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Title of Presentation: Invasive dermatophytosis due to Trichophyton tonsurans: A report of a case in an immunocompetent host.

Abstract:

Trichophyton tonsurans, which is a pathogenic dermatophyte that typically causes superficial scaling lesions in the keratinized epithelial layer of the skin, is a frequent cause of tinea capitis in the United States. Some members of the Trichophyton family, largely T. rubrum, have been reported to invade into deeper tissues in the setting of immunosuppression due to organ transplant or HIV infection. We present a case of invasive dermatophytosis with T. tonsurans in an immunocompetent, 40 year old African American female. Clinically, our patient presented with a 3-4 year history of recurrent, tender, erythematous, subcutaneous nodules with focal overlying pustules on the anterior shins and upper extremities bilaterally. On histopathology, a deep dermal mixed inflammatory infiltrate was present, and PAS, Brown-Brenn, and Fite stains were all negative for fungus, bacteria, and mycobacteria, respectively. Superficial KOH was negative but tissue sent for fungal culture eventually grew T. tonsurans. She was treated successfully with a 4-week course of oral terbinafine and lesions completely resolved; however 3 months after discontinuing terbinafine, she had a recurrence of one lesion on her lower leg. To our knowledge, this is the first case of an invasive dermatophytosis attributed to infection with T. tonsurans in an immunocompetent patient.