

Quick Pimps: Acute Gastrointestinal Bleed

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- Where is all this blood coming from?
- Should we place an NG tube?
 - What will increase sensitivity of gastric lavage?
- Is this GI bleeder sick?
- What will the vitals look like?
- What labs should be sent?
- What medications should we give?
- Who to consult?
- Patient is dying and consultants are having an ice cream party...what can we do?
- How would you like to disposition this patient?

Where is blood coming from?

- Most likely upper GI.
 - Acute, massive upper GI: 40-150/100,000 persons
 - mortality rate: 6-10%
 - Acute, massive lower GI: 20-27/100,000 persons
 - mortality rate: 4-10%
- Assume upper
 - More likely, more dangerous, more we can do
- Assume varices
 - More deadly, more we can do

Should we place an NG tube?

NOOO!...it will break away a clot.
...and if you give
ketamine their head will
EXPLODE!



See next page for evidence based medicine

Should we place an NG tube?

- Firstly...NG tubes are SAFE. (even with suspected varices)
 - A Lopez-Torres, J D Wayne.The safety of intubation in patients with esophageal varices. Digestive Dis 1973;18(12):1032.
 - Ritter DM, Rettke SR, Hughes RW Jr, Burritt MF, Sterioff S, Ilstrup DM. Placement of nasogastric tubes and esophageal stethoscopes in patients with documented esophageal varices. Anesth Analg. 1988 Mar;67(3):283-5. PubMed PMID: 3278651.
- Diagnostic Lavage with return of blood is fairly specific for upper GI bleed but NOT sensitive.
- In severe cases, an NG tube can remove large quantities of blood prior to intubation.
 - Not great literature to support this practice but anecdotally used and logically makes sense.
- Real-time information on re-bleed

With a negative diagnostic lavage, what finding will increase our sensitivity?

- **BILE.**
- Bile in lavage is a sign that the pylorus is open and we are returning fluids beyond gastric contents.

Is this GI bleeder sick?

- Glasgow-Blatchford Score
 - Score is equal to "0" if the following are all present: (>5 predicts 50% chance will need an intervention)
 - Hemoglobin level >12.9 g/dL (men) or >11.9 g/dL (women)
 - Systolic blood pressure >109 mm Hg
 - Pulse <100/minute
 - Blood urea nitrogen level <18.2 mg/dL
 - No melena or syncope
 - No past or present liver disease or heart failure

What will vitals look like?

- Hemorrhagic shock
 - Tachycardia
 - Narrow Pulse Pressure
 - Hypotension
- Pearl:
 - Pt's with chronic liver dx and history of varices may be on Beta Blockers which can blunt their tachycardic response.

What labs should we get?

- CBC
 - Monitor H/H
 - Check for thrombocytopenia (<50)
- Type and cross blood for transfusion
- Coags
 - Indicator of liver disease
 - Risk of DIC
 - You want coagulation information on a bleeding patient. If the pt. is on anticoagulants or is essentially anticoagulated due to liver disease you will need to reverse this.
- LFTs
- Renal function (BUN/Cr)
- Fibrinogen
- Calcium
 - Monitor during massive transfusion because of citrated blood transfusions
- Gastrin?
 - Zebra type answer to check for gastrinomas that may cause UGIB

IS BUN/Cr helpful in GI bleeder?

- BUN/ Cr ratio >36
 - sensitivity of 90%
 - specificity of 27%

What medications should we give?

- Oxygen
- Octreotide- Variceal bleeding
 - Replaced vasopressin as it is more efficacious and less vasoconstriction related side effects
- Proton-pump inhibitors- PUD
- Antibiotics

- Oxygen

- PREOXYGENATE in case they end up needing intubation
- Also in pt's with significantly decreased oxygen carrying capacity it is best to keep the hemoglobin that is still around well saturated with O₂ to decrease the risk of ischemic injury.

- Octreotide
 - 50 mcg bolus then 50 mcg/hr
 - Effective in up to 80% of bleeds
 - Somatostatin analogue that induces strong, rapid and prolonged vaso-constriction.
 - Reduces portal and variceal pressures as well as splanchnic blood flow
 - Inhibits both acid and pepsin secretion thus theoretically preventing the dissolution of freshly formed clots at the site of bleeding.

- Proton-pump inhibitors
 - 80 mg over 10 minutes then 8 mg/hr x 72 hrs
 - PPIs help platelets stick, they can not do that in an acidic environment
 - Omeprazole before Endoscopy in Patients with Gastrointestinal Bleeding–Conclusions Infusion of high-dose omeprazole before endoscopy accelerated the resolution of signs of bleeding in ulcers and reduced the need for endoscopic therapy (Nejm 2007;356(16):1631-1640)
 - But patient-centered end points such as mortality, hospital length of stay, and required blood transfusions were not statistically different.
 - There was also an increase rate of rebleeding w/ use of PPIs
- Listen to SMART EM podcast...PPIs may cause more harm than good?

- Antibiotics

- Prophylactically given, ideally prior to endoscopy, to prevent infections AND decrease risk of rebleeding.
- Up to 20% of cirrhotic pt's presenting with GI bleeding have a bacterial infection and up to 50% will develop an infection while hospitalized.

Who should we consult?

- GI
 - Endoscopy
- IR
 - If endoscopy fails
 - TIPS procedure
 - Has largely replaced selective arterial embolization and arterial vasopressin.
 - TIPS much better than endoscopy for variceal bleeding.
- Surgery
 - As last resort or if lower gastric varices are involved

Consultants are unavailable...what are we doing?

- Actively resuscitate **without** over resuscitation
 - Do not want to fluid over load these patients. In patients with variceal bleed a decreased BP can cause a decrease in blood loss.
 - pRBCs if Hg <7 or as part of massive transfusion
 - FFP when fibrinogen is <1g/dl or INR >1.5
 - 15 ml/kg
 - Platelets if <50 AND bleeding
- Balloon tamponade

How would you like to disposition this patient?

- Rockall score: < 3 =low risk of re bleeding or death and can be considered for early discharge.
 - Age
 - Signs of shock
 - Co-morbidity
 - Endoscopic diagnosis
 - Endoscopic stigmata of recent hemorrhage

Resources

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