Lower GIT emergencies

Daniel Surridge

Head of colorectal surgery

Chris Hani Baragwanath Academic Hospital

Definition

- Previously: below lig of Treitz
- Since capsule endoscopy…
- Upper, small bowel and lower

- For the purposes of this talk…..colonic

Emergencies

- Haemorrhage
- Obstruction
- Ischaemia
- Peritonitis

Haemorrhage: causes

- Upper GI bleed
- Vascular: AVM
  - Diverticular
  - Ischaemic
- Inflammation: Infection
  - IBD
- Neoplasm: Adeno
  - GIST
  - Lymphoma

Haemorrhage: causes

- Medical
- Proctology: haemorrhoids
  Fissure
- Trauma
- Small bowel: Meckle's
  Lymphoma

Haemorrhage: clinical

- Overt/obscure/occult
- Acute/chronic
- 80% resolve with resus

Haemorrhage: mindshift

- Unlike the simple world of upper GI bleeds

- Diverse pathology
- Co-morbidities
- No prevention
- No predictive scoring system

OPEN ACCESS

Diagnosis and management of acute lower gastrointestinal bleeding: guidelines from the British Society of Gastroenterology

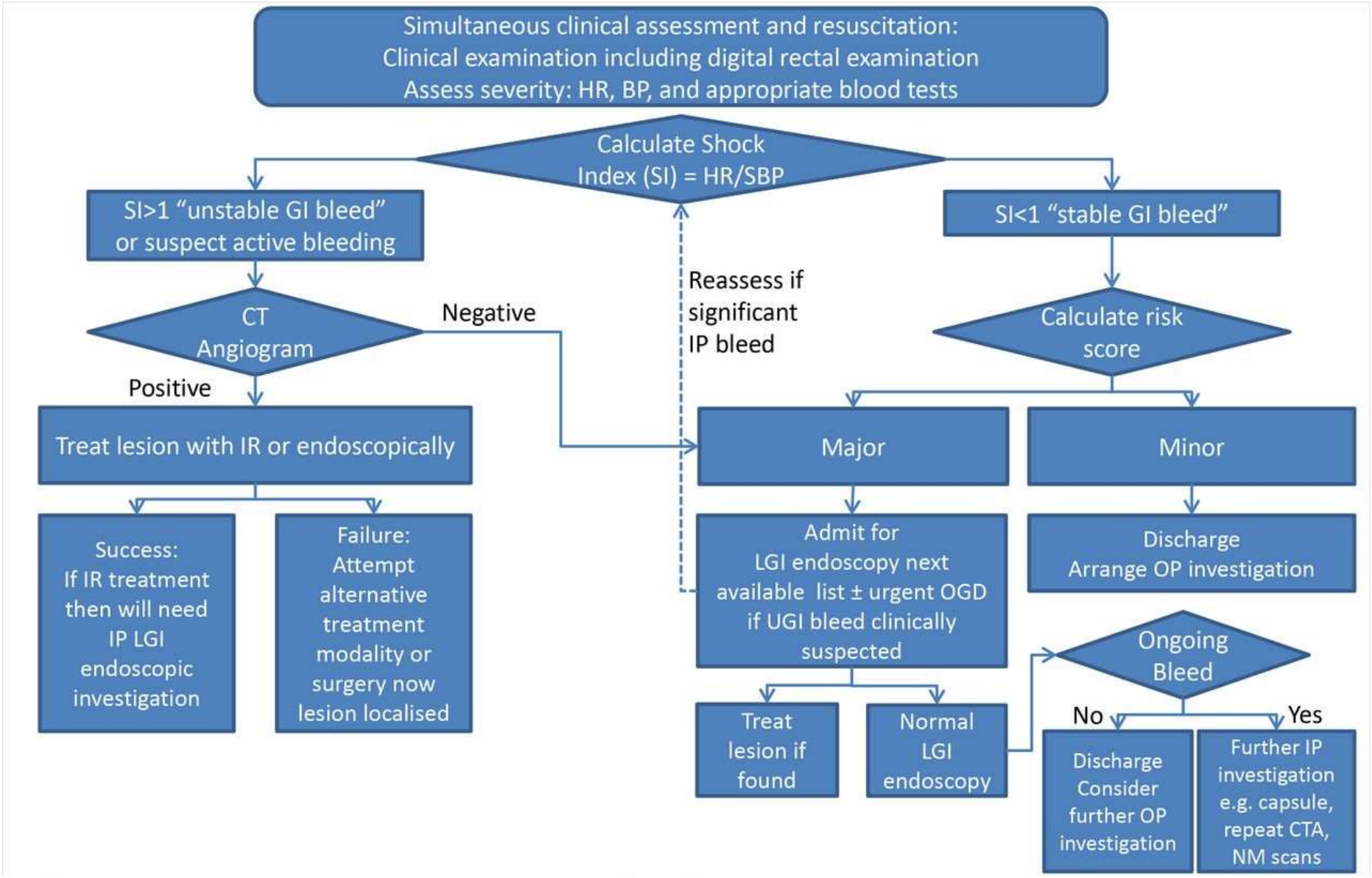
Kathryn Oakland,[1] Georgina Chadwick,[2] James E East,[3] Richard Guy,[4] Adam Humphries,[5] Vipul Jairath,[6,7] Simon McPherson,[8] Magdalena Metzner,[9] A John Morris,[10] Mike F Murphy,[11] Tony Tham,[12] Raman Uberoi,[13] Andrew McCulloch Veitch,[14] James Wheeler,[15] Cuthbert Regan,[16] Jonathan Hoare[17]

Oakland score

Predictor	Score component value
Age	
<40	0
40-69	1
>70	2
Gender	
Female	0
Male	1
Previous LGIB admission	
No	0
Yes	1
DRE findings	
No blood	0
Blood	1
Heart rate	
<70	0
70-89	1
90-109	2
>110	3
Systolic blood pressure	
50-89	5
90-119	4
120-129	3
130-159	2
>160	0
Haemoglobin	
36-69	22
70-89	17
90-109	13
110-129	8
130-159	4
>160	0

Medical

- Warfarin: stop
  Reverse
  Restart after 7 days
- Aspirin: stop permanently
- Consult cardiologist
- LMWH bridging


Simultaneous clinical assessment and resuscitation:
Clinical examination including digital rectal examination
Assess severity: HR, BP, and appropriate blood tests
Calculate Shock Index (SI) = HR/SBP
SI>1 "unstable GI bleed" or suspect active bleeding
SI<1 "stable GI bleed"
CT Angiogram
Negative
Positive
Reassess if significant IP bleed
Calculate risk score
Treat lesion with IR or endoscopically
Major
Minor
Success: If IR treatment then will need IP LGI endoscopic investigation
Failure: Attempt alternative treatment modality or surgery now lesion localised
Admit for LGI endoscopy next available list ± urgent OGD if UGI bleed clinically suspected
Discharge Arrange OP investigation
Ongoing Bleed
Treat lesion if found
Normal LGI endoscopy
No
Yes
Discharge Consider further OP investigation
Further IP investigation e.g. capsule, repeat CTA, NM scans

Beware

- Shock Index on β-blockers
- Becoming too reliant on the donut of death

We recommend that no patient should proceed to emergency laparotomy unless every effort has been made to localise bleeding by radiological and/or endoscopic modalities, except under exceptional circumstances (strong recommendation, low quality evidence).

However, in the real world

- In literature: CT angiogram

  Sens 79–95% spec 95–100%

  “national audit the diagnostic yield of CTA was 49.7%”
- Small number of patients too unstable for CT

My algorithm

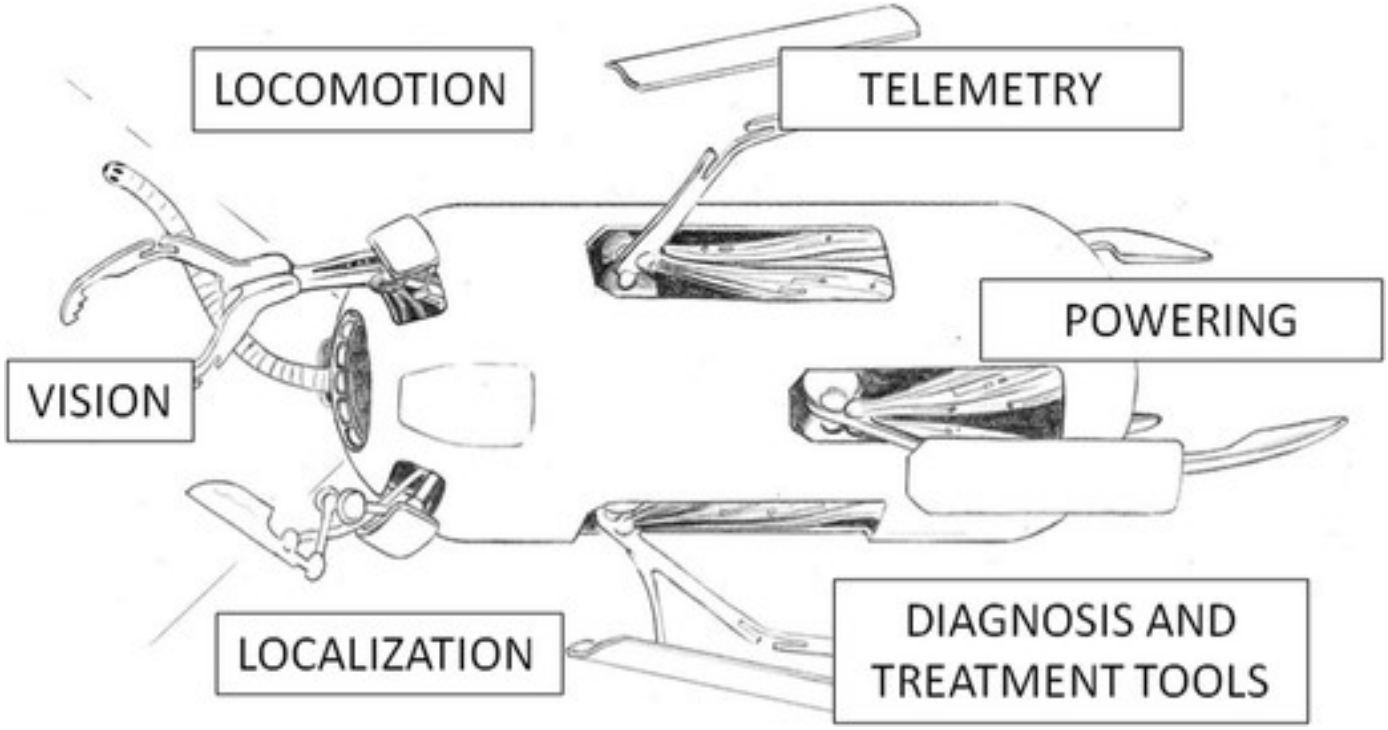
- Responder who stops bleeding
  Out patient Colonoscopy

My algorithm

- Responder who continues to bleed
  - CT angio
  - Formal angio
  - Colonoscopy
  - Labled red cell scan
- Micro angioembolisation
- Endoscopy: Clip
  APC
  Inject
  Diathermy

Clips

Science fiction

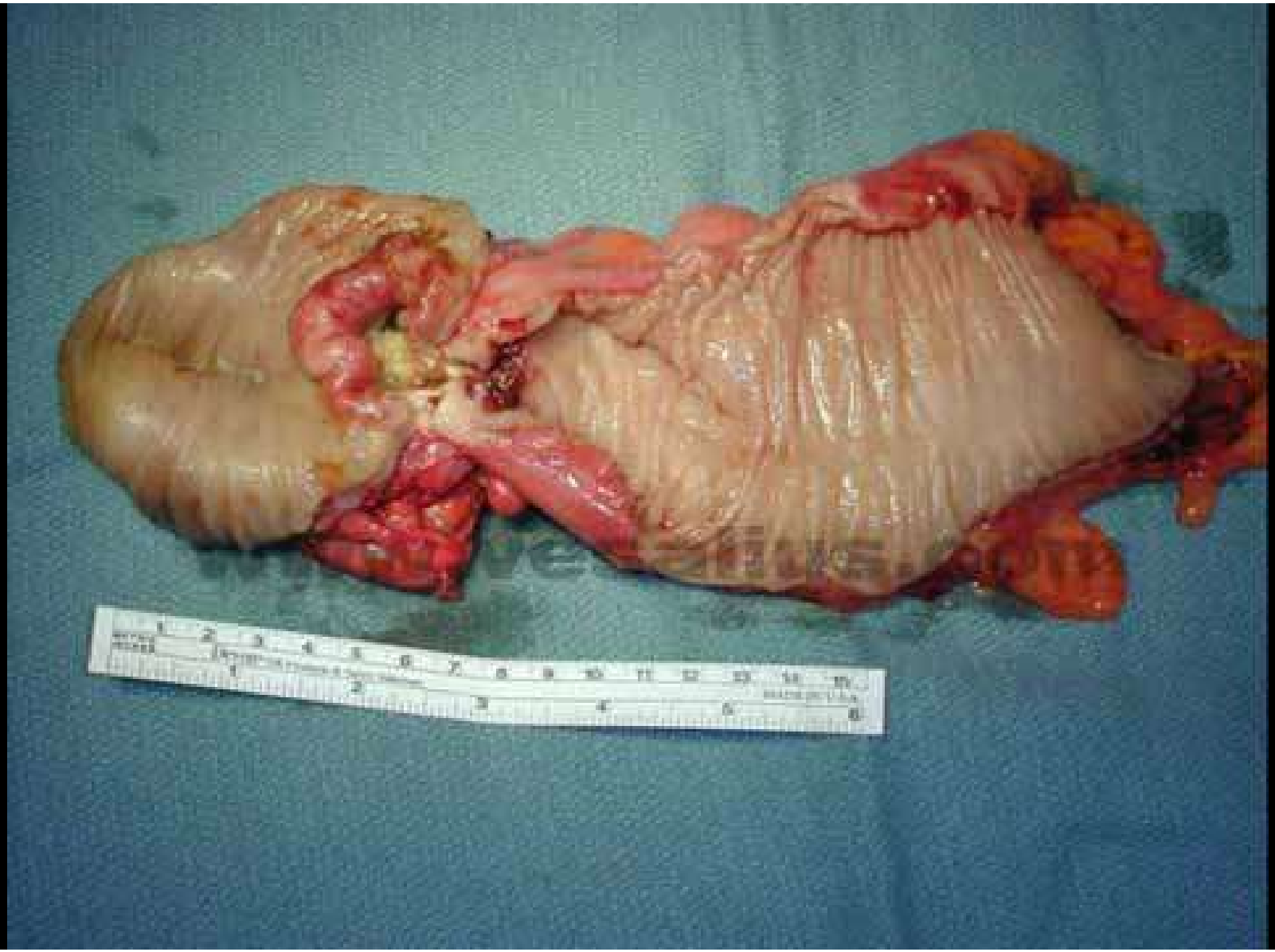


My algorithm

- Non-responder
  - On table colonoscopy
  - Laparotomy with sequential clamping
  - Total colectomy

Obstruction

- Extrinsic: volvulus
  - Adhesive
  - Hernia
- Mural: neoplasm
  - Crohn’s
- Luminal: faecal impaction
- Ileus: Ogilvie
  - Sepsis
  - Pancreatitis



Obstruction: Management

- Treat cause
- Resect
- Bypass
- Divert
- Detort: gas only
- Stent: uncovered

Obstruction: colostomy siting

Obstruction: colostomy siting

- Look for a flat area

- Stay away from:
  - Boney prominence
  - Umbilicus
  - Skin fold

Ischaemia: causes

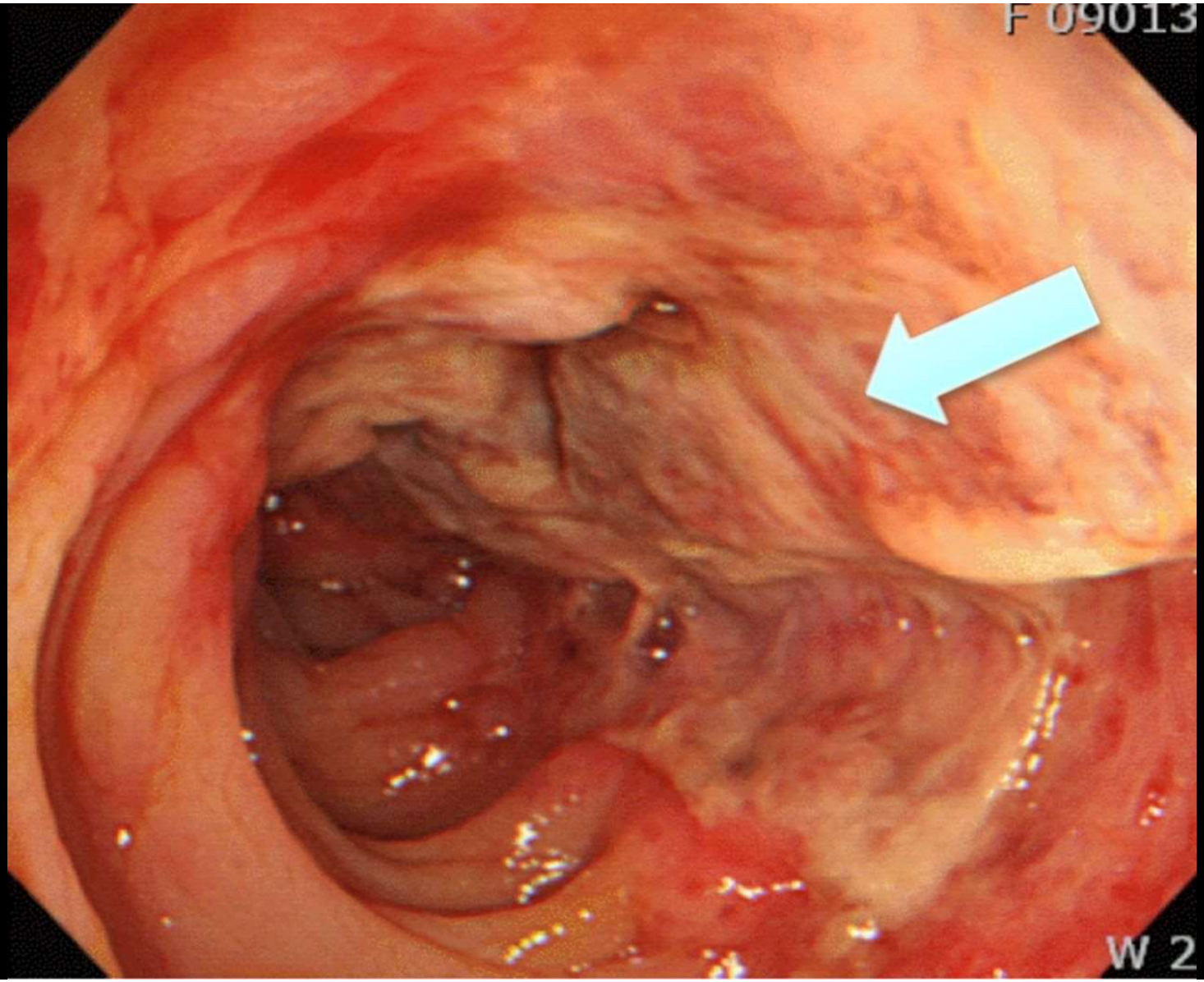
- Non-occlusive
- Occlusive: Thrombotic
  Embolic

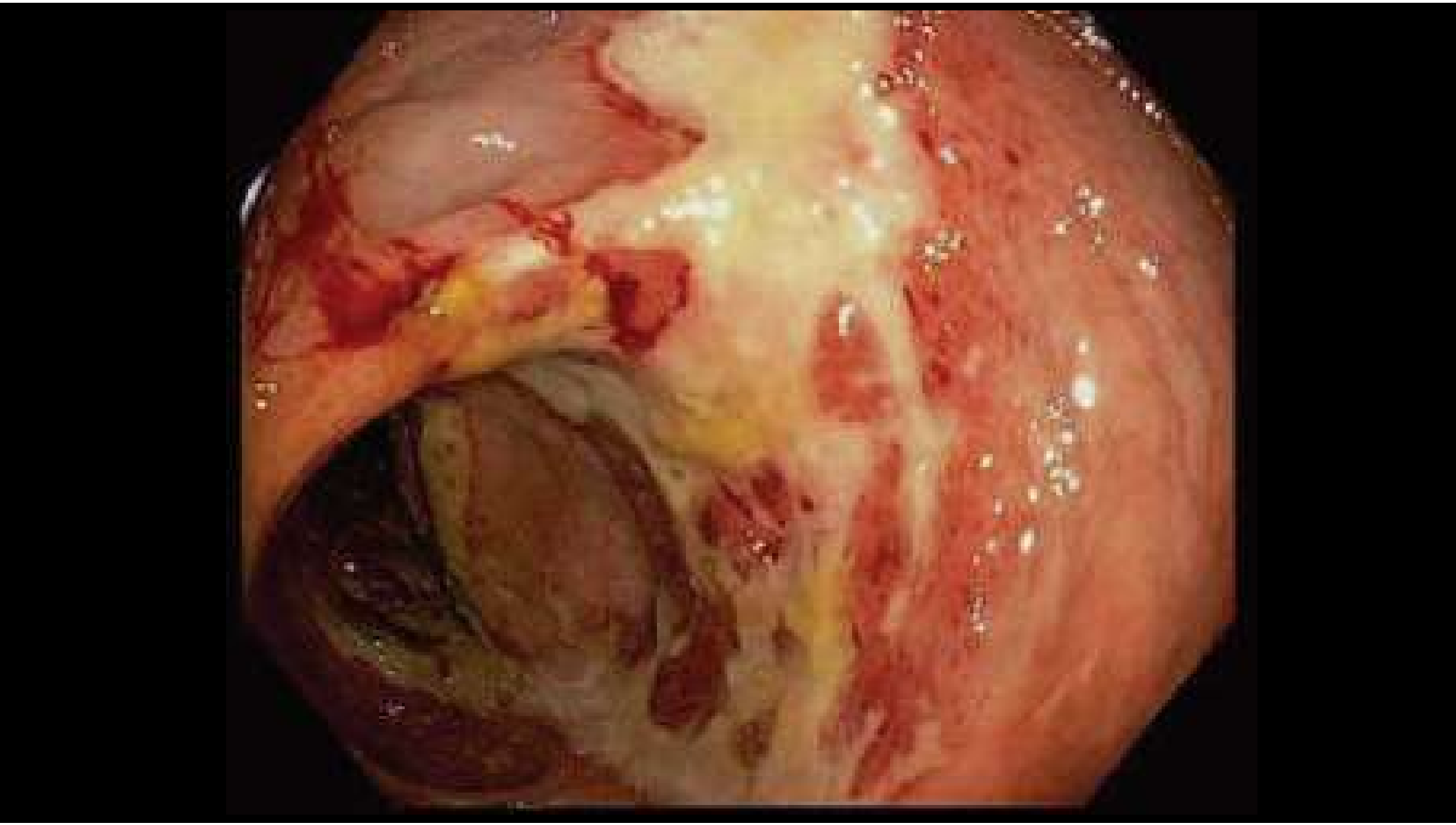
Ischaemia

- Mild
- Moderate
- Severe

Ischaemia diagnosis

- Clinical suspicion
- CT angio
- Colonoscopy


F 09013
W 2



Ischaemia management

- Conservative
- Best medical therapy
- Resection

Peritonitis

- Purulent
- Faeculent
- Complication of above conditions

Peritonitis: treatment

- Source control: peritoneum

  Colon
- Systemic therapy
- Relaparotomy on demand probably safer than planned


In Conclusion

Conclusion

- Colon can be covert and dangerous
- Emergent surgical intervention still necessary
- Use your resources and skills available

References

- Oakland K, Chadwick G, East J et al. Diagnosis and management of acute lower gastrointestinal bleeding: guidelines from the British Society of Gastroenterology. Gut 2019;68:776-789.
- Trotter J M, Hunt L, Peter M B. Ischaemic colitis. BMJ 2016; 355 :i6600
- Kao A, Cetrulo L, Baimas-George M et al. Outcomes of Open Abdomen versus Primary Closure following Emergent Laparotomy for Suspected Secondary Peritonitis: A Propensity-Matched Analysis. J Trauma Acute Care Surg. 2019 Apr 25