

Chapter 7

Gastrointestinal Symptoms***Overview***

Gastrointestinal (GI) and hepatobiliary symptoms are ubiquitous in HIV disease. The prevalence of HIV/AIDS-related nausea and vomiting ranges from 17–30% in studies worldwide, dysphagia up to 50%, and diarrhoea from 11–33%.

GI manifestations result from a wide range of pathogenic etiologies, including protozoan, bacterial, fungal, and viral infections; neoplasms; idiopathic processes such as aphthous ulcerations; and drugs used to manage HIV-related disease. Resulting symptoms include anorexia, bloating, weight loss, and fatigue in addition to organ-specific complaints.

Multiple causes of abdominal pain occur in HIV/AIDS. Common ones include:

- Gastrointestinal tract (GIT) spasm related to gastroenteritis
- Pancreatitis (especially in patients on NRTIs)
- Intra-abdominal lymphadenopathy (TB, lymphoma)
- Kaposi's sarcoma of the GIT (look for skin or mucosal lesions)
- Sclerosing cholangitis (sometimes resulting in hepatitis and cholecystitis)
- Gynaecological related pain (severe pelvic inflammatory disease, tubo-ovarian or pelvic abscesses)
- Non-HIV-related causes (common surgical conditions like appendicitis)
- Cytomegalovirus (CMV)
- Herpetic ulcers

Management depends on the general condition of the patient, available resources, and the patient's wishes. For example, if a patient in Stage III HIV disease (see Table 3.2 in Chapter 3) presents with appendicitis, and surgical intervention is available and reasonably feasible, an attempt should be made to refer the patient for an appendicectomy.

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Nausea and Vomiting

Assessment

Conduct a detailed history of the patient's illness including duration of symptoms, precipitating events, what has been tried to alleviate symptoms, and what has been most useful in management of these symptoms. Evaluate current medications noting those with known GI side effects. In persons with advanced HIV/AIDS increased intracranial pressure can present with nausea and vomiting and should be considered in the review of systems.

Perform a thorough physical exam to localize the symptoms. Look for signs that surgery might be needed. Presence of fever and signs of dehydration (e.g., hypotension) indicate a more serious process. Duration of symptoms can also be a clue to their severity.

If available, consider X-rays or laboratory investigations, which may be helpful in determining severity of the problem or resulting electrolyte imbalance.

Reasons for nausea and vomiting range from mild gastritis and reactions to medications to infectious aetiologies and systemic or metabolic causes.

Drugs to consider: antiretrovirals, digoxin, anticonvulsants, erythromycin, opioids, cytotoxics, sulfadiazine, or possible reaction to traditional herbal therapies.

Infectious aetiologies: Malaria, disseminated GI candidiasis, untreated urinary tract infection or other bacterial infection resulting in sepsis, infection of the liver and/or gall bladder, abdominal wound, viral infestation of the gut, cryptococcal meningitis, or cerebral abscess.

Other conditions: fear/anxiety, constipation, gastric irritation, intestinal obstruction related to Kaposi's sarcoma or (less likely) lymphoma, high blood pressure, central nervous system abnormality, hypercalcaemia, uraemia, or even gastric outlet obstruction that would be drug or medication related.

The three basic mechanisms leading to nausea and vomiting are:

Mechanical: gastric stasis, intestinal obstruction, excessive coughing.

Toxic: drugs, radiotherapy, infection, renal failure, hypercalcaemia.

Central nervous system: brain metastases and raised intracranial pressure (ICP).

Understanding the pathophysiology of vomiting is useful when selecting medications for management. Vomiting is controlled by two functionally distinct brain centres. The chemoreceptor trigger zone (CTZ) is found in the fourth ventricle. When stimulated it sends impulses to the vomiting centre (VC) located in the lateral reticular formation which controls the actual act of vomiting. Symptoms can also originate from irritation of gastrointestinal mucosa.

Management of nausea and vomiting is based on two principal approaches: correcting the underlying causes of the nausea and vomiting, and utilising appropriate measures, including pharmacologic agents, to alleviate the symptoms.

Management

Treating Reversible Causes

If a reversible cause is identified, treat accordingly.

Treat infections with appropriate antimicrobials.

If medication is suspected, choose an alternative if possible. In the case of antiretrovirals it is best to use symptomatic therapy even prophylactically at the time of original prescription. These symptoms will usually resolve after 2–3 weeks and should be further evaluated if they persist or if they are accompanied by fever.

If available, consider the following:

IV fluids to ‘rest the gut’: Sometimes it is best to ‘rest the gut’ by administering intravenous fluids that may contain replacement electrolytes as needed. Patients usually have to be admitted to an inpatient facility for this treatment.

Reduction of ICP: Increased intracranial pressure is often an emergency. Give dexamethasone to decrease the pressure, but for cryptococcal or other infections the spinal fluid should be removed on a daily basis.

Non-Pharmacologic Symptom Management

Numerous interventions can reduce or eliminate the problem, depending on the cause.

- Give clear liquids initially and boil water if not filtered; advance to full liquids as tolerated.
- Give small, frequent meals.
- Let the patient select the type of food he/she prefers.
- Avoid fried and fatty food.
- Keep patients away from the place where food is being cooked (to avoid smell and sight of food).
- Encourage patient to be in a sitting position after eating for at least 30 minutes.

- Clean wounds thoroughly to remove the smell. Powdered or crushed metronidazole tablets can be sprinkled on the wound to dry it and remove the smell. It is helpful to place peppermint or some other fragrant plants in the room to mask the odor of open wounds.
- Take appropriate precautions to minimise the patient’s risk of aspiration.
- Fear and anxiety may require a referral to the social worker. Anxiolytics can be used but it is important to understand the root of the problem first. Sometimes just finding someone to listen to the problem may be useful.

Pharmacological Symptom Management

Symptomatic therapy may include the use of one or more drugs at the same time (see Table 7.1). Ranitidine, or, *if available*, cimetidine, can relieve mild nausea related to anxiety/stress, early peptic ulceration, or the side effect of some medications. Care should be taken not to change the pH of the gastric juices if contaminated water is suspected as the aetiology for symptoms. Benzodiazepines have been used effectively in cancer patients who suffer anticipatory nausea.

Antiemetics work in three major areas:
Gastrointestinal tract (Prokinetic antiemetic);

Postrema area (CTZ — for most chemical causes);
and Vomiting Centre (Mannix, 2003). It is important to consider the cause and site of action of the drugs being used.

Start with an appropriate first line drug depending on cause (Twycross 1998):

Mechanical causes (except complete intestinal obstruction): *If available*, metoclopramide 10 mg 6 hourly PO or 40–100 mg/24 h by continuous subcutaneous infusion (CSI).

Toxic causes: haloperidol 1–5 mg PO daily in a single dose nocté or by CSI over 24 h.

Raised ICP or intestinal obstruction: *If available*, cyclizine 50 mg PO 8 hourly, 100 mg PR 8 hrly, or 150 mg/24 h by CSI.

For severe vomiting administer antiemetics by suppository or continuous subcutaneous injection (CSCI). For patients with chronic nausea, give drugs using a butterfly needle inserted subcutaneously on the anterior chest wall, or *if available*, consider around-the-clock administration of antiemetics using a portable battery-operated syringe driver.

Also use second line drugs (choose a drug with a different mode of action):

Combine haloperidol with metoclopramide or cyclizine. This may be needed in about a third of cases.

NB: Don't combine metoclopramide and cyclizine as the prokinetic effect of the first is cancelled by the anticholinergic effect of the second.

Add dexamethasone 4–20 mg once daily PO or SC, especially in cases of raised ICP but this also may also be beneficial for 'toxic' and mechanical causes.

Add hyoscine butylbromide 60–120 mg/24 h CSI to reduce cramps and secretions in intestinal obstruction.

Cannabis may have a place in intractable nausea and vomiting in advanced AIDS.

Table 7.1 Dosage Information for Many of the Antiemetic Agents

Drug Class	Drug and Dosage
Butyrophenones	haloperidol: 0.5–2.0 mg PO or IM 2–4 times/day
Phenothiazines	prochlorperazine: 5–10 mg PO, PR, or IV 6–8 hourly
	promethazine: 12.5–25 mg PO, PR, SC, or IV 4–6 hourly
Substituted benzamides	metoclopramide: 5–10 mg PO, IV, or SC 4–6 hourly
Antihistamines	promethazine: 12.5–25 mg PO, IV, IM or PR 4–6 hours <i>If available</i>
	diphenhydramine: 25–50 mg 4–6 hourly
	hydroxyzine: 25–100 mg 3–4 times/day
Glucocorticoids	dexamethasone: 4–12 mg/day in 3–4 divided doses
Cannabinoids	dronabinol: 5 mg 3 times/day
Benzodiazepines	lorazepam: 0.5–2.0 mg 4–6 hourly
<i>If available:</i>	
Serotonin antagonists	ondansetron: 4–8 mg PO or IV 8–12 hourly
	granisetron: 1–2 mg PO or 10 mg/kg IV 12 hourly
	dolasetron: 50–100 mg PO or 12.5–100 mg IV daily
Anticholinergic agents	scopolamine: 1.5 mg transdermal patch q 3 days

Source: Adapted from Wohlfeiler, 2003.

Dysphagia and Odynophagia

Assessment

Dysphagia (difficulty swallowing) and odynophagia (painful swallowing) are the most common HIV-related oesophageal symptoms, and are usually caused by opportunistic infections (especially *Candida albicans* and cytomegalovirus, but also *herpes simplex* virus, *Mycobacterium tuberculosis*, and *Mycobacterium avium*). These symptoms can also be caused by idiopathic ulcers (aphthous ulcers — usually seen in the oral cavity at the same time), Kaposi's sarcoma, gastro-oesophageal reflux disease, and pill-induced oesophagitis. Cytomegalovirus and herpetic esophagitis are usually a more severe and very localized pain. Herpetic lesions may be seen in the oral cavity at the same time; these are often quite bloody and distinguishable from deeper and cleaner aphthous ulcers. See Chapter 8: Mouth Care.

Patients with oesophageal candidiasis may also present with hiccups and these are managed by treating the infection.

If available, the gold standard for diagnosis of these symptoms is endoscopy. However it is not readily available in many settings. Sequential empiric therapy is a reasonable initial approach.

Management

Treating Reversible Causes

Dysphagia and odynophagia must be addressed aggressively in the palliative care setting. Inadequately managed symptoms will likely cause a significant diminution in the patient's quality of life and lead to other complications such as anorexia, weight loss, malnutrition, and the inability to take oral medications. Almost all oesophageal infections in patients with AIDS are treatable, and palliation of symptoms is best achieved by treating the underlying disorder.

Candida oesophagitis: This is the most common cause of dysphagia and odynophagia. The presence of oral thrush suggests the presumptive diagnosis and symptomatic treatment is appropriate. Systemic treatment is preferable to topical treatment.

Treat topically with nystatin oral suspension 5 mL daily.

Treat with a systemic antifungal. Fluconazole is currently the treatment of choice because of widespread availability: Start with a 200 mg loading dose and then give 100 mg daily for 2 weeks, monitoring for recurrence of symptoms. Patients with advanced immune suppression may require initial doses as high as 400 mg daily and may need chronic suppressive therapy until immune status improves. These are patients who could be prioritized for ART.

Herpes oesophagitis: Treat with oral aciclovir. The condition is quite painful and usually requires analgesics including morphine when available.

Idiopathic or aphthous ulcers: Treat either with a course of corticosteroids, or *if available*, thalidomide.

If available, consider the following:

Fungal disease: Other oral medications include itraconazole and ketoconazole, both are more expensive and not as readily available.

Cytomegalovirus oesophagitis: Treat odynophagia or dysphagia caused by CMV infection with an appropriate course of anti-CMV therapy (see Table 7.2: Drugs Used to Treat Infections Causing Diarrhoea). However, ganciclovir is very expensive and not readily available in most African countries.

Azole-resistant candidiasis: Use intravenous medications such as amphotericin-B or the new antifungal caspofungin acetate (Cancidas) although the latter is very expensive and only available in primary national hospitals.

Pharmacologic Symptom Management

Treat odynophagia with standard analgesics or viscous lidocaine (see Chapter 8: Mouth Care). But it is often ineffective to treat the symptoms without addressing the underlying pathology.

Diarrhoea

Assessment

Diarrhoea is the most common GI symptom in HIV disease, affecting the majority of patients at some time in the disease process. It can be bacterial, viral, protozoan, or fungal. Although often occurring even before the immune system is affected, it can become a chronic symptom in end-stage AIDS because of the effects of HIV on motility. Many of the ARV drugs result in diarrhoea (see Table 12.1). Patients who are bed-ridden with reduced activity and poor fluid intake may become constipated and appear to have 'diarrhoea' when stool liquefies around a hard impaction.

Acute diarrhoea with fever is usually caused by bacteria (e.g., *Escherichia coli*, *Salmonella*, *Shigella*, and *Campylobacter*). Chronic diarrhoea can be due to parasites (*Cryptosporidia*, *Isospora*, *Giardia*, *Microsporidia*, and *Strongyloides*), disseminated TB, *Mycobacterium avium intracellulare* (MAI), herpes viruses including cytomegalovirus (CMV), and adenoviruses.

In evaluating a patient with diarrhoea, first attempt to determine the aetiology. Take a careful history to determine:

- Whether the diarrhoea is acute (defined as lasting <7–14 days) or chronic (lasting more than two to three weeks) and if there is temporal relationship to a new medication
- The characteristics of the diarrhoea (e.g., large or small volume, frequency, presence of blood, presence of large amounts of gas)
- The existence of associated symptoms, such as abdominal pain or fever
- Dietary practices or contaminated water supply

In chronic diarrhoea, consider the following pathologies as possible aetiologies:

- osmotic (e.g., pancreatic insufficiency and malabsorption)
- altered intestinal motility (e.g., irritable bowel syndrome)
- lactose intolerance
- inflammatory (e.g., Crohn's disease)
- secretory (e.g., hormone-mediated diarrheas such as carcinoid syndrome)

Review medications carefully and discontinue drugs sequentially to judge effect on the diarrhoea. A number of antiretroviral drugs (especially the protease inhibitors) are commonly associated with diarrhoea.

Review medical history for previous diagnoses with enteric pathogens, since symptoms often will be secondary to reactivation. History of what medication was successful in treatment previously may be helpful.

Conduct a thorough physical examination of the patient. Inspect the mouth for oral candidiasis, a very common cause of chronic diarrhoea. Look for signs of dehydration (including rapid pulse, dry mouth, coated tongue, sunken eyes, and poor skin elasticity), which is important in the management of the patient. Examine the abdomen.

Always monitor patients for the development of constipation or fecal impaction, especially when they are getting inadequate fluid intake.

If available, consider the following:

Stool samples: A limited, noninvasive diagnostic work-up may be appropriate although it is reasonable to treat for the suspected aetiology initially. Obtain a stool sample for:

- Presence of white blood cells suggesting an infectious aetiology
- Routine culture and sensitivity
- Ova and parasites
- Acid-fast bacilli culture (for TB)
- Modified ZN staining (for *Cryptosporidium*)
- *Clostridium difficile* toxin

Consider CMV colitis in patients who have advanced immunosuppression ($CD4 < 50/mm^3$) and diarrhoea accompanied by low-grade fever and abdominal pain, with or without rebound tenderness. If CMV is suspected, conduct an ophthalmologic examination to look for CMV retinitis. *Mycobacterium avium* complex (MAC) is a more frequent pathogen although probably under-diagnosed in the setting of endemic MTB. It can be differentiated by high fevers with night sweats and abdominal pain in a patient who is losing weight but does not appear to be toxic.

Colonoscopy or flexible sigmoidoscopy: In some cases it may be consistent with palliative principles to conduct one of these tests to confirm a suspected diagnosis of CMV colitis or salmonella, especially now that there exists a well-tolerated (though expensive) oral medication (valganciclovir) that can effectively treat CMV end-organ disease without the need for IV access.

Management

Treating Reversible Causes

For most patients in advanced AIDS with diarrhoea, it is appropriate to initiate therapy with limited or no work-up. If the specific cause is clearly identifiable, attempt to correct it (see Table 7.2). In many patients, however, a specific treatable cause will not be found and therapy should be empiric and symptom-targeted, using a brief trial of an antiparasitic and an antibacterial medication. Empiric treatment might include (see Table 7.3 for doses):

metronidazole, albendazole,

or if available,

paromomycin and ampicillin or ciprofloxacin

If diarrhoea persists after empiric treatment, obtain cultures and sensitivities on a stool sample.

If available, consider the following:

CMV colitis: If intravenous medications are available, start with ganciclovir using an induction dose followed by maintenance. It is best for this therapy to be given by a GI or infectious diseases expert. Discontinue maintenance therapy after 4 weeks and monitor the patient for signs and symptoms of recurrence. Treatment of HIV disease itself is useful in halting the progress of CMV disease; therefore this is a patient to prioritize for early ART.

Table 7.2: Drugs Used to Treat Infections Causing Diarrhoea

Infection	Drug	Dosage
<i>Candida</i>	fluconazole itraconazole ketoconazole	100–200 mg/day for 2 wks 200 mg/day for 2–3 wks 200–400 mg for 1wk
<i>Salmonella</i>	ciprofloxacin	500 mg bd for 6 wks
<i>Isospora belli</i>	co-trimoxazole (single strength)	4 tabs bd for 4 wks
<i>Giardia</i> and <i>Entamoeba</i>	metronidazole	200–400 mg 8 hourly for 1 wk
<i>Shigella</i>	ciprofloxacin	500 mg bd for 1 week
<i>Campylobacter</i>	erythromycin	500 mg 6 hourly for 5 days
<i>Microsporidia</i>	albendazole	400–800 mg bd for 2–4weeks
<i>Mycobacterium avium</i> complex (MAC)	clarithromycin (plus) ethambutol	500 mg 2 times/day lifelong 800 mg daily
<i>Cryptosporidium</i>	paromomycin ART (induce remission)	500 mg 4 times/day for 2–4 wks
Tuberculosis (TB)	Standard treatment (RHEZ)	
Worm infestation	thiabendazole, mebendazole, niclosamide, albendazole	Depends on worm isolated
Cytomegalovirus	ganciclovir	5 mg/kg IV bid for 2–3 wks
Herpes simplex	aciclovir or famciclovir or valaciclovir	400 mg 5x daily for 1wk 250 mg 3 times/day for 1wk 500 mg 2 times/day for 1wk

Source: Information taken from standard textbooks.

Non-Pharmacologic Symptom Management

Rehydrate the patient: If the dehydration is not too severe, oral fluid replacement may be adequate. If patient is at home, a homemade oral hydration fluid can be used (see Box 7.1). Also replace potassium by giving foods such as tomatoes, bananas, or a potassium supplement.

Advise the patient and caregivers to:

- Boil drinking water and store it in a clean container with a cover.
- Wash hands with water and soap before eating food and after visiting a toilet.
- Wash all vegetables and fruits with cool boiled water to eliminate ova/worms found on vegetables, and reduce the transmission of some infective organisms. Boiled water kills organisms found in contaminated water.
- Avoid raw or under-cooked meat and eggs to prevent some bacterial and parasitic infections.
- Avoid fatty foods, concentrated fruit juices, alcohol, and coffee.
- Use high-fibre foods such as beans, rice, maize meal, cassava, green bananas, whole grain bread, potatoes, and yams.
- Protect the peri-anal skin from excoriation by using petroleum jelly or aluminum hydroxide and keeping it clean and dry (also see Chapter 9: Skin and Wound Care).
- Eat yoghurt and other sour milk foods (and drinks) to restore the normal bowel flora.

Box 7.1:

Oral Rehydration Solution

2 teaspoons of sugar
2 finger pinches of salt
Mix in mug of clean, cool, boiled water
Add a little fruit juice for flavor if desired

Pharmacologic symptom management

Dosage information for some drugs used to treat diarrhoea is presented in Table 7.3.

Supplement the diet with psyllium and bulk-forming laxatives, which are not digested but absorb liquid in the intestines and swell to form a soft, bulky stool. Also use hydrophilic agents to absorb water and enhance stool consistency (although these can cause significant problems such as blockage in the gut if the patient is immobile and has poor fluid intake).

For symptom control, start with antimotility agents such as loperamide, *if available*.

Intravenous fluids may be appropriate in a patient with dehydration secondary to severe acute or chronic diarrhoea. Decisions should be made on a case-by-case basis.

For severe, chronic diarrhoea, oral morphine will slow contractility. Start with a small dose every four hours. Titrate the dose upward until symptom control is achieved.

If available, consider the following:

Nitazoxanide, an oral drug still in clinical trials in parts of Africa, has demonstrated significant clinical response particularly in persons with very low CD4 counts (Zulu, 2005).

Pancreatic hormone replacement may benefit patients with malabsorption resulting from dysfunction of the exocrine pancreas.

Table 7.3: Antidiarrhoeal Agents

Drug	Dosage
Loperamide	4 mg stat, then 2 mg after each stool (maximum 16 mg/24 hours)
Codeine phosphate	30–120 mg 4–6 hourly
Diphenoxylate	2.5–5 mg 6–8 hourly
Morphine elixir	From 5 mg 4 hourly titrated upwards
Kaolin- pectin	10–20 ml 4 hourly
Hyoscine butylbromide (antispasmodic- reduces bowel activity)	20 mg 3 times daily
Ispaghula husk or psyllium to thicken stool	1 sachet in water twice/day (after meals)
Cholestyramine (in secondary malabsorption)	12–24 mg daily mixed in water

Constipation

Assessment

Constipation can be difficult to diagnose since people have a wide range of bowel habits. The definition of constipation usually includes a frequency of fewer than three bowel movements a week, but can also include subjective symptoms such as excessive straining, a sensation of lower abdominal fullness, and hard stools.

In the palliative care setting, constipation is often caused by drugs such as opiates that reduce colonic motility. In addition, very sick patients have limited physical activity, low fluid intake, and prefer a low residue and fibre diet, which puts them at increased risk of developing constipation. In hospital, unfamiliar toilet arrangements such as the use of bedpans and lack of privacy can also lead to constipation.

Other drugs that can cause constipation are hyoscine, phenothiazines, tricyclic antidepressants, antacids, diuretics, anticonvulsants, iron, antihypertensives, antihistamines, and vincristine. Medical conditions that can contribute to constipation include diabetes, hypothyroidism, hypokalemia, rectocele, cerebrovascular accidents, and Parkinson's disease. Malignancies such as Kaposi's sarcoma can cause mechanical obstruction.

Management

Non-Pharmacologic Symptom Management

If the patient is dehydrated, rehydrate and then improve fibre content of the diet.

Treat mild constipation by increasing the patient's dietary fibre intake to a minimum of 20–35 grams daily (see section on diarrhoea for high-fibre foods and fibre supplements).

Encourage patients to be mobile and provide them with privacy when using toilet facilities.

Take preventive measures when constipating drugs like opioids are prescribed.

Pharmacologic Symptom Management

Constipation in persons with HIV disease is often related to medications and, thus, preventive measures are the most successful. If non-pharmacological measures are not effective, laxatives are appropriate (see Table 7.4). Although hard stool requires a softener and soft stool requires a peristaltic stimulant, a combination of both is better with fewer side effects. A variety of different laxatives can be effectively used, including:

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- *Stimulant* laxatives, which cause intestinal motility to increase. Commonly used stimulant laxatives include senna, bisacodyl, and calsanthranol.
- *Emollient* laxatives, such as mineral oil and liquid paraffin, which are given orally or by enema. They act by penetrating and softening the stool.
- *Hyperosmolar* agents, which contain polyethylene glycol and nonabsorbable sugars such as lactulose and sorbitol that act as osmotic agents.
- *Saline* laxatives, which exert an osmotic effect that increases intraluminal water content. Docusate salts are preferred for preventing constipation. They are anionic surfactants that lower the surface tension of the stool to allow mixing of aqueous and fatty substances, thereby softening the stool.
- Suppositories or enemas can be given, especially when oral laxatives alone are insufficient. Examples: glycerine or bisacodyl.
- Herbal remedies, which vary by location, can also be used for constipation.

Table 7.4: Agents to Relieve Constipation

Drug Class	Drug and Dosage
Stimulant laxatives	bisacodyl: 5–10 mg orally casanthranol: 1–2 capsules or tablespoons (syrup) 1–2 times daily senna: 17.2 mg nocté
Osmotic laxatives	lactulose: 15–30 mL twice daily PO or PR sorbitol: 70% solution 15–30 mL twice daily PO or PR
Emollient laxatives (stool softeners)	docusate: 200–800 mg/day in 2 divided doses
Combination agents	docusate (50mg) <i>plus</i> senna (8.6 mg) tablets: 2–4 tablets once or twice daily

Source: Wohlfeiler, 2003.

Anorectal Disease

Assessment

Anorectal diseases are often overlooked in people with HIV/AIDS and can be difficult to manage. These diseases seldom cause life-threatening complications but are a major cause of patient discomfort and disability (Hyman, 1997).

The spectrum comprises hemorrhoids, anal fissures, anorectal abscesses, benign and malignant HIV-related conditions including anal lymphoma, infections such as *herpes simplex*, cytomegalovirus, *Neisseria gonorrhoea*, *Chlamydia*, *condyloma acuminatum*, anal incontinence, rectal prolapse, and pruritus ani (Zuckschwerdt, 2001; Hyman, 1997).

History and physical examination will usually reveal the diagnosis.

If available, consider the following:

If diagnosis is not determined on history and physical examination, anoscopy may be helpful, followed by sigmoidoscopy if no relief is achieved using simple measures.

Stool cultures can isolate most of the infections mentioned above.

Management

Treating Reversible Causes

Treat infections once they are identified, using the standard drugs.

Anal incontinence may be due to fecal impaction, which should be corrected. With a high impaction (presenting with thick liquid stool chronically oozing from rectum) unrelieved by local measures such as enema, an osmotic agent such as sorbitol may be able to dislodge the fecal mass. Solidifying the stool with antidiarrhoeal agents can help. *If available*, surgical correction of the condition can be tried after careful selection of the patient.

Abscesses are a major cause of anal pain and the pain will disappear once they are drained. The incision should be as close as possible to the anus to keep any fistula tract short if it occurs as a complication. *If available*, a surgeon should do most of the surgical procedures.

Rectal prolapse: *If available*, refer to a surgeon.

Pharmacologic symptom management

Peri-rectal disease can be quite uncomfortable and may even require the use of opioids for relief. (see Chapter 4: Pain Management).

Hemorrhoids normally resolve without any treatment. If they persist, such simple measures as increasing fluid intake plus a high-fibre diet can help. *If available*, surgery can be done if all else fails.

Pruritus ani can be caused by prolapsing hemorrhoids, mucosal prolapse, or secretory villous adenomas of the rectum that cause continued perianal moisture resulting in irritation and itching. Generally good anal hygiene can help, while soap, powders, or any chemical which can irritate the skin should be avoided (see Chapter 9: Skin and Wound Care). Caffeinated and alcoholic beverages have been known to irritate the anal region and might be avoided.

If available, consider the following:

Anal malignancies: Treat with chemotherapy, alone or in combination with radiotherapy. Surgical treatment is reserved for failures of chemoradiation therapy (Hyman, 1997).

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Suggested Resources

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