

Three Co-Existing Sexually Transmitted Diseases in a Heterosexual Male Youth: A Case Report

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ABSTRACT

Most sexually transmitted diseases (STDs) are asymptomatic, leading to widespread underdiagnoses estimated at 50% or higher. The presence of one STD significantly indicates an individual's sexual health risk since an STD contributes to the transmission and acquisition of other STDs, including human immunodeficiency virus (HIV) infection. Multiple co-existing STDs, thus, further increase the susceptibility of acquiring and transmitting HIV by twofold or more. Therefore, the comprehensive STD prevention strategies play a major role in reducing the transmission of HIV infection.

We report an interesting case of a heterosexual male youth who presented at dermatology clinic with three concurrent sexually transmitted diseases: gonococcal urethritis, genital wart, and late latent syphilis. The case demonstrated significant issues for appropriate approaches and management of multiple co-existing STDs. Also, it reinforced the necessity for STD counselling for the patient, his partners, and family.

Keywords: Multiple co-existing sexually transmitted diseases, concurrent sexually transmitted diseases, multiple co-existing STDs, concurrent STDs

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CASE REPORT

A 16 year-old heterosexual male student presented to the STD clinic, Siriraj Hospital, with one-week history of dysuria and purulent discharge from urethral meatus. He had taken oral tetracycline antibiotic after meals three times a day since the symptoms first occurred. Two days prior to this visit, immediately after having unprotected sexual intercourse with his partner, he developed a painful swollen glans penis in which his prepuce could not be retracted. He did not notice any rash or skin lesions in his perineum region. Since he still had had the symptom of purulent discharge per meatus, he decided to come to the hospital.

He had allergic rhinitis and been regularly treated at the Siriraj Allergy Clinic and denied any medical conditions or drug allergies. He had no history of blood transfusion and never used any recreational drugs but admitted to social consump-

tion of alcoholic beverages. Furthermore, he had got artificial tattooing on his body by one of his friends.

He had his first sexual intercourse at age 15 years old without condom. He admitted to frequent sexual partner changes, and had a total of 9 sexual partners until now. His sexual partners were only females and they had only vaginal intercourse and condom had been used on some occasions. He denied any sexually transmitted infection, penile lesions, discharge, or dysuria prior to this episode. There was no history of circumcision or foreign body or solution injection into his penis. His present sexual partner reported a history of genital wart.

Physical examination revealed a normosthenic built healthy young man. His vital signs were within normal limits with no fever. His appearance including ear, nose and throat was normal with no cervical lymphadenopathy. His chest, cardiovascular system, and abdomen were unremarkable. No skin rash was seen on his trunk and extremities. No lesions were seen on the palms or soles. No alopecia was seen. No mucosal lesion was seen. He had purulent discharge from urethral meatus with paraphimosis between shaft and glans

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penis. There were multiple discrete verrucous brownish papules on the shaft of his penis. His scrotum was unremarkable. Genital wart was diagnosed by a qualified dermatologist. Two left inguinal lymph nodes were found with diameters of 1.5 cm and 2 cm. Both were soft, freely mobile and very tender.

Laboratory test showed that the Gram stain of urethral discharge demonstrated more than 10 PMNs per oil field and Gram negative diplococci intracellular organisms, suggestive of *Neisseria gonorrhoeae*. A blood sample had been taken and screened for STDs including anti-HIV. The anti-HIV, HBsAg and anti-HCV were all negative. The Venereal Disease Research Laboratory (VDRL; Atlanta, GA) test was reactive (titer, 1:64), and the *Treponema pallidum* hemagglutination (TPHA) test was also reactive (titer, > 1:80), suggestive of latent syphilis of unknown duration.

The patient's paraphimosis was treated by manual retraction. Oral serratiopeptidase (2 tablets after meal, three times a day) was also given to help reduce the swelling. For gonococcal urethritis of which bilateral inguinal lymphadenopathies were also found, the patient was treated with Ceftriaxone 250 mg intramuscularly single dose and for syphilis treatment, oral doxycycline 200 mg/day (100 mg after meal, twice daily) for 14 days. Benzathine penicillin, as a first-line drug for syphilis, was not administered to this patient since he could not obtain the consent form from his parents. Podophylline was applied on every single verrucous papule and imiquimod (Aldara[®]) was prescribed for home treatment of genital wart to apply one time at night on Monday, Wednesday and Friday. STD prevention and counselling was given to the patient, his partner and his father. The patient responded well to the treatment regimen and the clinical outcome improved afterwards.

DISCUSSION

The presence of one sexually transmitted disease (STD) significantly indicates an individual's sexual health risk since an STD increases the likelihood of the transmission and acquisition of other STDs, including HIV.¹⁻³ The prevalence of patients having more than one concurrent STDs has been reported from 9-37%.³⁻⁴ Syphilis is the most common infection associated with multiple STDs accounted for 48% followed by 45% in HIV.³ The rates of syphilis-HIV and syphilis-genital wart co-infections are 43% and 40%

respectively.³ There has been reported rates of gonorrhea co-infection with chlamydia ranging from 0-60%,^{3,5} and gonorrhea-HIV co-infection about 20%.³ Multiple co-existing STDs are common in patients attending STD clinics, and these further threaten HIV infection and transmission.^{1,3} This epidemiologic information emphasizes the importance of screening and health education programs in order to provide a practical guideline for STD management policy.

STDs transmission is uniquely associated with human sexual behaviors, especially in adolescents and young adults (25 years and younger) which show the highest STD rates compared to other age groups.³⁻⁵ High risk sexual behaviors such as no condom use and multiple sexual partners change underscore the alarm of multiple co-existing STDs, including HIV infections, but many people often underestimate these risk factors.^{1,5}

In general, all patients with one STD should not only be given the proper intervention and treatment on-time, but also informed about the diseases in terms of natural history, course, associated risk, prevention, treatment regimens, follow-up schedule, and the necessity to screen other STDs simultaneously.^{1,4-5} The comprehensive STD approach and prevention strategies, are a major role in promoting patients' understanding in sexual health education and effectively reducing the transmission of HIV and other STDs infection.

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