NEW YORK CITY DEPARTMENT OF HEALTH AND MENTAL HYGIENE
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Commissioner

Recognition, Diagnosis, Treatment, and Prevention *of Trichophyton mentagrophytes* Genotype VII (TMVII)

- In June 2024, the first case of sexually transmitted *Trichophyton mentagrophytes* genotype VII (TMVII) in the United States (U.S.) was identified in a patient in New York City (NYC). Since then, other cases have been diagnosed in NYC.
- Have a high suspicion for TMVII in patients presenting for inflammatory, painful, or persistent skin lesions affecting the genitals, buttocks, or face.
- Diagnosis with potassium hydroxide preparation and fungal culture of skin scrapings should be attempted in all suspected cases of TMVII. Fungal isolates should be submitted to the Mycology Laboratory at the New York State Department of Health's Wadsworth Center for genetic sequencing and species identification.
- Empiric treatment should be initiated if TMVII is suspected based on clinical presentation, such as in cases of topical treatment failure, highly inflammatory appearance, and anogenital lesions.

July 24, 2024

Dear Colleague:

Trichophyton mentagrophytes genotype VII (TMVII) is a rare dermatophyte (e.g., ringworm or tinea) infection that causes highly inflammatory, painful, and persistent lesions. The first known case of sexually transmitted TMVII in the U.S. was reported in NYC in June 2024, and other cases have been diagnosed since. Prior to this, sexual transmission of TMVII had been reported in France, primarily among men who have sex with men and among other people in Europe who had engaged in sex tourism in Southeast Asia. TMVII is reported to be spreading in Europe and other global regions.

The first U.S. case of TMVII occurred in an HIV-negative man living in NYC who reported recent travel to Europe and California and multiple male sexual partners while traveling. The individual developed a scaly, erythematous, and pruritic rash affecting the groin, genitals, and legs. An early misdiagnosis was eczema. After being correctly diagnosed with TMVII, he was successfully treated with a prolonged antifungal regimen including oral terbinafine and itraconazole.

TMVII is not a reportable condition in NYC. However, given the novelty of sexually transmitted dermatophyte infections and high levels of infectiousness and potential for local spread, NYC providers should be aware of TMVII and other sexually transmitted dermatophytes as an emerging public health concern and understand steps for diagnosis and management.

The NYC Department of Health and Mental Hygiene (NYC Health Department) recommends the following to prevent local spread of TMVII and expedite clinical recognition, diagnosis, and treatment:

1. Suspect TMVII in patients with highly inflammatory, painful, or persistent skin lesions that may appear as sharply demarcated, erythematous, scaling plaques or pustules on the genitals, buttocks, or face (see article for photos). Unlike other dermatophyte infections affecting the groin (e.g., jock itch), TMVII may affect the shaft of the penis and usually fails to clear with topical antifungal regimens. Like syphilis and mpox, TMVII is characterized by a rash; however, TMVII is not systemic infection.

2. Test for co-infections with other sexually transmitted infections (STI). Refer to the Centers for Disease Control and Prevention's 2021 STI Treatment Guidelines and the NYC Health Department's mpox webpage for diagnostic and treatment recommendations for other STI.
3. Attempt to confirm TMVII diagnosis with both in-clinic microscopy and fungal culture to ensure appropriate and adequate treatment, even if TMVII is already strongly suspected.
    a. In-clinic microscopy: Microscopy with potassium hydroxide (KOH) preparation of skin scrapings can be used to visualize segmented hyphae to confirm fungal infection. See Centers for Disease Control and Prevention (CDC) KOH Procedures for more information on performing this assay. KOH preparation for the detection of dermatophyte infections has relatively low sensitivity, and so negative results should not preclude treatment in highly suspicious cases.
    b. Fungal culture of skin scrapings: If a *Trichophyton* species is identified by fungal culture, request that the isolate be saved for further testing. The fungal culture sample should be sent to the Mycology Laboratory at the New York State Department of Health's Wadsworth Center for genomic sequencing to differentiate TMVII from other *Trichophyton* species (e.g., *T. mentagrophytes*, *T. interdigitale*).
4. Do not delay treatment due to lack of in-clinic microscopy or fungal culture results, although diagnostic testing should be attempted.
5. Start empiric treatment with oral terbinafine 250 mg once daily if TMVII is suspected based on clinical presentation, including for cases with a highly inflammatory appearance, persistent and painful anogenital lesions, or treatment failure with topical antifungals (e.g., clotrimazole or topical terbinafine). Continue treatment until the infection has resolved, which may take weeks to months.
6. Consider referring the patient to an infectious disease specialist or dermatologist and switching to oral itraconazole 200mg once daily if there is no clinical improvement with terbinafine after 2 to 4 weeks of treatment.
7. Counsel patients on strategies to prevent transmission of, or reinfection with, dermatophyte infections, including avoiding sexual contact while experiencing symptoms, avoiding skin-to-skin contact with a rash, avoiding shared use of personal items and clothing, washing and drying clothing on high heat to kill fungal spores, and avoiding use of topical steroids.

For assistance in testing or clinical management of suspected TMVII or other sexually transmitted dermatophyte infection, providers can contact the STD Clinical Consultation Network, CDC at fungaloutbreaks@cdc.gov, or the NYC Health Department's Provider Access Line at 866-692-3641.

Sincerely,

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