

## Etiology of Clinical Proctitis among Men Who Have Sex with Men

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**In this retrospective review of cases of clinical proctitis, we identified the frequency of common sexually transmitted diseases (STDs) among men who have sex with men on the basis of reports from the municipal STD clinic in San Francisco. Of note, gonorrhea and chlamydia were the most common STDs, followed by herpes and syphilis. Current STD treatment guidelines recommend empiric treatment for gonorrhea and chlamydia, but treatment for herpes should also be considered. The implications for human immunodeficiency virus (HIV) transmission are also discussed.**

Proctitis, or inflammation of the rectum, is a condition that is not uncommon among men who have sex with men (MSM), and, in HIV-negative men, greatly increases the risk of acquiring HIV infection [1, 2]. With the recent increases in bacterial sexually transmitted diseases (STDs) among MSM in the United States and Europe, there has been a concomitant increase in the number of cases of clinical proctitis [3]. At the San Francisco municipal STD clinic, the number of cases of proctitis has increased by 26%, from 159, in 1997, to 200, in 2001. On average, ~15 cases are diagnosed each month among ~600 MSM seen at the clinic [4].

Common causes of proctitis include infection with *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, herpes simplex virus (HSV), and *Treponema pallidum*. The recent availability of more-sensitive diagnostic assays, such as nucleic acid amplification tests for *C. trachomatis* and *N. gonorrhoeae*, may alter our current understanding of the distribution of etiologic agents in clinical proctitis. We sought to describe the distribution of possible etiologic agents among MSM with clinical proctitis seen at the municipal STD clinic in San Francisco.

**Methods.** This study was conducted in accordance with Department of Health and Human Services guidelines. As part of our routine evaluation of clinical STD services, we reviewed medical records of all men presenting with rectal symptoms of pain, itching, tenesmus, rectal bleeding, or discharge who underwent clinical evaluation and diagnostic testing via anoscopy for rectal chlamydia, gonorrhea, herpes, and syphilis between January 2001 and December 2002. *Chlamydia trachomatis* and *N. gonorrhoeae* rectal infections were diagnosed using strand displacement amplification (BD Probetec SDA). This assay is highly sensitive and specific and has been used for routine clinical diagnosis of rectal infections in our clinic since the completion of the required laboratory study to establish test performance characteristics per the Clinical Laboratory Improvement Amendments of 1988 [5]. In our evaluation study, the specificity of this assay was 100%, as determined by confirmation with a second amplification assay; however, cross-reactions with *Neisseria cinerea* and other *Neisseria* species have been reported by the manufacturer. Herpes simplex virus infections were determined by routine culture methods. Syphilis infection was determined with the Venereal Disease Research Laboratory (VDRL) test with *T. pallidum* particle agglutination confirmation. Patients with a confirmed reactive VDRL test and no other identified etiology were considered to be positive for syphilis.

This analysis was performed as an evaluation of routine clinical STD services in a public health setting by public health staff and thus does not qualify as research requiring institutional review according to federal guidelines.

**Results.** There were 101 men who had clinical proctitis and underwent diagnostic testing for all 4 pathogens. Of these 101 patients, 83 had a clinical Gram stain of a rectal specimen that was positive for  $\geq 5$  WBCs per high power field, 11 patients had results that were not available, and 7 patients had results that were negative. Selected characteristics of these patients are shown in table 1.

Fifty-five (55%) of 101 patients had an infection that was identified: 30 (30%) had gonorrhea, 19 (19%) had chlamydia, 16 (16%) had herpes, and 2 (2%) had infectious syphilis (figure 1). Most (82%) of the infected patients had only 1 infection, but 9 patients had 2 infections (7 patients had gonorrhea and chlamydia; 2 had gonorrhea and herpes), and 1 patient had all 4 types of infection. Forty-six (46%) of the patients had no infection identified. The frequency of infections did not differ between those who had Gram stains positive for inflammation and those who did not.

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**Table 1. Selected demographic characteristics and laboratory findings of 101 men with proctitis, San Francisco City Clinic, 2001-2002.**

Variable	Value
Age, median years (range)	35 (18-63)
Race/ethnicity, % of patients	
White	66
Hispanic	15
African-American	8
Asian/other	11
HIV-infected, % of patients	34
Rectal inflammation <sup>a</sup> , % of patients	92

<sup>a</sup> Defined as a Gram stain of a rectal specimen revealing  $\geq 5$  WBC per high-power field. Data are for 90 patients with available results.

**Discussion.** The appropriate management of proctitis in MSM requires a complete microbiological evaluation for  $\geq 4$  sexually transmitted pathogens: *N. gonorrhoeae*, *C. trachomatis*, herpes simplex virus, and *T. pallidum*. Our data provide additional evidence as to the expected frequencies of these infections. Because the epidemiology of STDs is local, and because San Francisco, in particular, is experiencing a significant syphilis epidemic, our findings may not be generalizable to other geographic areas or to other populations. As the epidemics of syphilis continue among MSM in urban areas in the United States and Europe, it will be important to observe the contribution of syphilis infection to proctitis.

The advent of molecular amplification testing in the diagnosis of STDs continues to advance our understanding of clinical syndromes. In this case series, which used DNA amplification to test for gonorrhea and chlamydia in the rectum, a high proportion of cases of proctitis were caused by gonorrhea and chlamydia. Although we used nonmolecular techniques to test for herpes, it was also common. These findings support the recent Centers for Disease Control and Prevention recommendations regarding empiric treatment for both gonococcal and chlamydial infections in proctitis [6], and they suggest that empiric treatment for anorectal herpes may also be warranted. Although infectious syphilis was not uncommon in this case series, empiric syphilis treatment does not appear to be necessary.

Appropriate treatment of clinical proctitis is imperative to reduce the associated inflammation, duration of infection, and subsequent disease transmission. Recent sexual partners of patients with proctitis should be treated with the same treatment regimen as the case patient unless specific infections have been excluded. The treatment of HIV-infected men who have bacterial infections located at mucosal surfaces can reduce the amount of HIV shedding [7]. Reduction in the amount of HIV at mucosal surfaces may lead to reduced HIV transmission. In

addition, mucosal inflammation is associated with an increased risk of HIV acquisition, so early treatment may also reduce an individual's susceptibility to HIV infection.

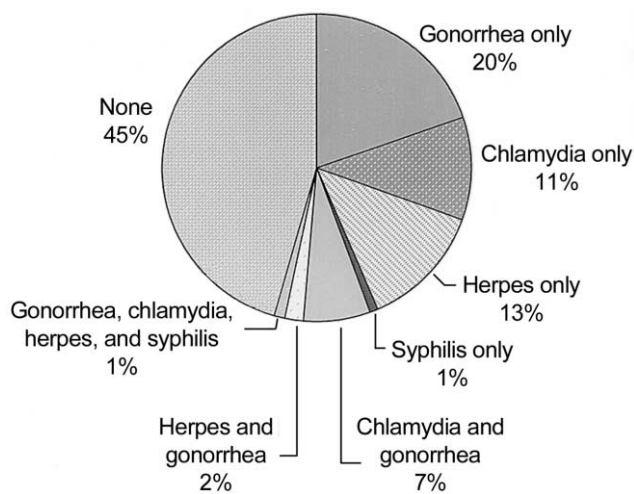
The evaluation and use of molecular amplification tests to screen for STDs at anatomic sites for which these tests have not been cleared by the US Food and Drug Administration are important aspects of STD prevention, control, and clinical care. Medical providers should work with their local laboratory directors to conduct the required evaluation studies to make these tests available for clinical use. Our study provides relevant clinical information for the appropriate management of proctitis.

Of note, two-thirds of the MSM in our study population were HIV-negative. Because proctitis potentially increases the risk of HIV acquisition by up to 9-fold [1-2], proctitis in an HIV-negative man should be considered a sentinel event, necessitating education, risk-reduction counseling, HIV testing, and follow-up HIV testing at 3 months after diagnosis. Mental health and substance use, important determinants of HIV-risk behavior, should also be evaluated.

Finally, evidence-based STD care can lead to more-effective STD treatment and can perhaps lead to improved HIV prevention. Providers of HIV care and those who provide care for sexually active MSM should be familiar with STD treatment recommendations [8-9]. Expertise in STD clinical management should be a recognized criterion for excellence in medical care for HIV specialists and for those who provide care to sexually active MSM.

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**Figure 1.** Frequency of diagnosis of sexually transmitted diseases in male patients with proctitis ( $n = 101$ ), San Francisco City Clinic, 2001-2002. Data are % of patients.

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