Sexual Health Newsletter

What STI might be masquerading as a common appearing rash?

DON'T ASK? THEY WON'T TELL...

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HISTORY: A 54-year-old Asian male presents to the dermatology clinic with a chief complaint of a "dry, itchy scalp." He describes the condition as "going on for years" but, he reports the recent

ABOUTUS

The NYC STD Prevention
Training Center (PTC), located
at Columbia University
Medical Center, is one of eight
PTCs funded by the CDC to
improve the capacity of clinical
providers to manage patients
with sexually transmitted
infections. This bi-monthly
newsletter reviews case
presentations in clinical
settings and is one of our
educational tools.

For more information about the NYC PTC, visit: www.nycptc.org. To sign up for our e-mailing list and to send us comments or questions, please contact us at nycptc@columbia.edu. We welcome your feedback!



development of thickened scaly skin on his elbows and knees. He works as an electrical engineer and denies recent travel history. His exam was notable for erythematous patches in the bilateral nasolabial folds, as well as lichenified plaques on both knees and elbows. The patient was diagnosed with psoriasis, started on topical steroid cream and advised to return to the clinic for follow-up in three months.



Two months after his initial

diagnosis, the patient returned to the dermatology clinic complaining of a diffuse, non-pruritic, non-painful, rash on his body for two weeks. At that time his exam was notable for erythematous macules and patches on his chest, axilla, abdomen, and upper and lower extremities. (Images A, B and C) The dermatologist performed a punch biopsy and ordered lab work. Subsequently, his RPR was noted to be positive (1:128), with a



Image B

positive FTA.
Dermatopathology
revealed the presence
of plasma cells in a
perivascular infiltrate
with plasmacytes
(Image D) and a
spirochete
immunostatin identified
rare spirochetes (Image
E) within the dermis.



Image C

PATIENT OUTCOME:

The patient was referred to the Project STAY clinic at the Farrell **Community Health** Center (one of the **Ambulatory Care** Network Sites for NYP). Project STAY is a component of the Comprehensive Health Program (CHP), which provides sexual health services for adolescents and adults. A comprehensive sexual history was taken which revealed that the patient had sex with male partners, with an average of 4 unique partners per month

with inconsistent condom use. Despite being insured and having previous health care visits, he had never been tested for HIV or other sexually transmitted

infections. He was subsequently screened for sexually transmitted infections, and assessed for initiating pre-exposure prophylaxis (PrEP). Screening tests for HIV, gonorrhea and chlamydia were all negative. Assessment for hepatitis showed patient had not been exposed to hepatitis C; and, had protective antibodies to hepatitis B. The patient was treated with 2.4 million units of IM bicillin, and also started on PrEP (Truvada 1 pill daily). A repeat RPR 6 weeks after treatment resulted with a titer of 1:16, his rash resolved, and he remains on PrEP.

DISCUSSION: Syphilis has been called "the great masquerader" due to its varied presentation. In this case, one key was the physical exam with a widespread rash with acral involvement. While dermatology correctly ordered an RPR, an earlier diagnosis could have been made had a sexual history been performed. In 2015 there were almost 24,000 cases of primary and secondary syphilis, a 19% increase from 2014.¹ Rates of syphilis are ten times higher in men, and men who have sex with men (MSM) represent 60% of cases).² 68% of cases are reported outside of STI clinics so both primary care providers and specialists play important roles in identification and treatment.³ However, these statistics may represent only the "tip of the iceberg" as syphilis is often asymptomatic. Studies suggest that only 10-31%

of providers take a sexual history on the patients.⁴ Failure to obtain a sexual history may result in missed opportunities to obtain appropriate screening tests, and

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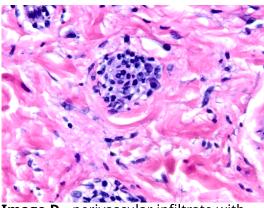


Image D - perivascular infiltrate with plasma cell

referral for prevention services, such as pre-exposure prophylaxis (PrEP).⁵ Clearly, as this case shows, if patients are not queried, they may not volunteer sensitive information that may have dramatic implications for delivery of health services.

The United States Preventive Services Task Force recommends routine screening for syphilis for asymptomatic, non-pregnant adults and adolescents, who are at increased risk of infection.⁶ Men who have sex with men and persons living with HIV are at highest

Syphilis has a long incubation period and can take up to 3 months from inoculation to the appearance of primary lesions (chancre). While chancres are classically described on the penis, they can be located anywhere direct contact with another infected person's lesion could occur, including from kissing.^{7–9} Primary lesions will usually spontaneously resolve in 3-6

weeks. Secondary syphilis is the most commonly recognized clinical syndrome. Cutaneous manifestations can be extremely variable and frequently mimic other dermatologic syndromes. 10 The classic manifestation is

painless lesions on the palms and soles, however the most common presentation are generalized, non-pruritic, papulosquamous lesions that can involve the trunk and extremities.

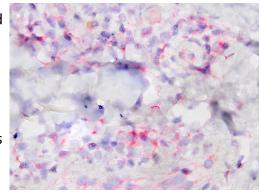


Image E - spirochete stain

risk of infection while additional risk factors such as a history of incarceration and commercial sex work, should be considered.⁶

Untreated syphilis enters a latent stage and can remain dormant for decades before presenting with late clinical manifestations including neurosyphilis, cardiovascular syphilis, or skin and bone growths (gummas).

Serological testing is the most common method for screening and follow-up. Non-treponemal tests include the rapid plasma regain (RPR), and Venereal disease research laboratory (VDRL) tests which detect both IgG and IgM antibodies.⁶ Non-treponemal tests can provide quantitative information on antibody concentrations, making them helpful to assess response to therapy.

Treponemal tests detect antibodies to treponemal antigens.⁶ These include the fluorescent treponemal antibody adsorbed (FTA-ABS) tests and others. These tests are qualitative and remain positive for life regardless of therapy.⁶

Treatment for primary, secondary, and early latent syphilis is a single dose of benzathine penicillin. Late latent or latent syphilis of unknown duration includes three doses at one-week intervals.¹¹ There are specialized treatment regiments for neurosyphilis, pregnancy, and congenital infection. Response to therapy is indicated by a two times or more dilution decline in non-treponemal serology.

REFERENCES:

- 1. Kimberly A. Workowski, Bolan GA. Sexually Transmitted Diseases Treatment Guidelines. Vol 64.; 2015. doi:10.1097/00008480-200308000-00006.
- 2. Kimberly A. Workowski, Bolan GA. Sexually Transmitted Diseases Treatment Guidelines. Vol 64.; 2015. doi:10.1097/00008480-200308000-00006.
- 3. Shockman S, Buescher LS, Stone SP. Syphilis in the United States. Clin Dermatol. 2014;32(2):213-218. doi:10.1016/j.clindermatol.2013.08.005.
- 4. Bull SS, Rietmeijer C, Fortenberry JD, et al. Practice patterns for the elicitation of sexual history, education, and counseling among providers of STD services: results from the gonorrhea community action project (GCAP). Sex Transm Dis. 1999;26(10):584-589. http://www.ncbi.nlm.nih.gov/pubmed/10560723. Accessed March 8, 2017.
- 5. Dubourg G, Raoult D. The challenges of preexposure prophylaxis for bacterial sexually transmitted infections. Clin Microbiol Infect. 2016;22(9):753-756. doi:10.1016/j.cmi.2016.08.022.
- 6. Cantor A, Nelson HD, Daeges M, Pappas M. Screening for Syphilis in Nonpregnant Adolescents and Adults: Systematic Review to Update the 2004 U.S. Preventive Services Task Force Recommendation. US Prev Serv Task Force Evid Synth Former Syst Evid Rev. 2016;(136). http://www.ncbi.nlm.nih.gov/books/NBK368467/%5Cnhttp://www.ncbi.nlm.nih.gov/pubmed/27336106.
- 7. Yu X, Zheng H. Syphilitic Chancre of the Lips Transmitted by Kissing. Medicine (Baltimore). 2016;95(14):e3303. doi:10.1097/MD.00000000003303.
- 8. Hook EW. Syphilis. Lancet. 2016;6736(16). doi:10.1016/S0140-6736(16)32411-4.
- 9. Review C. Screening for syphilis infection in nonpregnant adults and adolescents: Recommendation statement. Am Fam Physician. 2016;94(10):842A 842C. doi:10.1001/jama.2016.5824.
- 10. Balagula Y, Mattei PL, Wisco OJ, Erdag G, Chien AL. The great imitator revisited: The spectrum of atypical cutaneous manifestations of secondary syphilis. Int J Dermatol. 2014;53(12):1434-1441. doi:10.1111/ijd.12518.
- 11. Centers for Disease Control and Prevention. Sexually Transmitted Diseases Treatment Guidelines, 2015. Vol 64.; 2015. doi:10.1097/00008480-200308000-00006.



Have a question or an interesting case? <u>Contact us</u>!

The Clinical Consultation Service is intended for licensed healthcare professionals and STD program staff. We do not provide direct medical care, treatment planning, or medical treatment services to individuals.

SEXUAL HEALTH IN THE NEWS...

- ► The NYC Department of Health and Mental Hygiene renames STD clinics as Sexual Health Clinics, expanded STD/HIV services
- April is STD AWARENESS MONTH!
 - CDC STD Awareness Month 2017 Theme: <u>Syphilis</u>Strikes Back
 - National Coalition of STD Directors (NCSD) <u>Blog</u>
 <u>Series</u> will highlight increasing rates of STDs amongst LGBTQ people, in particular Young Gay and Bisexual Men
 - Join the Social Media and Twitter Thunderclap to promote STD prevention, testing, and treatment. Check out these <u>draft social media posts</u> and use #STDMonth17!

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RESOURCE LINKS

National Network of STD Prevention Training Centers (NNPTC)

NNPTC STD CME Online Training

Centers for Disease Control & Prevention STD

National Coalition for Sexual Health

NYC Department of Health & Mental Hygiene

National Coalition of STD Directors & Partner Resources

Physicians for Reproductive Choice

American Sexual Health Association

NYS DOH Clinical Education Initiative

Please click each organization name for more information.



IF YOU ARE AT CUMC AND NEED A CONSULTATION OR INTERESTED IN MAKING A REFERRAL...

The Comprehensive Health Program (CHP) provides education and training for CUMC health practitioners. Additionally, a wide range of clinical services are available for clients with STIs, HIV, and HepC. Further, we have an active PEP and PrEP program and can provide comprehensive management (including provision of immediate treatment).

Contact: 917-580-1682