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# APPROACH TO LOWER GASTRO - INTESTINAL BLEEDING

A case report from the CHBAH

DR JC M usas



# Patient...

54 years old female p/w: PR Bleed

pH	pO2	pCO2	Hb	Na	K	Cl	BE	HCO3	Sat
7.42	98.2	38.4	6.5	136	4.2	98	-1.4	22	99.0

FBC: 7.2 / 6.4 / 74.6 / 234

U/E: 132 / 4.2 / 98 / 20 / 4.2 / 78

G/scope and C/scope



## Headings

Definition

Etiologies

Investigations

Management

Summary and Recommendations

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## Definitions

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Lower gastrointestinal bleeding (LGIB) refers to blood loss of recent onset originating from a site distal to the ligament of Treitz. It is usually suspected when patients complain of hematochezia (passage of maroon or bright red blood or blood clots per rectum).

Although helpful, the distinctions based upon stool color are not absolute since melena can be seen with GI bleeding from the right colon (or small intestine), and hematochezia can be seen with massive upper GI bleeding.



## Definitions...

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The incidence of LGIB is only one-fifth that of the upper gastrointestinal tract and is estimated to be ~24 per 100,000 adults per year.

- Occult bleeding: Positive FOBT results and/or iron deficiency anemia but no evidence of clinical blood loss.
- Obscure bleeding: GIB that persist with no obvious etiology after upper and lower scope.



# Etiologies

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Anatomic : Diverticulosis, Hemorrhoid, anal fissures

Vascular: Angiodysplasia, Ischemic, Radiation

Inflammatory: IBD, Infections

Neoplastic



# Investigations

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Our patient:

57 female with PR Bleeding

Hb:6.4

1. G/scope: NAD

- Laine and Shah found that 15% of patients presenting with hematochezia had an upper gastrointestinal source of bleeding identified at urgent esophagogastroduodenoscopy.



# Investigations

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2. C/ Scope :Advantages of colonoscopy include its potential to precisely localize the site of the bleeding, the ability to collect pathologic specimens, and potential therapeutic intervention.

Endoscopic therapy can be used to treat several causes of LGIB, including diverticula, angiodysplasia, hemorrhoids, post polypectomy bleeding, and radiation telangiectasia or proctitis.

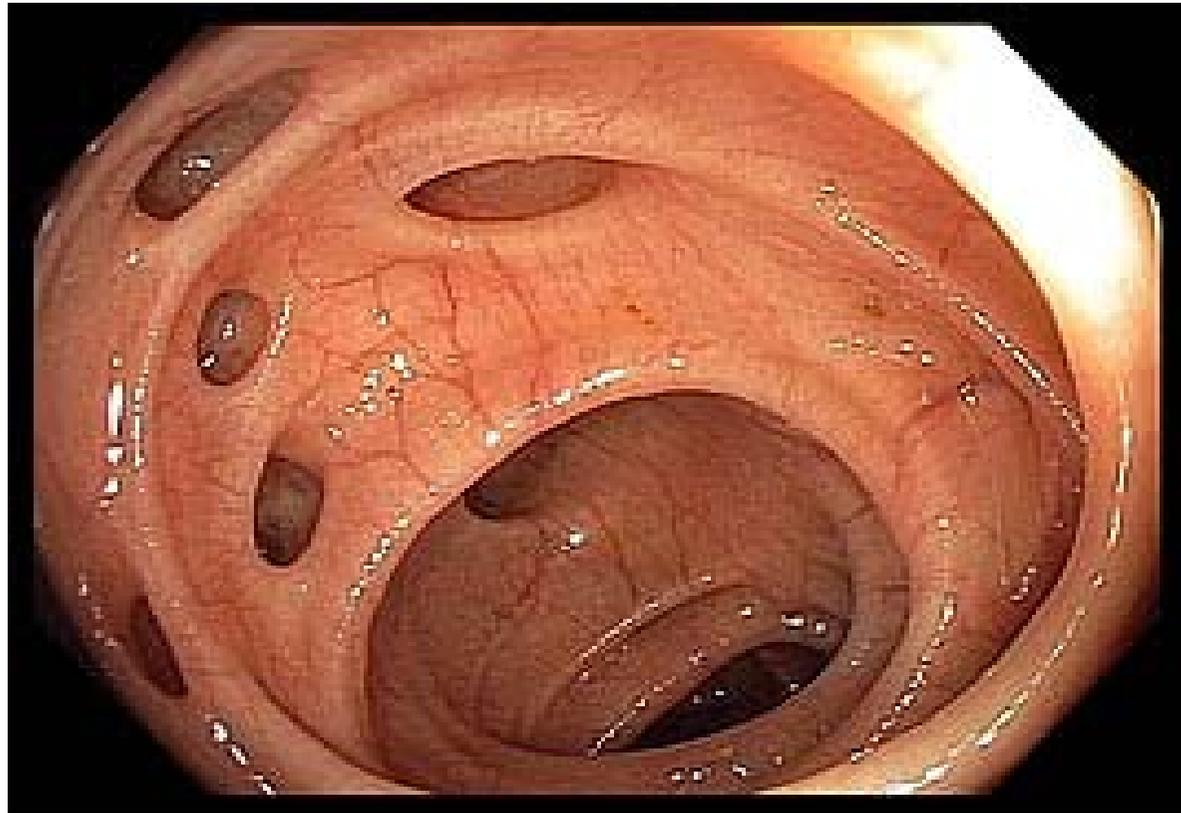


# Investigations...

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Disadvantage: Unless the patient has a massive bleed, the cause is usually not identified.

# Our patient





## Investigations...

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3. Angiography : requires active blood loss of 1 to 1.5 mL/minute for a bleeding site to be visualized . The procedure is 100 percent specific. A positive angiogram is associated with a very high likelihood of the need for surgical intervention .



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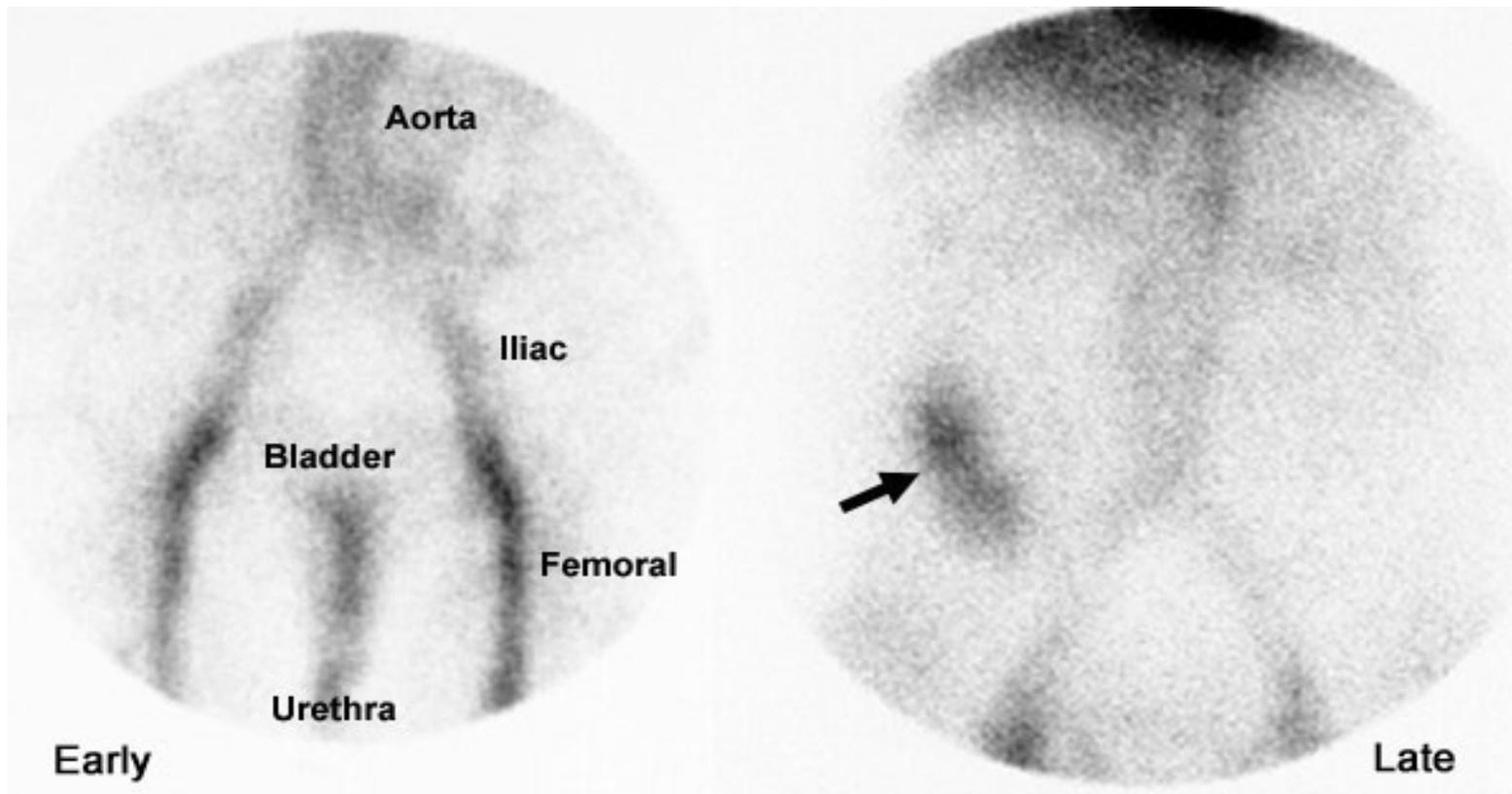
# Our Patient..

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CT Angio: Negative



# Our patient...





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4. Radionuclide scan: Detects bleeding that is occurring at a rate of 0.1 to 0.5 mL/minute.

More sensitive than Angiography/ CT Angiography but less specific than either colonoscopy or Angiography.

*Technetium sulfur colloid*: Rapidly cleared from the intravascular space. The short half-life of the colloid within the circulation means that patients must be actively bleeding during the few minutes that the label is present in the vascular space.



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*Injection of  $^{99m}\text{Tc}$  pertechnate*: labeled red cells are injected intravenously, images are obtained frequently up to 24 hours. One advantage of this technique is that patients with intermittent bleeding can be scanned several times.

Major disadvantage: Can only localize bleeding to a general area of the abdomen. Blood can move in either a “peristaltic or antiperistaltic” direction.

As an example, bleeding in a redundant sigmoid colon may appear as extravasated blood in the right lower quadrant, suggesting right colon bleeding.



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These difficulties were illustrated in a study of 203 patients undergoing technetium 99m-labeled red cell scintigraphy for LGIB . The scan was positive and suggested a site of bleeding in 52 cases (26 percent). However, the scan was incorrect in 13 of these 52 patients (25 percent) and 8 patients had unwarranted surgical procedures.



## Our patient...

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57 years old female

PR bleeding : Hb 6.4

G/scope: NAD

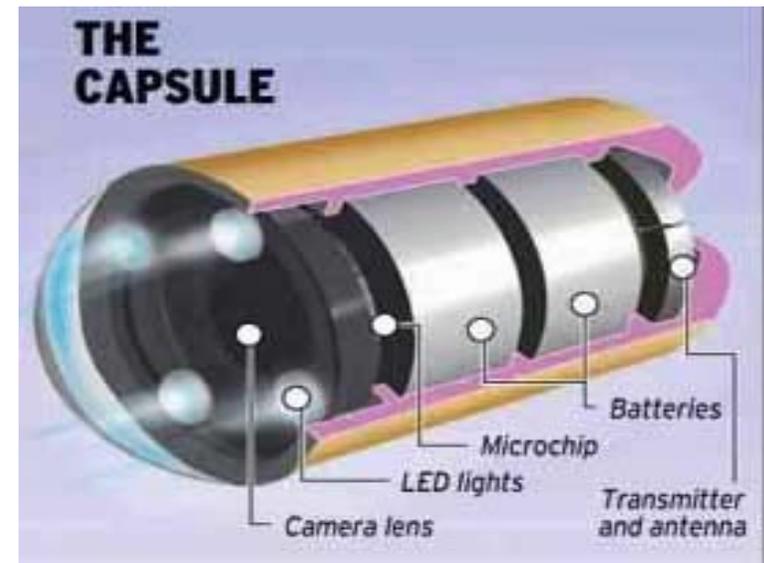
C/scope: Pan diverticulitis (no obvious bleeding)

CT Angio: Negative

Red cell scan : Could not localize the bleeding site



# Wireless Video Capsule endoscopy





*Miro View® Workstation*



Equally or more sensitive than other methods for the diagnosis of small bowel sources of blood loss, including push enteroscopy.  
Advantages: Noninvasive and permits examination of the entire small bowel, which is not always possible during enteroscopy.  
Disadvantages: Does not permit tissue sampling or therapeutic intervention.



## Indications

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- Advantages: Noninvasive and permits examination of the entire small bowel, which is not always possible during enteroscopy.
- Disadvantages: Does not permit tissue sampling or therapeutic intervention.

## Contra indications

- G I Obstructions, strictures, fistula
- Swallowing disorders
- Cardiac pacemaker or implanted electro medical devices



## Our patient...

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PR bleeding : Hb 6.4

G/scope: NAD

C/scope: Pan diverticulitis (no obvious bleeding)

CT Angio: Negative

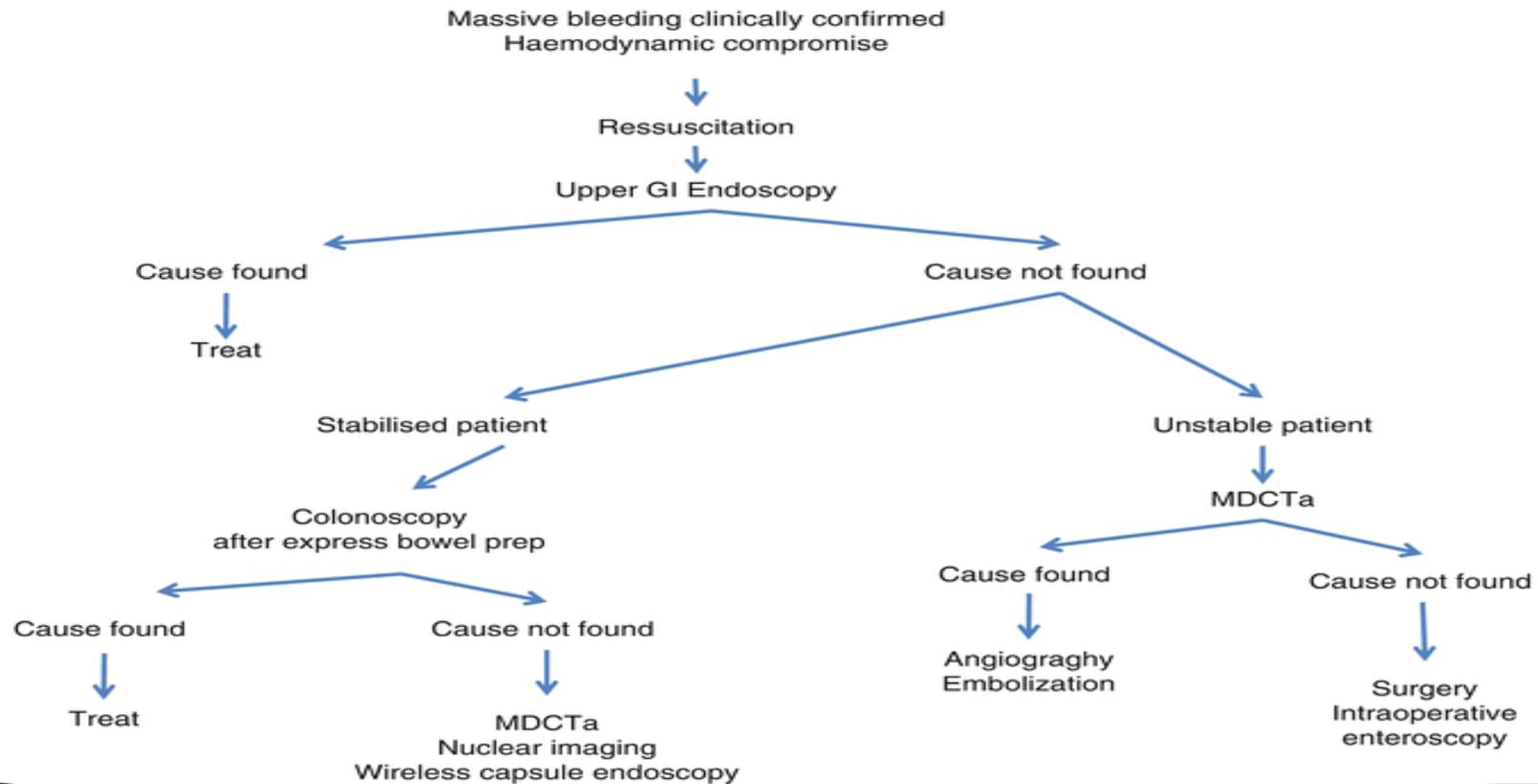
Red cell scan : Could not localize the bleeding site

**Capsule endoscopy: Bleeding telangiectasia in small bowel, 160 cm from ileocaecal valve.**

Patient taken over by Medical GIT for APC

# Management

## Massive Lower GI Bleeding - Management algorithm





# Summary and recommendations

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LGIB is a considerable cause of morbidity worldwide. It is important to recognize patient who need emergency management.

About 80 % of LGIB will stop on it own.

When possible, the cause of the bleeding should be investigated thoroughly to avoid unnecessary operation.



# Summary and recommendations

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If obscure bleeding: Any role for capsule endoscopy as modality of investigation when upper and lower scopes are negative?



Thank you





# References

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[Palmer ED. The vigorous diagnostic approach to upper-gastrointestinal tract hemorrhage. A 23-year prospective study of 1,4000 patients. JAMA 1969; 207:1477.](#)

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