

Chapter 4

PROCTITIS, ENTERITIS, AND PROCTOCOLITIS

Sexually transmitted anorectal infections with syphilis, gonorrhea, HPV (genital warts), and chlamydia (including lymphogranuloma venereum or LGV) have been recognized for many years, while infections such as shigellosis, salmonellosis, hepatitis A and B, giardiasis, and amebiasis have not been considered sexually transmitted until recently (Table 4-1). All of these infectious diseases, as well as the syndromes of enteritis and proctitis became very common among gay males in the 1970s and early 1980s. Their incidence decreased in the AIDS era, probably due to changing sexual practices and increased use of condoms. However, in the late 1990s rectal bacterial STDs increased among men who have sex with men (MSM) in many cities in the United States and Europe. Transmission of these pathogens is facilitated by exposure to multiple sexual partners, by specific sexual practices (especially anal intercourse and anilingus), and by the ability of small inocula of these agents to cause infection.

ETIOLOGY

The sexually transmitted organisms most commonly responsible for anorectal and enteric infections in MSM are shown in Table 4-1. In patients with AIDS, opportunistic gastrointestinal infections such as cryptosporidiosis, microsporidiosis, or *Mycobacteria avium intracellulare* infections may occur but this chapter will not discuss them.

TABLE 4-1

SEXUALLY TRANSMISSIBLE CAUSES OF INTESTINAL OR ANAL INFECTIONS

Bacterial pathogens

Calymmatobacterium granulomatis
(granuloma inguinale)
Chlamydia trachomatis (including
LGV serovars)
Haemophilus ducreyi
Neisseria gonorrhoeae
Treponema pallidum (syphilis)

Enteric bacterial pathogens

Campylobacter sp.
Salmonella spp.
Shigella spp.
Yersinia spp.

Protozoa

Cryptosporidia sp.
Dientamoeba fragilis (?)
Entamoeba histolytica
Giardia lamblia
Isospora belli sp.
Microsporidia
“Nonpathogenic” protozoans (?)

Viruses

Adenovirus
Cytomegalovirus
Herpes simplex virus (HSV)
Human papillomavirus (HPV)
(genital warts)

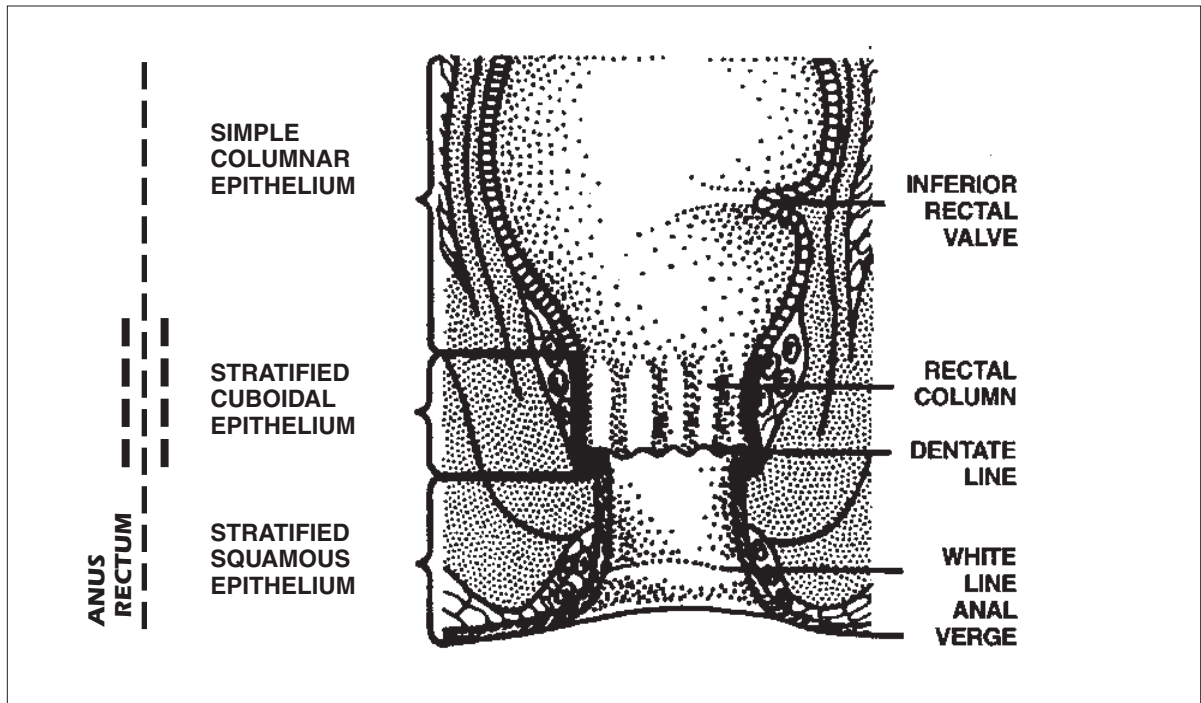


Figure 4-1
 Diagram of the rectum and anal canal, showing normal anal and rectal structures and the types of epithelium lining them.

CLINICAL MANIFESTATIONS

The normal anorectal anatomy is illustrated in Figure 4-1. Symptoms and signs of infection can vary depending on the exact location of the infection. Proctitis, proctocolitis, and enteritis generally have different infectious etiologies, so it is important to be able to distinguish these syndromes. It is also important to realize that some patients with anorectal or enteric infections may be asymptomatic, and some may have polymicrobial infections.

The term “proctitis” refers to inflammation of the rectal mucosa. Symptoms include constipation, tenesmus, rectal discomfort or pain, passage of bloody stools, and a mucopurulent rectal discharge, which is occasionally misinterpreted by the patient as diarrhea. Findings on anoscopy or sigmoidoscopy may range from normal mucosa with only mucus present to diffuse inflammation of the mucosa with friability or discrete ulcerations. If these findings are limited to the rectum, and the mucosa above 15 cm is normal, the condition is properly termed proctitis. If the mucosa is abnormal above 12 to 15 cm, then proctocolitis is present. A rectal biopsy will provide histologic confirmation of proctitis and may reveal nonspecific inflammation or changes highly suggestive of certain infections such as lymphogranuloma venereum (LGV), herpes simplex virus (HSV), or syphilis.

Enteritis is an inflammatory illness of the duodenum, jejunum, and ileum, and thus sigmoidoscopy will show no abnormalities. Infectious enteritis is usually caused by ingestion of pathogens, either from fecal-oral sexual contact or via non-sexual means, for example, ingestion of contaminated food or water or fecal-oral spread via poor hygienic practices. Symptoms of enteritis consist of diarrhea,

abdominal pain, bloating, cramps, and nausea. Additional symptoms may include flatulence, urgency, a mucous rectal discharge, and in severe cases, melena. Systemic symptoms such as fever, dehydration, malabsorption syndrome, weight loss, and myalgia may also be present.



Perianal chancres (syphilis) [8]



Rectal HSV infection with perianal ulcers [9]

Perianal lesions caused by syphilis, HSV, granuloma inguinale, chancroid, and genital warts (HPV) generally resemble the corresponding lesions as they appear elsewhere in the genital area (see chapter 9 on Genital Ulcers). Symptomatic infection of the anal canal is commonly very painful and often results in constipation and tenesmus.

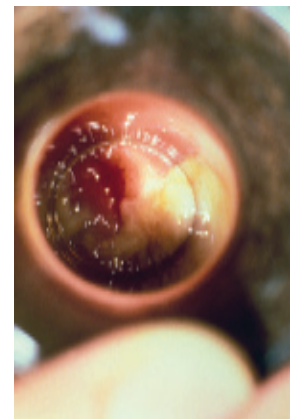
DIAGNOSIS

History and examination

In taking the patient's history, inquire about types of sexual practices, condom use, and possible exposure to pathogens known to cause proctitis, proctocolitis, and enteritis, either through sexual practices or travel in countries with poor public health standards or poor personal hygiene. The physical exam should include inspection of the anus and anoscopy (avoiding or minimizing use of bacteriostatic lubricants which might interfere with bacteriological studies) to identify general mucosal abnormalities. Look for friability and exudate, as well as discrete polyps, ulcerations or fissures, which should be cultured and biopsied if appropriate.

In general, patients with symptoms and signs of less than 2 weeks duration can be classified into one of the three syndromes (proctitis, proctocolitis, or enteritis) based on their history and examination.

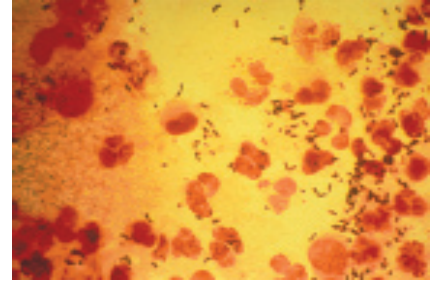
It must be remembered that infection with several pathogens may occur and that overlapping symptoms may make differentiation on clinical grounds even more difficult. Diagnostic possibilities based on clinical findings are summarized in Table 4-2.



Proctitis due to *C. trachomatis* [10]

Laboratory

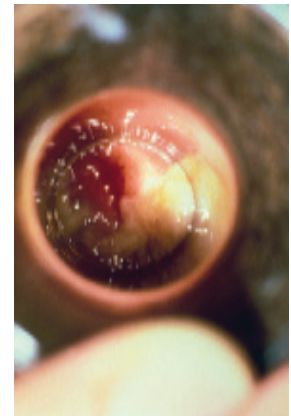
1. Gram-stained smear of the rectal mucosa obtained during anoscopy (≥ 1 PMN /1000X oil immersion field (OIF) considered indicative of proctitis); cultures for *Neisseria gonorrhoeae* (GC), *Chlamydia trachomatis* (CT), and herpes simplex virus. Nucleic acid amplification tests (NAAT) are not currently approved for use on rectal specimens.
2. If perianal or rectal ulcers are seen, also perform
 - serologic test for syphilis (RPR or VDRL), and
 - darkfield examination.
3. If enteritis or proctocolitis are likely, based on fever, bloody diarrhea, or milder diarrheal symptoms persisting 1 week without diagnosis:
 - culture stool for *Salmonella*, *Shigella*, and *Campylobacter*, and
 - send stool for ova and parasites (O & P) exam.



Rectal Gram stain showing intracellular Gram-negative diplococci [11]

DIFFERENTIAL DIAGNOSIS

Specific clinical characteristics suggesting proctitis, proctocolitis, and enteritis are shown in Table 4-2. Identifying the appropriate syndrome is important, because it limits the number of pathogens that need to be sought. An abnormal anoscopic exam and/or increased leukocytes on a rectal Gram stain (≥ 1 PMN/1000X OIF) strongly suggest anorectal infection. If no infectious etiology can be found despite appropriate tests, and a trial of antimicrobial therapy has no effect, then HIV testing should be done, and HIV-associated opportunistic pathogens should be sought in HIV-infected persons. Other diagnoses such as inflammatory bowel disease should also be considered. Additional noninfectious conditions that could be confused with rectal or enteric infection include trauma, foreign bodies, radiation colitis, chemically-induced colitis (due to drugs, soap, lubricants, and so on) and neoplasm.

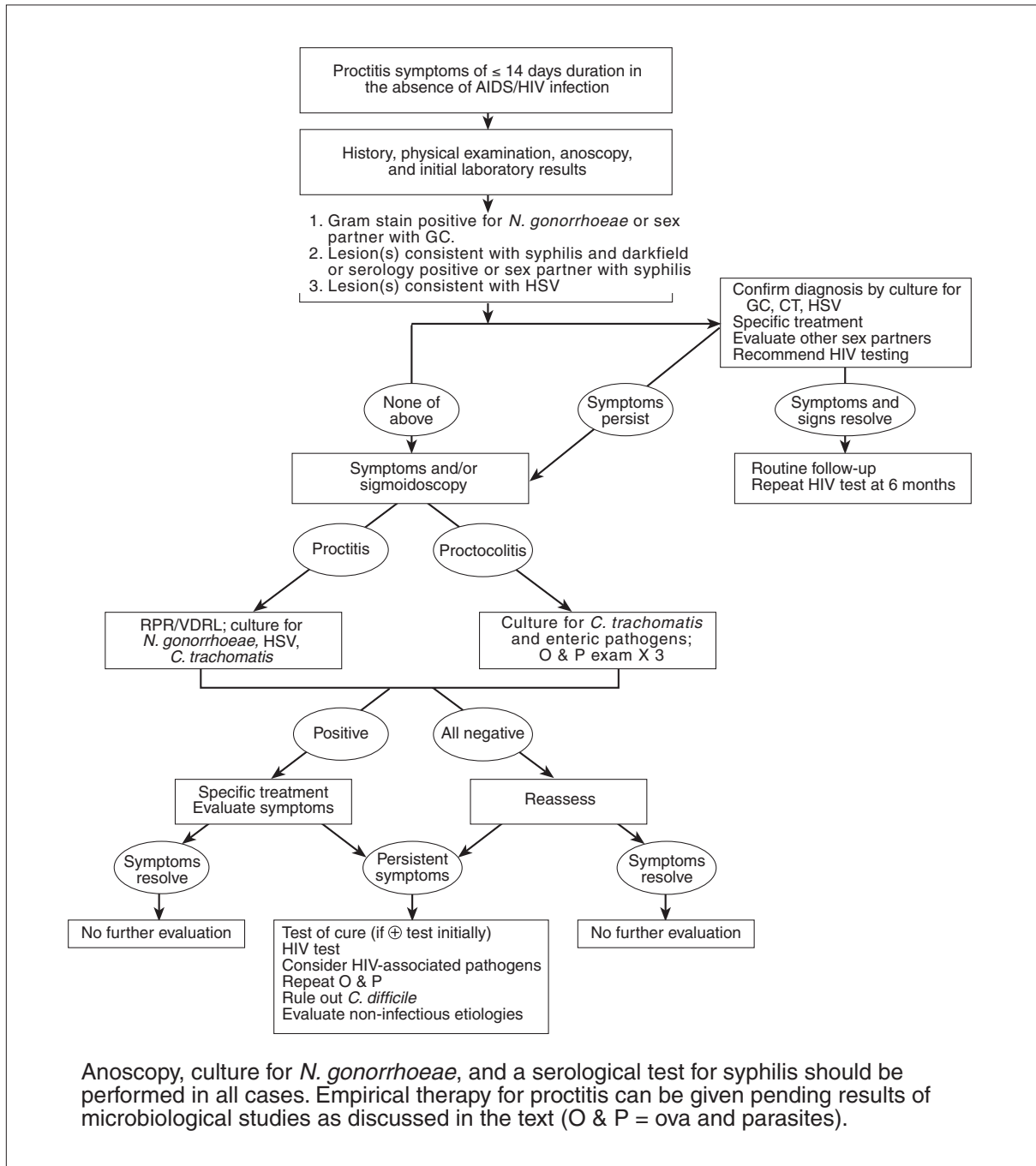


Proctitis due to *C. trachomatis* [10]

TABLE 4-2**CHARACTERISTIC FEATURES OF INFECTIONS OF THE BOWEL**

SYNDROME	LOCATION	CLINICAL FINDINGS	POSSIBLE PATHOGEN
PROCTITIS	Rectum	Any combination of rectal discharge (including mucus or exudate on stools), rectal pain, tenesmus, or anal pruritus; constipation is common in severe cases. On examination, external anal erythema or lesions may be seen; anoscopy may show any combination of mucosal edema, erythema, bleeding, ulceration, or inflammatory exudate. If a sigmoidoscopy is done, abnormalities are limited to distal 10-12 cm.	<i>N. gonorrhoeae</i> , HSV-2, chlamydia, <i>T. pallidum</i>
PROCTO-COLITIS	Rectum and colon	Symptoms of proctitis, plus diarrhea and/or abdominal cramps; examination as for proctitis, but involvement extends proximally to >12 cm; abdominal palpation may show left lower quadrant tenderness.	<i>C. jejuni</i> , <i>Shigella</i> , chlamydia (LGV), <i>E. histolytica</i>
ENTERITIS	Jejunum, duodenum, and ileum	Diarrhea, sometimes bloody; abdominal pain, cramps, nausea, bloating, or fever may also occur; anoscopy normal. Abdominal palpation may show diffuse or localized tenderness.	<i>G. lamblia</i> , <i>Shigella</i> , <i>Salmonella</i> , <i>Campylobacter</i> , <i>Yersinia</i>

Figure 4-2 shows an algorithmic approach to the evaluation of these patients.



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Figure 4-2
Algorithm for management of anorectal symptoms in MSM.

TREATMENT

For a more detailed discussion of these regimens and other treatment considerations, please refer to the CDC STD Treatment Guidelines at <http://www.cdc.gov/std/treatment/>.

Gonorrhea, Herpes Simplex Virus, and Syphilis

See Chapter 2 for GC and Chapter 9 for HSV and syphilis management.

Acute Proctitis

(without intracellular Gram-negative diplococci (ICGND))

- Ceftriaxone 250 mg IM, followed by doxycycline 100 mg bid for 7 days

Treatment for other diagnoses:

- Chlamydial infection (LGV strains)
 - Doxycycline 100 mg bid for 3 weeks
- Chlamydial infection (non-LGV strains)
 - Doxycycline 100 mg bid for 7 to 10 days
- Herpes proctitis or proctocolitis
 - Any of the following:
 - Acyclovir 400 mg orally three times a day for 7-10 days,
 - Acyclovir 200 mg orally five times a day for 7-10 days,
 - Famciclovir 250 mg orally three times a day for 7-10 days,
 - Valacyclovir 1.0 g orally twice a day for 7-10 days.
- Giardiasis
 - Metronidazole 500 mg tid for 7 days
- Amebiasis
 - Either no treatment (if asymptomatic cyst passer) or metronidazole 750 mg tid for 10 days, diiodohydroxyquine 650 mg tid for 3 weeks
- Shigellosis
 - Ciprofloxacin 500 mg bid for 7 days
- Campylobacter enteritis
 - Ciprofloxacin 500 mg bid for 7 days

FOLLOW-UP

In general, most diagnoses require at least one follow-up examination and collection of appropriate specimen(s) for test-of-cure 7 to 14 days after completion of treatment.

MANAGEMENT OF SEX PARTNERS

See appropriate chapters in this book on syphilis, gonorrhea, chlamydial infection, herpes, and HPV.

Test all sex partners from the preceding 4 weeks for the identified pathogen(s); epidemiologic treatment is usually not warranted.

Confirmed cases of syphilis, gonorrhea, or other reportable diseases should be reported to the state or local health departments (To locate health department STD programs, visit <http://www.ncsddc.org/programsites.htm>).