Diarrhea and AIDS

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Pearls and Pitfalls

- Protease inhibitors decrease the risk of infectious diarrhea.
- Cryptosporidiosis is a difficult condition to manage in HIV/AIDS patients.
- Patients, who do not have an infectious etiology, can also be treated with anti-motility and anti-secretory agents for symptom management.

HIV and AIDS affect over 30 million people worldwide, and diarrhea affects 28–60% of HIV-positive patients [1, 2]. Patients who have low CD4 counts (less than 350) are highly susceptible to a range of opportunistic infections. Approximately half of HIV/AIDS patients presenting with diarrhea have an infectious etiology. Noninfectious causes include medication side effects from antiretroviral (ART) therapy, enteropathy from depletion of CD4 T-cell lymphocytes in the gastrointestinal lymphoid tissue, malabsorption from their chronic illness, and malignancies due to the progression of HIV to AIDs [2–7]. Due to the destruction of the CD4 T lymphocytes, patients are more susceptible to severe dehydration and malabsorption.

Infectious Considerations for HIV Patients with Diarrhea

Common bacterial etiologies of diarrhea in HIV-positive patients include *Campylobacter*, *Shigella*, *Salmonella*, *Escherichia coli*, and *Clostridium difficile*. While often the cause of diarrhea in non-HIV-positive patients, the clinical course can be prolonged and more severe for HIV patients. A brief synopsis of common infectious causes of diarrhea in the HIV population and their treatment is found in Table 102.1.

Cryptosporidiosis is a difficult condition to manage in HIV/AIDS patients. Nitazoxanide has demonstrated no benefit compared to placebo [14]. Though a higher dose and longer treatment course may produce benefit, the drug has not been approved by the FDA in high doses [14]. A Cochrane review supports its use as an option alone or in combination with other antimicrobials as well as emphasizes the importance of immune reconstitution with HAART for curative therapy [15].

Treatment for Noninfectious Causes of Diarrhea

Patients, who do not have an infectious etiology, can also be treated with anti-motility (e.g., loperamide, diphenoxylate, opiates) and anti-secretory agents. However, it is important to counsel patients who are suffering from diarrhea from protease inhibitors that they should continue their medication. Protease inhibitors decrease the risk of infectious diarrhea from 53% to 13% [9, 10]. Patients with chronic diarrhea from HAART should be managed in close consultation with their infectious disease doctor to help mitigate side effects.

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Table 102.1 Common Causes of Diarrhea in HIV/AIDs Patients

Common causes	
Lymphogranuloma venereum	Can lead to severe proctocolitis with ensuing perirectal abscesses, strictures, and fistulas Treatment: doxycycline 100 mg PO BID × 21 days
Clostridium difficile	Most common cause of diarrhea in advanced AIDS [8] Risks: antibiotic use and prophylactic treatment of PCP pneumonia [9] Treatment: vancomycin PO
Cytomegalovirus	Most common viral GI infection in AIDS patients [10, 11] Symptoms: rectal bleeding, abdominal pain, fever, and weight loss [10, 12] Treatment: ganciclovir, foscarnet, and valganciclovir [13]
Cryptosporidium	Protozoa infection that causes 60,000 cases per year in the USA [10] Risks: poor sanitation Symptoms: watery diarrhea, malabsorption, severe dehydration, electrolyte abnormalities [10, 12] Treatment: supportive measures and treatment with nitazoxanide or rifampin [13]
Microsporidium	Protozoa that affects small intestine [10] Symptoms: causes a malabsorptive state in immunocompetent patients [10] Treatment: albendazole associated with treatment failure; other potential therapies include metronidazole, azithromycin, and doxycycline
Entamoeba histolytica	Symptoms: colitis, ulceration, hematochezia, and toxic megacolon [10] Treatment: metronidazole
Mycobacterium avium complex (MAC)	Found throughout our environment Transmission via inhalation or ingestion Symptoms: fever and weight loss [10] Treatment: combination of clarithromycin and azithromycin [13]. Additional treatments include amikacin and streptomycin in severely immunocompromised patients (CD4 <50)

Suggested Resource

- Logan C, Beadsworth M, Beeching N. HIV and diarrhea: what is new? Curr Opin Infect Dis. 2016;29(5):486–94.

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