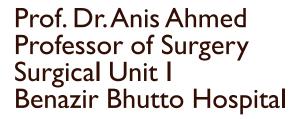


### Hematochezia







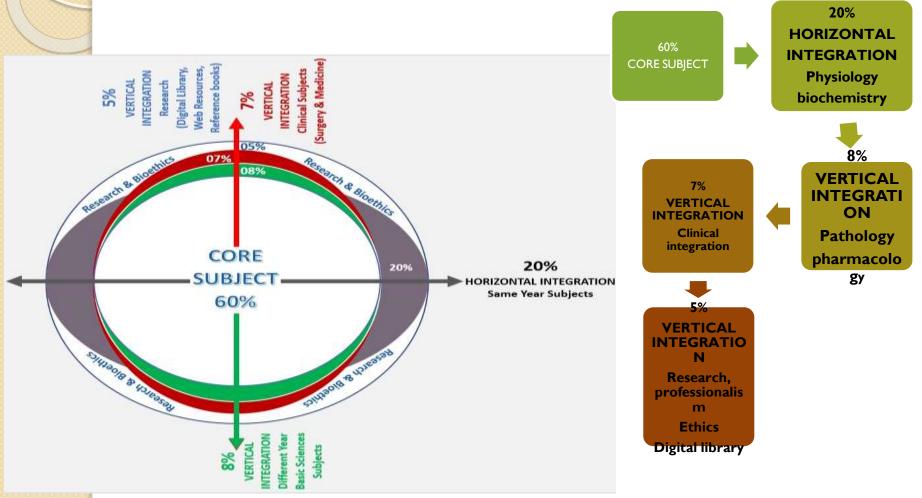
## **Mission Statement of RMU**



- To impart evidence based research oriented medical education
- To provide best possible patient care
- To inculcate the values of mutual respect and ethical practice of medicine



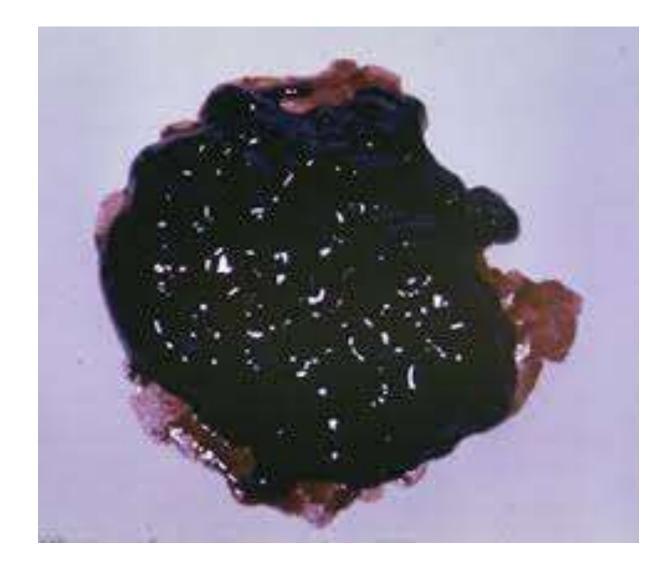
### Professor Umar Model of Integrated Lecture



### Definition

- Abnormal haemorrhage into the lumen of bowel distal to ligament of tritz
- Normal I.2 ml per day
- Significant more than 10 ml
- Self limiting
- 90% colon
- Most common cause







# Presentation

- Hematochezia
- Malena
- Occult bleeding



# Incidence

- Increases with age
- 80% resolve
- 25% rebleed



# Classification

- Massive
- Moderate
- Occult



# Massive bleeding

- More than 1.5 liter per day
- Shock
- Bleeding for more than 3 days







# Occult



# Types

### Etiology

- CONGENITAL
- INFLAMMATORY
- NEOPLASTIC
- VASCULAR
- COGULOPATHY
- MISCELLANEOUS
- Site
  - SMALL INTESTINE
  - LARGE
  - ANAL
- Pain

### Causes of LGI bleeding

Colonic bleeding(95%)	Small intestinal bleeding(5%)	Angiodysplasia
Diverticular disease	Angiodysplasia	Diverticula
<ul> <li>Anorectal disease (hemorrhoid, anal fissure, fistula in ano, solitary rectal ulcer etc)</li> </ul>	<ul> <li>Crohn's disease and infectious disease</li> </ul>	Carcinoma of caecum Meckeln diverticulur Anal
<ul> <li>Neoplasia (polyp,ulcerated lesions)</li> </ul>	<ul> <li>Neoplasia( polyp,ulcerated lesions)</li> </ul>	46 2006 St Georgeris, University of Los
<ul><li>Inflammatory bowel diseass</li><li>Infectious collitis</li></ul>	Radiation	
<ul> <li>Angiodysplasia</li> </ul>	Meckel's diverticulum	
Radiation collitis/ proctitis	Aortoenteric fistula	
• Other	Mesenteric Ischemia	

Ischaemic

### • Pain

- Fissure
- Fistula
- Ca
- Haematoma
- Abscess
- injury



### Painless

- Polyp
- Villous adenima
- Haemorrhoids
- Ulcerative colitis
- ischemia







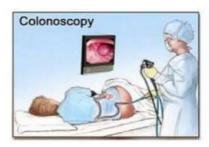
# Clinical presentation



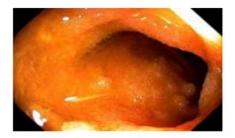
# Investigation

### Diagnostic modalities for LGI Bleeding

 <u>Colonoscopy</u>- Full length colonoscopy is the most important investigation. It helps in visualising from rectum to last 10-15cm of terminal illeum.





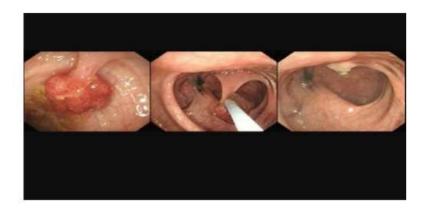


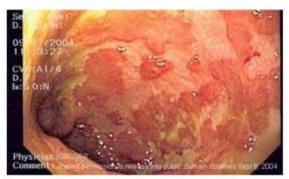
### Colonoscopy

- Therapeutic uses are
- 1. Electro-cauterization of bleeding points
- 2. Polypectomy

#### Diagnostic uses are

- 1. Imaging
- 2. Biopsy of the lesion





#### Ulcerative colitis



Crohn's disease



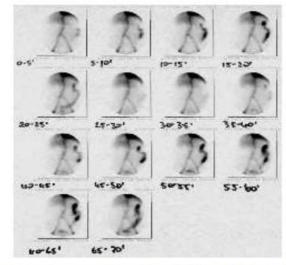
#### CA colon with bleeding



#### Diverticulosis

#### Radionucleotide scanning (Technecium-99m labelled RBC scintigraphy)

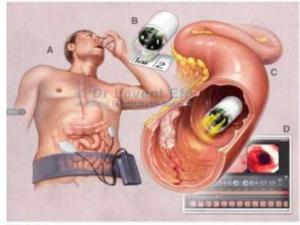
- A sample of patient's blood is taken and then the RBC of the sample is labelled with Tc-99m.
- Next the sample of blood is injected into the patient and serial scintigraphy scan are taken in fixed intervals.
- It only has diagnostic purpose. But the advantage is that it can detect very small amount of bleeding(0.05-0.1 ml/min)



Increasing amount of bleeding at the descending colon

### Capsule Endoscopy

- Non invassive procedure
- Done in stable patients
- Duration is 8h/50000 images
- Only diagnostic value
- The imaging cannot be controlled from outside, thus pathological site may be missed



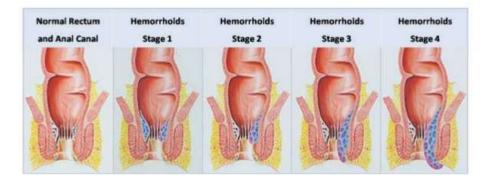
Capture Endeacopy

Medical Biostesion Instructing the 20ty of Capabilit Deleterarge for partners. A Instein seathers the space, and cannot the state results for angle human. In This space is the low of shape if a planet or instein or any premise. C It is successful to the state is the set the space grader and insteints. In This space is the low of the bioeting planet is their reasoned by the discuss , i waikable the purchase an Regulation planet by the bioeting instead. The planets will the bioeting planet is their reasoned by the discuss , i waikable the purchase an Regulation planet by the bioeting instead.

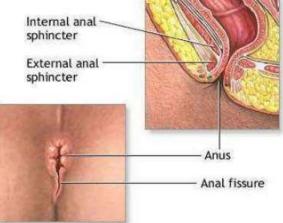
- Internal hemorrhoid- located proximal to dentate line
- Usually painless, thus banding, ligation can be done.
- External hemorrhoid- located distal to dentate line
- These are painful, usually self limited.
- · Classification of internal hemorrhoids and treatment

1st degree	Painless bleeding, no prolapse	Medical therapy by dietary fibre, stool softeners,sitz bath, Operative by rubber band ligation,infrared photocoagulation,sclerotherapy	
2nd degree	Prolapse through anus during straining but reduces spontaneously	Same as above	
3rd degree	Prolapse through anus, requires manual reduction	Rubber band ligation,sclerotherapy,operative hemorrhoidectomy	
4th degree	Cannot be reduced, thrombosed	Operative hemorrhoidectomy	

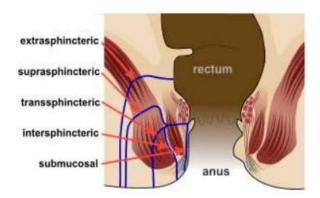
- Sclerotherapy is done by5% phenol in almond or arachis oil
- Operative hemorrhoidectomy are done by Milligan-Morgan's open hemorrhoidectomy, Ferguson closed hemorrhoidectomy, Whitefield submucosal hemorrhoidectomy, Longo's stapler method.



- Anal fissure- It is a cause of painful bleedin per anus
- Fissure is usually presenting with associate infection
- Conservative management done by antibiotics, analgesics, stool softener, anal sphincter relaxant, local dry dressing.



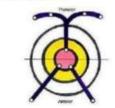
- Fistula in ano- Mainly it is a chronic inflammation progressing into formation of anal fistula, which are almost always associated with infection may present as hematochezia
- Management is usually surgical according type and site of fistula



#### FISTULA-IN-ANO

#### GOODSALL'S RULE:

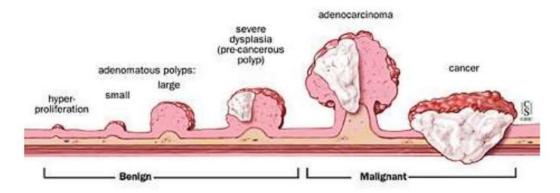
• The internal opening of an anterior fistula lies along a radial line drawn from the external opening to the anus, whereas the internal opening of a posterior fistula lies in the mid line posteriorly.





### Neoplasia of LGI tract including anal canal

- Neoplastic growth are a significant cause of LGI bleeding
- It may present as polyp, sessile polyp, ulcer or mass.
- Sloughing off of the lesion may present as lower gi bleeding
- Proper evaluation, investigation, biopsy, staging of the neoplasia is to be done for either/or chemotherapy, radiotherapy and/or oncosurgery



### <u>COLITIS</u>

 Both infective/inflammatory colitis present as LGI bleeding, mostly hematochezia, pus may also be present.

#### Colitis

An inflammatory reaction in the colon, often auto-immune or infectious.

#### Most common types

#### Ulcerative colitis

A chronic, inflammatory bowel disease that causes inflammation in the digestive tract.

#### Crohn's disease

A chronic inflammatory bowel disease that affects the lining of the digestive tract.

#### C Diff. Colitis

Inflammation of the colon caused by the bacteria Clostridium difficile.

#### DIAGNOSIS

- The diagnosis of <u>Ulcerative colitis</u> and <u>Crohn's disease</u> is usually confirmed by biopsies on colonoscopy.
- Although colonoscopy and sigmoidoscopy are still employed, now stool testing for the presence of C. difficile toxins is frequently the first-line diagnostic approach with history of prior antibiotic use or hospitalization.



- Angiodysplasia is a small vascular malformation of the gut. It is a common cause of otherwise unexplained gastrointestinal bleeding and anemia.
- Cases present with <u>black</u>, <u>tarry stool (melena)</u>, the blood loss can be subtle, with the anaemia symptoms predominating
- <u>Diagnosis</u> of angiodysplasia is often accomplished with endoscopy, either colonoscopy or esophagogastroduodenoscopy (EGD).
- Treatment may be with colonoscopic interventions, angiography and embolization, medication, or occasionally surgery.



### • The End