

## Returning traveler with painful penile mass

Our patient thought he'd practiced "safe sex" while traveling in Vietnam. But a week after his return, he sought care for a tender penile lump and painful urination.

**WORRIED THAT HE MIGHT HAVE CONTRACTED CHLAMYDIA**, a 27-year-old man visited our clinic for treatment. About 5 days earlier, he'd begun experiencing pain and a burning feeling when he urinated. Three days earlier, a painful lump near the head of his penis developed; the lump was growing.

The patient, who was otherwise healthy, had recently returned from a trip to Vietnam during which he reported having had sex with one female partner. He said, "I thought I was safe. I used a condom."

On examination, he had a purulent urethral discharge and there was a fluctuant, yellowish-white, tender swelling on the left side of the frenulum (**FIGURE**). There were no ulcers. There was, however, a single 2-cm lymph node in the right inguinal area that was mobile, nontender, nonfluctuant, and of normal consistency.

- WHAT IS YOUR DIAGNOSIS?
- HOW WOULD YOU TREAT THIS PATIENT?

**FIGURE**

**Swelling with purulent discharge**



PHOTO COURTESY OF ANDREW SCHECHTMAN, MD

In addition to the fluctuant, yellowish white, tender swelling on the left side of the frenulum, the patient had purulent urethral discharge and a single, 2-cm lymph node in the right inguinal area.

**Jesse Rokicki Parashar, MD; Andrew Schechtman, MD**  
San Jose-O'Connor  
Hospital Family Medicine  
Residency, Calif

[aschecht@stanford.edu](mailto:aschecht@stanford.edu)

**DEPARTMENT EDITOR**

**Richard P. Usatine, MD**  
University of Texas Health  
Science Center at  
San Antonio

*The authors reported no potential conflict of interest relevant to this article.*

➤ **Nucleic acid amplification testing has the advantage of being approved for use with urine specimens from men and women, as well as with endocervical or urethral samples.**

## Diagnosis: Tysonitis

The clinical history was consistent with a diagnosis of gonococcal urethritis complicated by a periurethral gland abscess. The location of the swelling was most consistent with an abscess in the Tyson's gland (also known as tysonitis). The Tyson's (or preputial) glands of the penis are sebaceous-type glands on either side of the frenulum at the balanopreputial sulcus.<sup>1</sup> In women, an abscess of the periurethral Skene's gland is an analogous gonorrheal complication.

Case reports of gonorrheal infection of Tyson's gland have documented infection with and without symptoms of urethritis.<sup>2-4</sup> Diagnosis in this case was confirmed by sending the discharge for nucleic acid amplification testing (NAAT), which was positive for *Neisseria gonorrhoeae* and negative for *Chlamydia trachomatis*.

■ **Other diagnostic possibilities.** The differential diagnosis of acute swelling on the penile shaft includes syphilis, chancroid, lymphogranuloma venereum, herpes simplex virus, Behçet's syndrome, a drug reaction, erythema multiforme, Crohn's disease, lichen planus, amebiasis, scabies, trauma, and cancer.<sup>5</sup>

## How this patient's attempt at "safe sex" failed

Oropharyngeal gonococcal infection was the route of transmission implicated in this patient's infection. When specifically asked about his sexual encounter, our patient admitted that while he was diligent about using a condom for intercourse, he did not use a condom when he received oral sex.

The prevalence of pharyngeal involvement is estimated to be 10% to 20% among women and MSM (men who have sex with men) who have genital gonorrheal infection.<sup>6</sup> The risk of contracting *N gonorrhoeae* when receiving oral sex from an infected partner is unknown.

## A common disease, a not-so-common complication

Genital infection by *N gonorrhoeae* remains the second most common notifiable disease in the United States, with 301,174 cases reported in 2009.<sup>7</sup> Effective antimicrobial treat-

ment has reduced the occurrence of local complications of gonococcal infection. Nevertheless, complications of gonococcal urethritis like the ones that follow do occur.

■ **Acute epididymitis** is the most common complication of urethral gonorrhea. It is characterized by a swollen and inflamed scrotum, localized epididymal pain, fever, and pyuria.<sup>8</sup>

■ **Penile edema** ("bull-headed clap") is another common complication.<sup>8</sup> It may be limited to the meatus or extend to the distal penile shaft and prepuce and may occur in the absence of other inflammatory signs.

■ **Urethral stricture**, once thought to be a common complication, is actually relatively rare, occurring in just 0.5% of cases.<sup>6</sup> Urethral strictures attributed to gonorrheal urethritis during the pre-antibiotic era may have actually resulted from the caustic treatments administered during that time.

■ **Acute prostatitis** with sudden onset of chills, fever, malaise, and warmth and swelling of the prostate can also develop, although it is more commonly caused by gram-negative rods, such as *Escherichia coli* or *Proteus mirabilis*.<sup>8</sup>

■ **Chronic prostatitis**, usually caused by recurrent urinary tract infections, has also been documented as a complication of gonorrheal infection.<sup>9</sup>

■ **Infection of the Cowper's, or bulbourethral glands**, can occur, leading to perineal swelling.<sup>10</sup>

■ **Periurethral abscess** results when an infected Littre's or Tyson's gland ruptures and the infection extends into the deeper tissues.<sup>11</sup>

■ **Seminal vesiculitis** has previously been described as an uncommon complication of gonorrheal infection. However, a recent small study showed ultrasonographic evidence of vesiculitis in 46% of patients with urethritis due to gonorrhea or chlamydia.<sup>12</sup>

■ **Penile sclerosing lymphangitis** presents as an acute, firm, cordlike lesion of the coronal sulcus. A quarter of reported cases have been linked to sexually transmitted infections, including gonorrhea.<sup>13</sup>

## NAAT is key to diagnosis

Infection with genitourinary *N gonorrhoeae*

can be detected in various ways, including gram staining of a male urethral specimen, culture, nucleic acid hybridization, and NAAT. NAAT, which we used with our patient, has the advantage of being approved for use with urine specimens from men and women, as well as with endocervical or urethral samples.

Diagnosis of nongenital infection (ie, pharynx, rectum) typically requires culture. Other diagnostic methods are not FDA-approved for use with specimens from nongenital sites and may yield false-positive results due to cross-reactivity with organisms other than *N gonorrhoeae*.<sup>14</sup> Patients tested for gonorrhea should also be tested for other sexually transmitted infections, including chlamydia, syphilis, and human immunodeficiency virus.

### Treat patients with ceftriaxone

Treatment for tysonitis is similar to treatment for gonococcal urethritis and centers on the use of appropriate antibiotics.<sup>15</sup> Quinolone-

resistant *N gonorrhoeae* is increasingly common; it is estimated that up to 40% of strains in Asia are now quinolone resistant.<sup>16</sup> Because of this, the CDC recommends treatment with ceftriaxone and azithromycin.<sup>17</sup> As with urethritis, presumptive treatment for chlamydia is warranted. For tysonitis, incision and drainage may also be necessary.<sup>18</sup>

### A good outcome for our patient

This patient was treated with ceftriaxone 250 mg intramuscularly and azithromycin 1 g as a single oral dose. The abscess was incised and drained under local anesthesia, with 2 cc of pus obtained.

Five days after treatment, the patient reported feeling much better. He was told to call the clinic if he didn't have complete resolution in 2 weeks. He did not report any further problems.

JFP

#### CORRESPONDENCE

Andrew Schechtman, MD, San Jose-O'Connor Hospital Family Medicine Residency, 455 O'Connor Drive, #210, San Jose, CA 95128; aschecht@stanford.edu

Patients with tysonitis may require incision and drainage in addition to antibiotics.

#### References

- Batistatou A, Panelos J, Zioga A, et al. Ectopic modified sebaceous glands in human penis. *Int J Surg Pathol*. 2006;14:355-356.
- Burgess JA. Gonococcal tysonitis without urethritis after prophylactic post-coital urination. *Br J Vener Dis*. 1971;47:40-41.
- Bavidge, KJ. Letter: gonococcal infection of the penis. *Br J Vener Dis*. 1976;52:66.
- Abdul Gaffoor PM. Gonococcal tysonitis. *Postgrad Med J*. 1986;62:869-870.
- Frenkl T, Potts J. Sexually transmitted diseases. In: Wein AJ, Kavoussi LR, Novick AC, et al, eds. *Campbell-Walsh Urology*. 9th ed. Philadelphia, Pa: Saunders; 2007:371-385.
- Nelson AL. Gonorrheal infections. In: Nelson AL, Woodward JA, eds. *Sexually Transmitted Diseases: A Practical Guide for Primary Care*. Totowa, NJ: Humana Press; 2007:153-182.
- Centers for Disease Control and Prevention. Sexually transmitted disease surveillance 2009. Available at: [www.cdc.gov/std/stats09/surv2009-Complete.pdf](http://www.cdc.gov/std/stats09/surv2009-Complete.pdf). Accessed March 25, 2011.
- Marrazzo JM, Handsfield HH, Sparling PF. *Neisseria gonorrhoeae*. In: Mandell GL, Bennett JE, Dolin R, eds. *Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases*. 7th ed. Philadelphia, Pa: Churchill Livingstone; 2009:2753-2770.
- Adler MW. ABC of sexually transmitted diseases: complications of common genital infections and infections in other sites. *Br Med J*. 1983;287:1709-1712.
- Subramanian S. Gonococcal urethritis with bilateral tysonitis and periurethral abscess. *Sex Transm Dis*. 1981;8:77-78.
- Komolafe AJ, Cornford PA, Fordham MV, et al. Periurethral abscess complicating male gonococcal urethritis treated by surgical incision and drainage. *Int J STD AIDS*. 2002;13:857-858.
- Furuya R, Takahashi S, Furuya S, et al. Is urethritis accompanied by seminal vesiculitis? *Int J Urol*. 2009;16:628-631.
- Rosen T, Hwang H. Sclerosing lymphangitis of the penis. *J Am Acad Dermatol*. 2003;49:916-918.
- Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines 2006. Diseases characterized by urethritis and cervicitis. Available at: <http://www.cdc.gov/STD/treatment/2006/urethritis-and-cervicitis.htm#uc6>. Accessed January 26, 2010.
- el-Benhawi MO, el-Tonsy MH. Gonococcal urethritis with bilateral tysonitis. *Cutis*. 1988;41:425-426.
- Centers for Disease Control and Prevention. Increases in fluoroquinolone-resistant *Neisseria gonorrhoeae*—Hawaii and California, 2001. *MMWR Morb Mortal Wkly Rep*. 2002;51:1041-1044.
- Workowski KA, Berman S, Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines, 2010. *MMWR Recomm Rep*. 2010;59(RR-12):1-110.
- Fiumara NJ. Gonococcal tysonitis. *Br J Vener Dis*. 1977;53:145.



The recruitment hub created exclusively for  
physicians and advanced practice clinicians.

MedOpportunities.com