Jerome Thomas
Morning Report
3/21/05
HPI

Patient is a 57 m initially was hospitalized at Wayne Memorial 3x in 2 weeks for sob, doe and leg weakness and was noted to have H/H 7/21. Patient transfused and upper and lower endoscopies were performed and revealed duodenal erosions thought to be secondary to plavix/asa. Started on ppi and d/c. Patient subsequently returned with similar complaints and found to be anemic, transfused and egd performed that showed healing of duodenal erosions and fresh blood noted in the ampulla of vater. Patient transferred to Pitt Memorial Hospital.
In Pitt Memorial, Abd. Us performed no evidence of hepatobiliary ductal dilatation. Patient underwent upper endoscopy that showed blood in the ampulla. For concerns about vascular aneurysm, CT of abd/pelvis showed no evidence of vascular aneurysm or hematobilia. ERCP performed showed irregularities of cystic duct. A tagged rbc showed no evidence of gi bleeding and visceral angiography subsequently performed. ? mild vasculitis. Patient subsequently had visceral angiography w/embolization. Rheumatology consult was subsequently obtained and patient started on 40mg prednisone for mild vasculitis.
HPI

- Patient had elevated bleeding time and heme/onc consult obtained and patient found to have platelet dysfunction likely related to asa etiology. For concerns of vasculitis, renal biopsy obtained that showed no evidence of vasculitic contribution. Patient transfused total of 12 units, iv hydration, ppi and 48-hour octreotide drip and transferred to UNC for further evaluation.
Medications

- Labetalol 10mg iv q 4hrs
- Procrit 40k sq q week
- Hctz 25mg po qd
- Lisinopril 10mg po qd
- Nexium 40mg po qd
- Prevacid 30mg po qd
- Prednisone 40 mg po qd
- NPH Insulin 6 qam/ 3 qpm
- Humalog 3 units tid before meals
- Isosorbide Dinitrate 20mg po bid
Past Medical History

- Diabetes
- Chronic Renal Insufficiency
- Anemia
- Hypertension
- L femoral artery stent 5/04 with femoral reconstruction (MVA in 1965 w/L femoral fx. And 7 operations).
- PVD
- 2 CVA’S
Social History

- Lives in Dudley, NC
- Divorced
- Electrician
- H/O EtOH abuse; d/c 15 yrs. Ago
- 40 pack tobacco history; d/c 05/04
- No IVDA
Family History

- **FH : F: Died MI.**
- **M: SLE/Dm**
- *No history of bleeding disorders, colon cancer, IBD or other cancers*
Review Of Systems

- **Constitutional:** No f,c,sweats, wt change or adenopathy
- **HEENT:** No ha/st, nasal d/c, bleeding, voice change, +vertigo, photophobia, no vision/hearing loss or dental problems
- **Skin:** No rashes/lesions
- **CP:** No cp, +sob/doe/edema/pre-syncope no orthopnea, pnd, no claudication, cough, wheezing
Review of Systems

- **GU:** No frequency, urgency, dysuria, hematuria, nocturia;
- **Neuropsych:** No weakness, numbness, depression or anxiety.
- **Ms:** no myalgia’s/arthralgia, joint swelling, deformity or pain
- **GI:** No n/v/d/brbpr/hematemesis, dysphagia, odynophagia, gerd symptoms, abd. Pain or bowel habit changes. Pos. melena
- **Endo:** No polyuria/dipsia/hot or cold intollerance, hair or skin changes
Physical Exam

- 137/67  87  18  36.8  98ra
- Gen-NAD
- HEENT- NCAT,EOMI, sclera clear, TM clear, nares w/o discharge, MMM, dentition fair, oral pharynx w/out erythema or exudate
- Neck- Supple w/o LA, No bruits,
Physical Exam

- CVS- RRR, no m/r/g; nl pmi pulse
decrease in L foot +1, R foot +2
- Lungs- CTA B; no m/r/g
- Skin- No rash/lesions
- Abd- soft, NT/NABS/ no rebounding/guarding, (-)HSM
- Gu- Normal
Physical Exam

- **Rectal**: NST, Heme (+), no mass, non-tender, smooth prostate
- **Ext**: No c/c/e; no rash/lesion/petechiae
- **Ms**: No joint deformity, effusions, no spine or cva tenderness
- **Neuro**: A/o x3; CN 2-12 grossly intact; strength 5/5 all extremities and axial groups, nl sensation throughout, nl cerebellar fxn.
OSH Discharge Labs

- H/h 9/28
- Na 134
- K 4.5
- Cl 102
- Hco3 25
- Bun 99
- Cr. 2.0

- Ca 8.0
- Mg 1.7
- P 3.8
Rare Causes of GI bleeds

Jerome Thomas
3/21/04
Occult Bleeding

Occult bleeding from the gastrointestinal (GI) tract typically is identified by either a positive stool for occult blood or by the presence of iron deficiency anemia on routine laboratory testing. The major cause of iron deficiency in developed countries is blood loss. In men, the blood loss is most commonly from the GI tract; in women, menstrual blood loss must also be considered.
Occult Bleeding

Any lesion can bleed into the GI tract, from the head and mouth to the anus. This includes:

- Epistaxis
- Bleeding gums
- Esophagitis
- Peptic ulcers
- Esophageal and gastric malignancies
- Hemobilia
- Angiodysplasia
- Benign colon polyps
- Inflammatory bowel disease
- Ischemic bowel disease
- Hemorrhoids, and anal fissures.
Common Causes of Lower Gastrointestinal Bleeding

**Anatomical**
- Diverticulosis

**Vascular**
- Angiodysplasia
- Radiation-induced telangiectasia

**Inflammatory**
- Infectious
- Ischemic
- Idiopathic inflammatory bowel disease
- Radiation

**Neoplastic**
- Polyp
- Carcinoma

**Others**
- Hemorrhoid
- Ulcer
- Post biopsy or polypectomy
<table>
<thead>
<tr>
<th>Ulcerative or erosive</th>
<th>Arterial, venous, or other vascular malformations</th>
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<tbody>
<tr>
<td>Peptic ulcer disease</td>
<td>Idiopathic angiomas</td>
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<tr>
<td>Idiopathic</td>
<td>Osler-Weber-Rendu syndrome</td>
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<td>Drug induced</td>
<td>Dieulafoy’s lesion</td>
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<td>Aspirin</td>
<td>Watermelon stomach (gastric antral vascular ectasia)</td>
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<td>Nonsteroidal antiinflammatory drugs</td>
<td>Radiation-induced telangiectasia</td>
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<td>Infectious</td>
<td>Blue rubber bleb nevus syndrome</td>
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<td>Helicobacter pylori</td>
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<td>Cytomegalovirus</td>
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<td>Herpes simplex virus</td>
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<td>Stress-induced ulcer</td>
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<td>Zollinger Ellison Syndrome</td>
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<td>Esophagitis</td>
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<td>Peptic</td>
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<td>Cytomegalovirus</td>
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<td>Miscellaneous</td>
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<td>Pill-induced</td>
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<td>Alendronate</td>
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<td>Tetracycline</td>
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<td>Potassium chloride</td>
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<td>Nonsteroidal antiinflammatory drugs</td>
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<td>Portal hypertension</td>
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<td>Esophageal varices</td>
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<td>Gastric varices</td>
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<td>Duodenal varices</td>
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<td>Portal hypertensive gastropathy</td>
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**Traumatic or post-surgical**

- Mallory-Weiss tear
- Foreign body ingestion
- Post-surgical anastomosis
- Aortoenteric fistula

**Tumors**

- Benign
  - Leiomyoma
  - Lipoma
  - Polyp (hyperplastic, adenomatous, hamartomatous)
- Malignant
  - Adenocarcinoma
  - Leiomyosarcoma
  - Lymphoma
  - Kaposi’s sarcoma
  - Carcinoid
  - Melanoma
  - Metastatic tumor
  - Miscellaneous
  - Hemobilia
  - Hemosuccus pancreaticus
Obscure Bleeding

Second look upper endoscopy or push enteroscopy. (A radionuclide scan or angiography can be considered if the patient is actively bleeding (i.e., obscure overt bleeding) but has contraindications to endoscopy or an endosopist is not available.)

positive

Treat appropriately. This should include consideration of the certainty of the diagnosis as well as the risks and benefits of specific treatment versus continued supportive care with transfusions and iron supplementation.

negative

Second look colonoscopy with intubation of the terminal ileum

positive

negative

Capsule endoscopy

positive

negative

Consider whether continued evaluation is clinically warranted. If yes, consider repeating upper endoscopy and colonoscopy or proceeding to intraoperative enteroscopy. Angiography or radionuclide scanning may be considered if there is active bleeding. If bleeding is less severe, an alternative may be repeating a capsule endoscopy (or upper endoscopy and colonoscopy) in a few months (or earlier if rate of bleeding increases).
Evaluation of Obscure Bleeding

Obscure-occult recurrent or persistent iron deficiency anemia and/or positive FOBT

- Actively bleeding?
  - No
  - Nuclear scan ± angiogram
    - Repeat routine endoscopy
      - Enteroscopy ± enterolysis or small bowel series
        - Positive
        - Specific management
        - Negative
          - Is further work-up needed? Assess risks/benefits
            - No
            - Observation, transfusion iron supplementation
              - No recurrence
                - No further work-up
              - Recurrence
                - Diagnostic angiogram* and/or intra-operative enteroscopy
                  - Negative
                    - Consider repeating tests
                  - Positive

*The decision to repeat upper endoscopy and/or colonoscopy may depend on the skill and expertise of the initial endoscopist; push enteroscopy can replace upper endoscopy at this juncture; and small bowel biopsy is indicated in patients with clinical or endoscopic evidence of celiac sprue or unexplained iron deficiency anemia (IDA).

**Repeat routine endoscopy may be performed in actively bleeding patients at the discretion of the endoscopist.

*Push enteroscopy and/or Sonde enteroscopy may be performed, depending on operator and institution expertise; enterolysis can complement enteroscopy and improve the diagnostic yield. Angiography performed electively may demonstrate typical findings of angiodyplasia or a tumor blush.

Major Risk Factors for the Development of Gallstones

- Age
- Female sex
- Genetic
  - Pima Indians and certain other Native Americans
  - Chileans
- Pregnancy
- Obesity
- Rapid weight loss
  - Very low calorie diet
  - Surgical therapy of morbid obesity
- Cirrhosis
- Hemolytic anemias
- Hypertriglyceridemia
- Medications
  - Estrogen and oral contraceptives
  - Clofibrate
  - Ceftriaxone
  - Octreotide
- Terminal ileal resection
- Gallbladder stasis
  - Diabetes mellitus
  - Total parenteral nutrition
  - Postvagotomy
  - Octreotide or somatostatinoma
  - Spinal cord injury
- Reduced physical activity (at least in men)
Cholecystectomy with Injury to the Common Hepatic and Common Bile Ducts

Correct Post-operative Condition

Gall Bladder Removed

Common hepatic duct
Double clipped cystic duct

Actual Post-operative Condition

Gall Bladder, Cystic Duct and Common Hepatic Duct Removed

Cut common hepatic duct leaking bile

Normal (Pre-operative) Anatomy

Common bile duct
Cystic duct
Cystic artery

Anterior view
Dieulafoy Lesion

- Aberrant submucosal vessel which erodes the overlying epithelium in absence of a primary ulcer.
- Located in upper stomach along the high lesser curvature near the gastro esophageal junction.
- Diagnosis: EGD
- Treatment: Endoscopic hemostasis
Dieulafoy’s lesion  Endoscopic view of the stomach showing a bleeding Dieulafoy’s lesion.
Courtesy of Rome Jutabha, MD
GAVE

- AKA watermelon stomach-derived from the characteristic endoscopic appearance of longitudinal rows of flat, reddish stripes radiating from pylorus into the antrum.
- Red stripes represent ectatic and sacculated mucosal vessels.
- Causes: idiopathic but associations with cirrhosis systemic sclerosis.
- Diagnosis: classic endoscopic appearance.
- Treatment: Episodic transfusions. Argon plasma anticoagulation
**Watermelon stomach**  Endoscopy shows the antrum and the pylorus (center) and erythematous radial stripes resembling the rind of a watermelon. The patient presented with iron deficiency anemia. Courtesy of Laurence Bailen, MD.
Portal Hypertensive Gastropathy

- **Pathogenesis**: Gastric mucosal blood flow is increased in patients with cirrhosis and portal htn. Gastropathy. May be related to congestion and hyperemia in the stomach.

- **Diagnosis**: fine white reticular pattern (snakeskin) appearance on endoscopy.

- **Treatment**: Decrease portal pressure with TIPS, propranolol, and liver transplantation.
Hemobilia

- **Bleeding from hepatobiliary tract.**
- **Consider in pt.** With recent h/o hepatic parenchymal or biliary tract injury, liver bx., transhepatic cholangiogram, cholecystectomy, TIPS, gallstones, cholecystitis, hepatic or bile tumors.
- **Triad:** biliary colic, obstructive jaundice, and occult or acute gi bleeding.
- **Diagnosis:** ERCP/tagged rbc
- **Treatment:** Direct at primary source of bleeding.
Hemosuccus Pancreaticus

- **Bleeding from pancreatic duct.**
- **Etiology:** chronic pancreatitis, pseudocysts and pancreatic tumors.
- **Bleeding occurs when tumor/cyst erodes into vessels forming direct communication between Duct and vessel.**
- **Diagnosis:** CT scan, ERCP, angiography, or intraoperative exploration.
Aortoenteric Fistulas

- **Location:** Third/4th portion of duodenum; followed by jejunum and ileum.
- **Pathophysiology:** Direct communication between Aorta and gastrointestinal tract.
- **Diagnosis:** Endoscopy
- **Treatment:** Surgical repair of aortic aneurysm and fistula.
Upper GI Tumors

- Neoplasm outgrows blood vessels and causes mucosal ulceration.
- Diagnosis: Endoscopy showing irregular ulcer margins or fungating ulcerated mass.
- Treatment: Surgical resection for cure or palliation. Medical therapy consists of chemotherapy/radiation.
- Prognosis: Die within 12 months.
Gastric tumor  Endoscopic view of an ulcerated gastric tumor. Courtesy of Rome Jutabha, MD.