Haematochezia – The Emergency Presentation

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Outline
What?
What now?
Why?
Who?
When?
How?
Any Questions?

What? (Definition and Aetiology)
Lower gastrointestinal (GI) bleeding originates distal to the Ligament of Treitz (duodenal suspensory ligament)
20-40% of all major GI bleeds, 80-85% occur distal to the ileo-caecal valve
0.7-9% occur in the small intestine
However, 90% stops spontaneously without intervention
Mortality up to 4%, increased risk in elderly patients with co-morbidities
The top 3 causes are diverticulosis (30-65%), ischaemic colitis (5-20%) and haemorrhoids (5-20%)

Clinical presentation:
Hematochezia (maroon or bright red blood)
◦ From lower GI tract: colon, rectum
Melaena (dark tarry blood, with a specific odour)
◦ From upper GI tract: oesophagus, stomach, duodenum
◦ Rarely from caecum/right side of colon

Ligament of Treitz


Ligament of Treitz
Causes of LGIB

What now? (Initial Assessment and Workup)
Take a history, check vital signs, perform a physical examination (to determine site of bleeding, and severity).

Laboratory tests (full blood count, coagulation profile, electrolyte)

RESUSCITATE PATIENT: IV fluids, blood product transfusion (packed red blood cells, platelets, plasma, etc)

AIM: To achieve stable haemodynamics (BP, pulse) before endoscopy, blood transfusion recommended to Hb >7g/dL (and Hb >9 g/dL if significant cardiac co-morbidities), platelet count >50x10/L, INR <1.5

Anaesthetic assessment pre-procedure
Aspirin can be continued if for secondary prophylaxis (post AMI/CVA)

Why? (Potential complications)
Lethargy, dyspnoea, chest pain, distension (anaemia)
Hypovolaemic shock (due to large volume blood loss)
Cardiac arrest
Death

Who? (Staff members involved)
Endoscopy Nurses (Procedure, Sedation)
Endoscopist (Gastroenterologist, Surgeon, General Physician)
Anesthetist (Consultant Anaesthetist, GP Anaesthetist)
Anaesthetic Nurse
Anaesthetic Technician
Theatre Coordinator
Theatre Wardsperson
Recovery Nurses

When? (Urgency)
Urgent (within 24 hours) – high risk, with rapid bowel purge (4L PEG bowel preparation over 4 hours), potentially via NG tube (if low aspiration risk)
Elective (next available, usually within 72 hours) – low risk, with usual bowel preparation

How? (Methods and Approaches)
AIM: To locate and treat the bleeding source
Perform colonoscopy as first line, usually in operating theatre
Consider upper-GI endoscopy also, if hematemesis (bright red blood) with haemodynamic instability (i.e. acute bile-upper GI bleeding)

METHOD: Use method which works!
Adrenaline injection is useful to staunch bleeding and clear the field.
BUT use a second method for definitive treatment! ( clips, gold probe)
How? (Methods and Approaches)

Injection (diluted adrenaline – 1:10,000, 1:20,000)
Coagulation (gold probe, argon plasma coagulation)
Mechanical (haemostatic clips)
Haemostatic topical powder (EndoClot)
Endoscopic Band ligation (variceal banding)
Over The Scope Clip (OTSC Clip)
Rescue Therapy
Repeat colonoscopy/flexible sigmoidoscopy for ongoing bleeding

Radiographic intervention
- Red blood cell scan (minimum bleeding rate 0.05-0.1 ml/min)
- CT angiogram (minimum bleeding rate 0.3-0.5 ml/min)
- Angiogram and embolization

Surgical Consultation – ongoing bleeding despite endoscopic and radiographic intervention
- Segmental resection (preferred) – if site of bleeding identified
- Subtotal colectomy (higher morbidity and mortality)

Take Home Messages
Lower GI bleeding is a common presentation
The most common causes are diverticular bleed, ischaemic colitis and haemorrhoidal bleeding
Patients need to be assessed clinically and resuscitated as required
Most patients do not require urgent colonoscopy
Ideally, the patient should have bowel preparation prior
There are many approaches to treating bleeding
Adrenaline injection should be followed by a second definitive treatment (clips, heater probe)
It is necessary to consider radiological or surgical treatment for ongoing lower GI bleeds

References
Kuo-01, Ghani JS, Def A Lewis. American Gastroenterological Association (AGA) Institute technical review on obscure gastrointestinal bleeding.