Evaluation and management of non-urgent GI bleeding in clinic

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Disclosures

• I have no disclosures relevant to this presentation

Goals

• Review strategies for categorizing GI bleeding
• Identify key clinical findings to narrow our differential
• Review initial management of common GI bleeding situations
• Discuss how to identify situations that necessitate urgent patient triage
GI bleeding

• Among my least favorite terms used in patient presentation
• Provides almost no useful information
• Can be easily replaced by meaningful terminology
• Implies that the presenter lacks understanding of basic concepts of bleeding severity and treatment

Categorization of bleeding

• Several methods
• Location in GI tract
  • Upper (esophageal, gastric, duodenal)
  • Mid bowel (jejunum, ileum)
  • Lower (colon, anal)

Categorization of bleeding

• Severity
  • Massive (hemodynamic instability, requires emergent identification and treatment)
  • Large volume (notable / concerning for patients, urgent evaluation)
  • Moderate volume (drop in hgb over weeks, expedited outpatient evaluation)
  • Low volume (little if any drop in hgb, directed evaluation and treatment, patient reassurance)
• This allows for an easier triage strategy (Should my level of concern be high, moderate or low)
• History is crucial for appropriate evaluation
Initial evaluation / presentation

• Massive bleeding / Potential massive bleeding (can be fatal if missed)
• Etiologies
  • Aortoenteric fistula
  • Variceal (esophageal, gastric)
  • Erosion into large caliber vessel (PUD, malignancy)

Initial evaluation / presentation

• Massive bleeding / Potential massive bleeding (can be fatal if missed)

• Patient presentation
  • Signs / symptoms of hemodynamic instability
  • Diaphoresis, pallor, weakness, feeling uneasy / unwell
  • Hypotension, tachycardia (can be masked by meds)
  • Large volume hematemesis (exorcist type)
  • Large volume hematochezia (from rapid transit of upper GI source)
    • Difference between a cup full and turning on a spigot
  • Pain is not a necessary component

Initial evaluation / presentation

• Large volume (significant hematemesis, melena, hematochezia)
• Etiologies
  • PUD, Dieulafoy, variceal, diverticular (NOT diverticulitis), post-intervention
    (recent polypectomy or other GI intervention)
• Patient presentation
  • More than scant hematemesis, coffee ground emesis, multiple episodes of
    melena or hematochezia
  • Patients typically concerned
  • Tachycardia, hypotension, pale, nausea
Dieulafoy lesion and treatment

Initial evaluation / presentation

- Moderate volume (drop in hgb over weeks, expedited outpatient evaluation)
  - Etiologies
    - Smaller vessel injury
    - PUD, GAVE, PHE, angioectasia, malignancy, inflammatory bowel disease, hemorrhoidal, Boerhaave, Mallory-Weiss
  - Patient presentation
    - Coffee ground emesis, non-large volume melena, hematochezia, BBRPR
    - Anemic particularly if delayed presentation, abd pain in some cases
    - Prior retching, SOB, SQ emphysema

- Low volume (little if any drop in hgb, often chronic, small vessel injury)
  - Etiologies
    - Erosive esophagitis, gastritis, GAVE, portal hypertensive gastropathy, radiation injury (proctitis), hemorrhoidal, fissure
  - Patient presentation
    - Well appearing, can be anemic if chronic presentation
    - Other stigmata of corresponding illness (cirrhosis, prior radiation, constipation)
Initial Clinic evaluation

• Key History
  • Prior radiation, when and where
  • History of AAA or AAA repair
  • Recent endoscopic interventions
  • Any prior endoscopies (hiatal hernia, PUD, angioectasias, diverticulosis, hemorrhoids)
  • Meds: NSAIDs, antiplatelet, anticoagulant use
  • Cardiac valvular ds
  • Cirrhosis

Initial Clinic evaluation

• Physical Exam
  • Signs of anemia – pallor, weakness
  • Signs of liver disease – jaundice, skin angioectasias, ascites, muscle wasting
  • Vitals – HR may be artificially low from meds
  • Rectal exam – melena, maroon, bright red blood, masses. Guaiac for FIT based testing is almost always NOT helpful in this situation, and most Gastroenterologists will cringe when you mention it

Initial Clinic evaluation

• High risk situations
  • Aortoenteric fistula – can be preceded by ‘herald bleed’, be suspicious if large volume bleeding event with negative initial endoscopy. CT [without oral contrast, but needs IV contrast, communicate with radiologist]
  • Variceal bleeding – generally in pts with history of signs of liver ds
  • Boerhaave syndrome
  • Elderly pts, Renal failure
Aortoenteric fistula

Initial lab evaluation
• CBC
  • Hgb/Hct, plt counts obviously important
  • Better if there is a recent / prior comparison
  • MCV can be helpful
  • Note that hgb will not change immediately in case of massive / large volume bleeding, and can take up to 48 hrs to re-equilibrate

Initial lab evaluation
• CMP
  • BUN/Cr – rise in this ratio is highly suggestive of upper / proximal GI source, and decline in renal function is poor prognostic indicator both in cirrhotic pts and across the board
  • AST/ALT can be indicative of he liver dx (but not always)
  • TBil elevation can be indicative of he liver dx
  • Albumin – indicative of severe liver dx, chronic disease
• INR
• Type and cross (if appropriate)
Initial lab evaluation

- Secondary labs (based on relevant history)
  - Peripheral smear, LDH, Fibrinogen, FDP
  - B12, Folate
  - TSH, T4
  - Tumor markers (CEA, PSA, CA 19-9, CA-125)

Prognostic tools

- Rockall score (pre-endoscopy and complete)
  - Need Hgb, Age, vitals, comorbidities
- Glasgow-Blatchford (upper GI bleeding)
  - Need Hgb, BUN, Age, vitals, history
- AIM65 (upper GI bleeding)
  - Albumin, INR, age, vitals, history

Rockall calculator

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<th>Age</th>
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<td>&lt;40 years</td>
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<td>40-79 years</td>
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<td>80+ years</td>
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<tr>
<td>Shock: WBP &lt;80 AND HR &gt;100</td>
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<td>Hypotension (SBP &lt;80)</td>
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<th>Comorbidities</th>
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<tr>
<td>Any comorbidity: OCST renal failure, liver failure, and/or disseminated malignancy</td>
<td>+1</td>
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<td>Renal failure, liver failure, and/or disseminated malignancy</td>
<td>+3</td>
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Initial management

• Start on BID PPI if concern for upper GI source
• Avoid ALL NSAIDs
• Clear liquid intake is ok / good. This will help with avoiding dehydration, and will not delay endoscopic evaluation
• Octreotide IV if concern for variceal bleeding (this would be done in ER or on admission)
• Start antibiotics for cirrhotic patients

When to seek urgent care

• Rapid drop in hgb
• Symptomatic patient
• Clinical presentation suggestive of massive / large volume source
• Frail patient with limited ability to compensate (elderly, chronic disease)
• Cirrhotic patients should elicit focused concern
• You can always call your local Gastroenterologist

After GI evaluation

• NPO if endoscopic evaluation planned
• Bowel lavage if colonoscopy planned
  • If emergent, this will be during hospitalisation
  • Rapid bowel prep – PEG 1-2L/hr until clear. This could mean 4 L, however more typically means 8 or more L. Be proactive. This will only waste everyone’s time if all parties are not conscientious of time management. Metoclopramide, NG placement can help.
Endoscopic treatments

After GI evaluation

- If there are any questions about endoscopic findings or recommendations
- Just ask the Gastroenterologist
- Octreotide can be d/c if non-variceal source
- PPI management will depend on findings
- H. pylori treatment / recheck if appropriate
- When / if need for repeat endoscopy

Summary

- Not all GI tract bleeding is equal
- Use directed history and exam to narrow differential. Location within tract and severity of bleeding are the key items.
  - Significant NSAID use, liver disease, prior e/a, malignancy, valvular ds, UAD
  - High risk entities include aortoenteric fistula, Boerhaave, some PUD, variceal
- Initial labs can be very helpful
  - BUN, Cr, MCV, PS, INR
- Prognostic tools readily available
  - Rockall, GBS
### Summary

- It's ok to call your GI colleague
- Please don't use an occult blood test
- Please have relevant information including rectal exam if relevant
  - If you have to ask yourself if it is ... It is
- Start on PPI if upper GI source concern, start on octreotide if variceal bleeding concern, and start antibiotics if pt has cirrhosis

### questions