

CLINICAL VIGNETTE

Two's Company: An Unusual Case of Acute Proctitis

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A 29-year-old male with a history of ulcerative colitis presented to urgent care with rectal pain and discharge. Four days prior, he developed mucoid rectal drainage, tenesmus, severe rectal pain, and bilateral tender inguinal lymphadenopathy. On presentation he denied fevers, abdominal pain, or penile discharge, but endorsed dysuria and one episode of hematuria. He noted a small cut on his penis which he stated was from accidental zipper trauma a few days prior but otherwise no genital lesions.

The patient's past medical history was significant for ulcerative colitis limited to the rectum, anogenital human papillomavirus infection, and several episodes of gonorrhea, the last episode one year prior to presentation. Sexually transmitted infection (STI) screening was negative on his most recent quarterly screen. His ulcerative colitis was diagnosed six months prior when he presented with mucoid hematochezia, diarrhea, and abdominal cramping. He was a former smoker and denied recreational drug use. He engaged in receptive anal intercourse with multiple sexual partners, most recently the week prior. At the time of presentation, he was taking tenofovir-disoproxil/emtricitabine for pre-exposure human immunodeficiency (HIV) prophylaxis, azathioprine, mercaptopurine and infliximab. His last infliximab infusion was two weeks prior, at which time his erythrocyte sedimentation rate (ESR) was mildly elevated, with a normal C-reactive protein (CRP).

On examination, he appeared uncomfortable with splinting to the right. He was tachycardic with clear lungs and a non-tender, non-distended abdomen. There was a 1-millimeter tender penile ulcer and bilateral, painful inguinal lymphadenopathy. Anoscopy revealed erythematous rectal mucosa with fissuring, exquisite tenderness, and frank pus. The remainder of his examination was normal. Swabs were taken from the penile ulcer for herpes simplex virus (HSV) polymerase chain reaction (PCR) and from the rectum for gonorrhea, chlamydia, and HSV PCR. Of note, this presentation was prior to the Mpox outbreak of 2022.

He was initially treated empirically for gonorrhea, chlamydia, and sepsis in urgent care with intramuscular ceftriaxone and intravenous fluids. However, because of persistent tachycardia, his marked discomfort, and concern for a perirectal abscess given his history of ulcerative colitis, he was sent to the emergency department and admitted to the hospital. He underwent computed tomography (CT) of the abdomen and pelvis with contrast, which ruled out perirectal abscess. By morning, he had marked clinical improvement. However, his

rectal pain persisted. Oral doxycycline was started out of concern for lymphogranuloma venereum (LGV) but later discontinued when his *Neisseria gonorrhoeae* PCR returned positive from the rectal swab taken in urgent care and the *Chlamydia trachomatis* PCR resulted negative. Fourth generation HIV testing was negative. Gastroenterology was consulted given his history of ulcerative colitis and concern for a concomitant flare, but felt his symptoms were attributable to gonorrhea alone.

The patient was stabilized and was discharged with close outpatient primary care and gastrointestinal follow-up. Results from HSV PCR obtained in urgent care were pending at the time of discharge. The evening after discharge the patient noted worsening rectal pain and an outbreak of small ulcerations around the anus. He paged the hospital physician who empirically treated him for rectal herpes simplex with valacyclovir. The following day his rectal and penile PCR swabs both returned positive for herpes simplex virus type 1 (HSV-1).

Discussion

This case of infectious proctitis due to gonorrhea and herpes simplex virus in a male who has sex with men, complicated by the patient's preexisting history of autoimmune ulcerative proctitis.

Acute proctitis, or inflammation of the rectum, is often infectious in origin but can less commonly be due to autoimmune conditions, such as ulcerative colitis. Infectious proctitis presents with the acute onset of rectal pain, bleeding, purulent discharge, and bowel urgency. Patients with infectious proctitis typically have a history of receptive anal intercourse and may have a prior history of sexually transmitted infections.

In patients presenting with infectious proctitis, the external exam is typically normal with diffuse tenderness noted on digital rectal exam and an inflamed or friable mucosa on anoscopic examination. *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, herpes simplex virus, and *Treponema pallidum* (syphilis) have historically been the most common etiologies of acute infectious proctitis. Following the global outbreak of 2022, Mpox should now be considered in patients presenting with acute proctitis. The presence of ulcers on anoscopy, among other distinguishing features on history and exam, can suggest diagnoses such as herpes simplex, syphilis, or lymphogranuloma venereum due to *Chlamydia trachomatis*.^{1,2} A high degree

of clinical suspicion for HSV should be present in the setting of acute proctitis associated with typical perianal, rectal, or genital ulcers, together with inguinal lymphadenopathy.³ Mpox should be considered if the lesions are more pustular or show central umbilication. Determination of the causative organism should be made by direct detection with anal swabs for *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, HSV, and Mpox virus. Simultaneously, serology should be obtained to rule out syphilis with darkfield microscopy performed on specimens from any lesions. Imaging, unlike in our case, is usually not necessary for uncomplicated cases.¹

In this patient, the initially detected infection was *Neisseria gonorrhoea*. Anorectal gonococcal infections are more common in men who have sex with men (MSM) and relatively uncommon in men who have sex with only women (MSW). A review of the 2006 literature rereported the prevalence of rectal gonorrhoea ranged from 0.2-24% in MSM, compared to 0-5.7% for MSW.⁴ However, *Neisseria gonorrhoea* can still be transmitted to the anal canal through genital infection in females even in the absence of receptive anal intercourse, and thus women presenting with genital gonorrhoea or other STIs should be screened for rectal symptoms. Finally, despite our patient's presentation of acute symptomatic infectious proctitis, most cases of anorectal gonorrhoea are asymptomatic and can be the only site of infection in up to 40% of MSM.²

The first-line treatment for anorectal gonococcal infection is ceftriaxone as a single intramuscular dose of 500 milligrams (mg) for individuals <150 kg or 1 grams (g) for individuals ≥150 kg.¹ In patients with severe proctitis, empiric treatment with doxycycline for LGV is also recommended while microbiology results are pending, as in this patient.⁵ Additional management includes supportive care of symptoms.

The second infection detected in this patient was a primary infection with HSV-1. The first clinical episode of HSV (primary infection) can be severe, causing systemic symptoms such as fever, headache, malaise, and tender inguinal lymphadenopathy, while recurrent outbreaks are typically less severe. The average incubation of both HSV-1 and 2 are four days and according to the Centers for Disease Control (CDC), 11.9% of persons aged 14–49 years are estimated to be infected with HSV-2 (generally thought of as the causative agent for anogenital herpes) in the United States.⁵ In Australia, HIV-seronegative MSM had an incidence of HSV-2 infections of 1.5 cases per 100 person-years.⁶ Increasingly, however, HSV-1 has been recognized as a causative agent for anogenital herpes infections among MSM, so the prevalence and incidence of anorectal and genital herpetic infections may be not fully understood at this time.

The recommended treatment for primary anogenital herpetic infections is either acyclovir, famciclovir, or valacyclovir.⁵ Initial treatment for immunocompromised patients or patients with severe disease may require intravenous acyclovir with bridging to oral therapy until all lesions have resolved.⁷ For ease of administration and because the diagnosis wasn't made until

he was discharged from the hospital, our patient was treated with valacyclovir 1 gram orally twice per day for 10 days which was sufficient to resolve his symptoms.

In summary, our patient had an acute presentation of anorectal *Neisseria gonorrhoeae* and both penile and anal herpes simplex virus type 1. The gonococcal infection likely caused the mucopurulent anorectal discharge, whereas the HSV caused the penile ulcer and later the rectal ulcers and tender inguinal lymphadenopathy. The zipper injury reported by the patient was a red herring. This case is a reminder that more than one infectious etiology can be present as the cause of acute proctitis. Additionally, the patient's preexisting ulcerative colitis presented a diagnostic challenge. His use of immunosuppressive medications may have contributed to the severity of his symptoms and perhaps susceptibility to infection, while his underlying autoimmune proctitis broadened the differential beyond infectious proctitis. Thus, this case illustrates the importance of careful social and sexual histories in all patients presenting with proctitis.

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