- Lactate 0.8 mmol/L
- Troponin HS 2.4 ng/mL
- Iron panel: B12, folate, DHEA, and haptoglobin were normal
- Colonoscopy, advised HD3 and performed HD5, revealed diffuse moderate diverticulosis with stigmata of recent bleeding
- Repeat EGD 1 performed HD2B and showed a single oozing superficial duodenal ulcer and diminutive nonbleeding gastric erosions
- Hospital Day 4: Admitting Medicine team suspected left thigh hematoma as the primary bleeding source and consulted Orthopedic Surgery. Hip imaging showed a left thigh hematoma

**ER Arrival**

- MCV 88.8 fl
- Lactate 0.8 mmol/L
- Troponin HS 2.4 ng/mL
- Iron panel: B12, folate, DHEA, and haptoglobin were normal

**Hemoglobin Trend**

- Initial blood counts on admission: HD 0 7.3 g/dL, HD 1 8.2 g/dL, HD 2 8.2 g/dL, HD 3 8.1 g/dL, HD 4 8.1 g/dL, HD 5 8.5 g/dL, HD 6 8.6 g/dL
- Hemoglobin level (g/dL)

**Hospital Course**

- **Hospital Day 0:** Admitting Medicine team suspected left thigh hematoma as the primary bleeding source and consulted Orthopedic Surgery. Hip imaging showed a postoperative seroma and incidental fracture. Gastroenterology was consulted and discovered the patient was passing “dark” stools post-surgery.
- **Hospital Day 1:** Urgent EGD was pursued given suspected upper GI bleed (UGIB) and showed a small oozing superficial duodenal ulcer and diminutive nonbleeding gastric erosions
- **Hospital Day 2:** After passing several black and then bright red stools overnight, the patient became hemodynamically unstable (post-transfusion hemoglobin 8.2 g/dL → 6.0 g/dL)

**Discussion**

- **Factors Likely Contributing to a Delayed Diagnosis in This Encounter**
  - Initial physical exam findings (thigh edema) were likely overvalued
  - ER providers’ concerns for lower GI bleed (LBIB) were dismissed in favor of a low-yield evaluation to exclude left thigh hematoma
  - “Mechanizing” on an upper GI bleeding source (UGIB)
  - Confirmation of an UGIB (Doctor’s Razor) may have biased clinicians against pursuing a second diagnosis (Hickam’s Dictum)
  - Suboptimal weighing of data as evidenced by failure to pursue early colonoscopy despite severe anemia and known chronic diverticulosis
  - Life-threatening anemia attributed to subacute EGD findings
  - Second EGD prioritized over colonoscopy despite interval hematochezia being potentially pathognomonic for LBIB
  - Suboptimal collaboration & shared decision-making among teams
  - Differential diagnosis not expanded to diverticular bleeding by members of the primary or consulting teams until HD3
  - Possible over-reliance on consultants to drive diagnostic evaluation by primary Medicine team
  - Barriers to non-urgent weekend procedures

**Conclusions**

- **Final diagnosis of concurrent UGIB inappropriately delayed**
  - Historical and initial diagnostic data suggested >1 distinct bleeding source
  - Diagnostic process likely hindered by flawed clinical reasoning during the early hospital course and suboptimal collaboration among teams
- **Same-day EGD and colonoscopy may have expedited care**
  - Cost effective; well tolerated in older adults (age ≥65)

**Acknowledgments**

- This study was supported by R01HS027369; Moore Foundation #8856
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**References**

- Sharran (Nickie) Burney: sburney@bwh.harvard.edu
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