

GUIDELINES FOR MANAGEMENT OF THE PATIENT WITH RECTAL BLEEDING

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Introduction

Rectal bleeding is the most common presenting symptom of large bowel pathology (1). Whilst, in most, bleeding is due to benign ano-rectal pathology such as haemorrhoids and anal fissure, bleeding may be the initial presenting symptom of large bowel cancer. The goal of current management of rectal bleeding, based on a targeted history, physical examination and judicious use of investigation, is to exclude underlying large bowel cancer before undertaking management of benign ano-rectal pathology. Often, these conditions may co-exist. Hence these guidelines, which have been formulated to guide primary care doctors and those working in the peripheral hospitals of Sri Lanka provide a safe management pathway for their patients who present with rectal bleeding.

Category –

Primary care physician, Central dispensary, District Hospital

We would recommend that a comprehensive history and physical examination, including digital rectal examination and anoscopy constitute the minimum best practice at such a facility. Likewise, assessment of hemoglobin should be undertaken whilst the ideal would be to have a full blood count which would provide additional values such as total white cell count, which may be reduced in certain types of leukemia and blood dyscrasias, and the platelet count, which, if low, may be contributory to blood loss. Also recommended is analysis of a sample of the individual's stool.

Comprehensive history

- Type of blood loss / amount and duration (fresh / altered / malena)
- Alteration of bowel habits
- Mucus or blood mixed with stool
- Perianal or lower abdominal pain
- Loss of appetite (LOA) and / or loss of weight (LOW)
- Medication e.g.; aspirin / clopidogrel / anti-coagulants
- Bleeding disorder
- Family history of large bowel cancer

Physical examination

- General (pallor of mucus membranes, jaundice, lymphadenopathy, in particular, left supraclavicular, evidence of subcutaneous or mucus membrane petechial haemorrhage, lower limb oedema)
- Comprehensive clinical exam of cardiovascular system
- Abdominal examination including digital exam of the anorectum

Digital rectal examination:

Inform the patient of what you intend to do. The procedure requires a pair of disposable gloves and lubricant gel. A local anesthetic gel, such as lignocaine would be preferred in patients with anal fissure. The patient should be made to lie in the left lateral position with both knees drawn up to the chest and the buttock at the edge of the examination couch. Inspect the anus after separating the buttock. Look for anal scars suggestive of previous operation or perineal tears in women after obstetric trauma, a patulous anus due to reduced

anal sphincter tone, erythema, skin excoriation, skin tags, prolapsed haemorrhoids, genital and peri-anal

warts, the external opening/s of an anal fistula or sinus. Apply gel to the peri-anal area and, to the tip of your examining index finger. Gently introduce the finger into the anal canal whilst asking the patient to breathe comfortably and bear down, which helps reduce internal anal sphincter tone and facilitates anal canal opening. If there is severe pain, it is likely that the internal sphincter is in spasm. This suggests the presence of a fissure. Abandon the procedure, and attempt examination after administration of major analgesics or suggest an examination under anaesthesia (EUA). Once the finger is within the anal canal, palpate for a mass, polyp, ulcers, check the anterior posterior and lateral walls, the prostate gland in males and the pouch of Douglas in female patients respectively. On completion of the digital exam, wipe the perineum dry before getting the patient's clothing back on.

Anoscopy: The proctoscope, also known as the anoscope, is an instrument consisting of an obturator enclosed in a viewing barrel with a handle and light source, the procedure requires lubricating gel, preferably, lignocaine and a pair of disposable gloves. The patient lies in the left lateral position with knees drawn up and the buttock at the edge of the table. After applying gel, gently introduce the instrument into the anal canal. Once fully inside, that is, beyond the anal sphincter complex, remove the obturator, attach the light source and gradually withdraw the instrument keeping the anal mucosa in full view. Note the state of the mucosa, any haemorrhoids (purple cushions at the 3,7,11 'o' clock positions) and look for anal polyps.

Investigation Full blood count {FBC}:

Haemoglobin > 11gm/dl

Platelets – 150000-450000/mm³

WBC- 4000-11000/mm³

Endoscopy + Proctoscopy

It would be beneficial if the doctor is familiar with these examination techniques. We recommend that medical personnel at these institutes undertake a familiarization course in examination of the anorectum.

Conditions that may be identified and treated by a primary care doctor

Anal Fissure

External plexus haematoma,

Haemorrhoids – grade 1 and 2 in an individual of age less than 40 yrs

Management Guidelines

Anal fissure

Symptoms: Shooting pain associated with defecation lasting hours

Blood on stool

Constipation

Sentinel pile

Be gentle with examination (? under anaesthesia)
traction on the buttock is sufficient to reveal the presence of fissure

Anoscopy / Proctoscopy is best avoided due to the pain
Exclude underlying Crohns disease, malignancy, TB and sexually transmitted disease (STD)

Management

- Stool softeners, bulking agents, sitz baths, simple analgesics and lignocaine gel, applied locally, will heal over 90%
- 0.2% nitroglycerine ointment local application has been effective in some but has been shown to be of only temporary benefit and associated with a throbbing headache.(2)
- 0.3% nifedipine ointment may be employed in refractory cases.(3)
- Lateral internal anal sphincterotomy or anodermal flap repairs are surgical interventions that may provide a more permanent cure in selected cases.(4)

Haemorrhoids – Grade 1 and 2

Grade 1

-Bleeding due to haemorrhoids after exclusion of likely neoplasia more proximally. No anal lumps visible or felt by the patient during defecation.

Grade 2

-Bleeding associated with anal lumps that appear during defecation and return spontaneously into the anal canal

Symptoms

- Painless bright red bleeding per rectum
- Mucus discharge
- Rectal fullness or discomfort
- Lump at anus

Management

- Rectal examination and proctoscopy (essential as hemorrhoids are usually not palpable)
- Exclude underlying colorectal malignancy, inflammatory bowel disease (IBD), diverticular disease, adenomatous polyp and rectal prolapse

Treatment

- Stool softeners , bulking agents , increased intake of liquid
- Sclerotherapy with phenol 5% in arachis or almond oil (1st degree){ see box}
- Elastic band ligation (not advised at peripheral hospital) (2nd degree)
- Haemorrhoidectomy or Stapled haemorrhoidopexy (3rd and 4th degree)

Fistula in ano

Symptoms:

Perianal pain / discharge
Rectal bleeding

Management

Rectal examination and proctoscopy
Exclude

- Crohns disease
- pilonidal disease
- hydradenitis suppurativa
- traumatic fissures
- carcinoma
- diverticulitis
- radiation injury

Surgery

Anal Fistulectomy or other current procedure
based on surgical expertise

External plexus haematoma

Symptoms:

Acute anal pain which often commences during increase in intra-abdominal pressure, such, as after defecation straining, coughing, sneezing, laughing and which lasts in maximum Severity for 2 to 3 days. Patients must be informed that the Peri-anal swelling may take up to 2 weeks to resolve.

Inspection :

Tense dark blue swelling at the anal margin

Management

Reassurance and analgesia
If large, or extremely painful, excise under local anesthesia
(2% lignocaine+1/200000 adrenaline – Maximum safe dose 7mg /Kg)

IF ANY OF THE ABOVE MENTIONED CONDITIONS DOES NOT RESPOND TO CONSERVATIVE MANAGEMENT AT THE LOCAL HOSPITAL FOR A PERIOD OF SIX WEEKS, WE RECOMMEND THAT THE PATIENT BE REFERRED TO A HIGHER INSITUATION FOR FUTHER EVALUATION AND TREATMENT

Sclerotherapy

Requirements

- proctoscope,
- gloves,
- lignocaine gel,
- 5% phenol in almond oil, syringe / Gabrielle needle, spinal (18G) or venflon needle.

Positioning

The patient is positioned as for a proctoscopic examination,

Technique

The haemorrhoids are visualized using the proctoscope, and about 2-3 ml of 5% phenol in almond oil is injected above each of the haemorrhoids.

May require a series of 2 to 3 injections at 6 weekly intervals.

The injection should be seen to raise a pale swelling which spreads immediately deep to the mucosa.

Complications

- **too superficial** A white wheal indicates too superficial an injection and the risk of mucosal sloughing
- **too deep** an injection may have serious consequences; in men, *chemical prostatitis* and *impotence* are well recognized rare complications and *anovaginal fistulas* have been reported in women.
- **bradycardia**. Occasionally, phenol injection may be followed by a vagally induced bradycardia. Therefore, leave the patient on the couch for sometime after injection and ensure that the pulse rate is within the acceptable physiological range, the patient has no feeling of nausea, vomiting and is not feeling “light-headed” before getting the person off the couch. Treatment for bradycardia may have to include intravenous atropine and / or oxygen therapy
- **allergic reaction** Rarely, phenol may induce an allergic reaction, which may include anaphylaxis. It is essential to have an emergency tray on-hand to deal with anaphylaxis.

Referral to a Higher Institution

We recommend that appropriate referral be sought in an individual with rectal bleeding and any of the following;

1. If the doctor is unable to manage piles
2. In patients over 40 yrs with piles for check sigmoidoscopy
3. In patients with recurrent fissures for colonoscopy/ileoscopy
4. Presence of “alarm symptoms” which suggest a more proximal etiology to rectal bleeding
 - 4.1 Rectal bleeding associated with a change in bowel habit lasting more than 6 weeks
 - 4.2 Persistent rectal bleeding for more than 3 months which fails to respond to treatment for haemorrhoids
 - 4.3 Rectal bleeding associated with an anorectal mass on digital examination
 - 4.4 Rectal bleeding in association with an abdominal mass
 - 4.5 Rectal bleeding and anemia
 - 4.6 Rectal bleeding in association with passage of mucus in stool
 - 4.7 Rectal bleeding accompanied by loss of weight
 - 4.8 Rectal bleeding in association with an anal fistula
 - 4.9 Rectal bleeding with no apparent cause
 - 4.10 A family history of large bowel cancer / inflammatory bowel disease
 - 4.11 Rectal bleeding with hypovolaemia suggests the need for urgent transport of the patient, after appropriate resuscitation at the admitting institute, to a higher institute staffed by consultants, operating room and intensive care facilities.

The Base Hospital

Upon referral of the patient with rectal bleeding to the base hospital, the patient will be under the care of a consultant surgeon. Management to a large extent depends on the discretion of the surgeon. We believe the management will follow the conventional path of history and physical examination, rectal examination and investigation. Additional investigations that may be undertaken are;

Anoscopy / Rigid Sigmoidoscopy

Flexible Sigmoidoscopy

Colonoscopy

Anoscopy or Proctoscopy should be limited to the evaluation of the anal canal.

Rigid Sigmoidoscopy should be limited to obtaining a good quality view of the lumen and mucosa of the anal canal and the rectum. It would not be possible to obtain a satisfactory view of the sigmoid colon using the rigid instrument in all cases without an ***increased risk of bowel injury***, which includes ***perforation***.

Flexible Sigmoidoscopy:

The examination, after bowel cleansing, is performed to evaluate the rectum and sigmoid colon. In a significant proportion of cases it is also possible to examine the descending colon and, in some, the left transverse colon. We do not recommend statement of the distance traversed by the instrument from the anal verge as this does not accurately reflect the proximal limit of colon examined. Rather, we would recommend the statement by the endoscopist of the region examined which may be determined by regulation of landmarks ;

Anal canal: 0-5 cm from the anal verge, presence of dentate line
Rectum: Voluminous organ, upper middle and lower shelves of rectum visualized

Recto sigmoid junction: At the cephalic end of the rectum usually present with an acute bend in the large bowel which results in loss of view of the lumen as the instrument passes up the rectum

Sigmoid Colon: Part of the colon proximal to the recto sigmoid junction, usually recognized by the concentric circular folds within its lumen. The length of this part of the colon is variable, which, results in estimates of colon examined by statement of distance unreliable.

Descending Colon: Proximal to sigmoid colon, sigmoid-descending colon demarcation is not clear-cut, but the descending colon is usually a “straight tube” which affords a full view of its luminal extent on entry on this part of the colon, unlike in the sigmoid colon.

Splenic Flexure: Yet another acute flexure in the proximal descending colon, usually associated with the view of the trans-illuminated blue black spleen. Beyond the splenic flexure, the colon assumes a triangular shape.

Barium Studies as the sole method of evaluation of the large bowel are inadequate. Barium studies provide an incomplete assessment of the rectum and, therefore, barium

enema studies should follow endoscopic assessment of the rectum, either by rigid or flexible endoscopy.

Indications for barium enema

To determine level of obstruction
(single contrast ,i.e. dilute or water soluble)

Carcinoma of the colon

Ulcerative colitis

Diverticular disease of the colon

Familial adenomatous polyposis

Assessment of anastomotic leak / perforation
(water soluble contrast)

Furthermore, a single contrast enema is inaccurate in the assessment of mucosal detail of the large bowel and rectum. It should be limited to evaluation of large bowel obstruction only, which is usually undertaken by water soluble contrast study, rather than barium. In the evaluation of the large bowel, colonoscopy is the best option. When undertaken by trained personnel, the risk of perforation has been estimated to be around 1 per 2000. However a double contrast barium study combined with endoscopy of the rectum is an *alternative to evaluation of the large bowel by colonoscopy.*

Presence of polyp ulcerative pathology:

Inflammation and tumors or any abnormal mucosal detail should be evaluated by biopsy and histological study. A minimum of four endoscopic biopsies are recommended. Biopsy samples must be placed on blotting (filter) paper squares and fixed in 10% formal saline.

Biopsy of polyps is not recommended. Instead, a polyp should be dealt with either by snare excision or complete excision with either cold or hot biopsy forceps.

Dealing with a pedunculated polyp

Because of the possibility of malignant change within a polyp, it is best to submit the entire polyp for histology. Polyps must be retrieved, oriented by correct placement on cardboard squares and either held in place by a suture or an intravenous needle pinned to the cardboard. It is essential to indicate to your pathologist the site of the stalk to enable classification of polypoidal carcinoma if present.

Dealing with a Sessile Polyp

A large polyp, usually greater than 10 mm, requires specialized techniques employing piecemeal polypectomy or polypectomy assisted by mucosal infiltration with a solution of saline and adrenaline 1/1000 dilution to ensure haemostasis.

Polyps less than 10 mm could be removed between the cups of a biopsy forceps using either a single pass or several passes. All of the tissue should be submitted for histology. It is essential to secure haemostasis. To this end, use of a hot

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biopsy forceps, where the excised polyp tissue within the grasp of the biopsy forceps is preserved intact whilst the surrounding colon mucosa is coagulated, is helpful.

Informed consent for endoscopy plus polypectomy

Specifically, patients should be informed of effects of conscious sedation, prophylaxis for infective endocarditis, bleeding and bowel perforation.

Beware of anti-coagulant therapy and anti-platelet therapy

When to evaluate further after flexible sigmoidoscopy

1. Presence of a polyp or polyps at sigmoidoscopy
2. Presence of a tumor
3. When inflammatory bowel disease is diagnosed – to determine extent of colitis and later (greater than eight years), in the presence of pan colitis, as screening for cancer
4. Family history of familial adenomatous polyposis or hereditary non-polyposis colon cancer
5. Sporadic cancer in a family member and age of patient 45 years or older
6. Right sided bowel mass
7. Iron deficiency anaemia
8. Visualization of blood, proximal to limit of flexible sigmoidoscopy
9. Alarm symptoms greater than six weeks

CT COLONOGRAM (CTC)

CTC is a novel imaging technique, it requires bowel preparation, it is minimally invasive (requires CO₂ insufflation per rectum), requires no sedation and is less time consuming than an endoscopic examination. Although the role of CTC in asymptomatic screening population is a matter of ongoing investigation, its use in the examination of patients with incomplete colonoscopy and detection of synchronous lesions in obstructing colon cancers and superior localization of lesions before surgery, and allowing for evaluation of extra luminal and remote findings⁵.

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