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Generalized, pruritic skin eruption in an immunocompromised patient

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Case

A 50-year-old African-American female with a past medical history significant for human immunodeficiency virus (HIV) and non-adherence to HAART therapy, was admitted for failure to thrive and a generalized, pruritic skin eruption. The patient first noticed the eruption on her feet a few months prior to admission. Within days, it had spread to her torso, upper extremities, and scalp. On physical examination, she had well-demarcated, erythematous and scaly, confluent plaques involving the torso, upper and lower extremities (Figure 1). In addition, she had thick, hyperkeratotic plaques on the palms and soles as well as dystrophic fingernails (Figure 2). Skin scrapings were performed and histopathology evaluation was obtained (Figure 3).

What is your diagnosis?

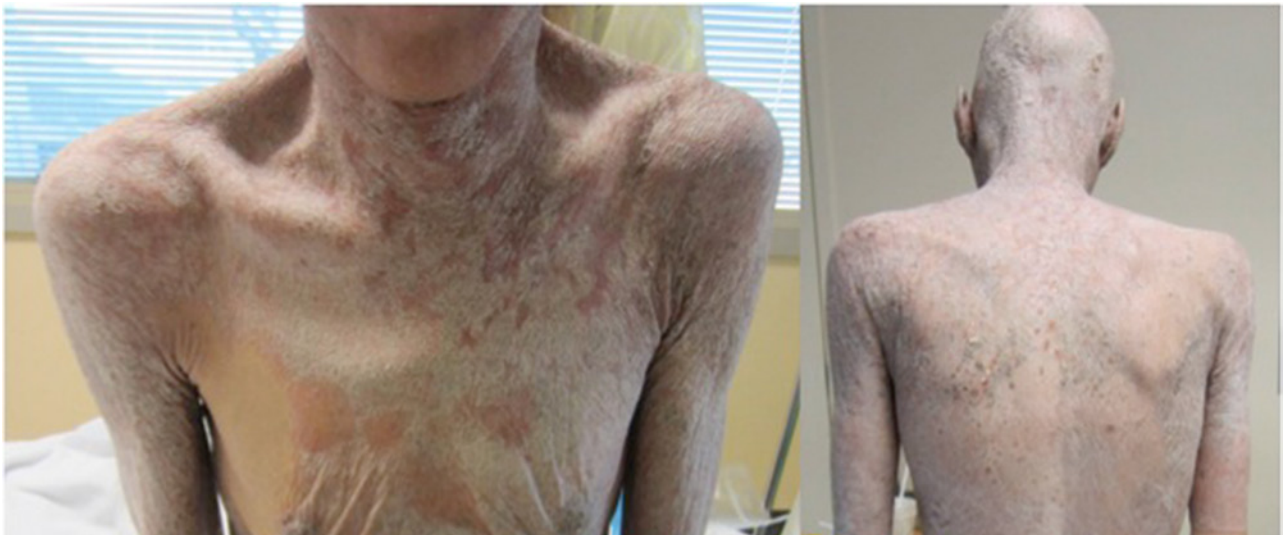

Figure 1. Well-demarcated, erythematous and scaly, confluent plaques on the patient's back. (Copyright: ©2014 Wang et al.)

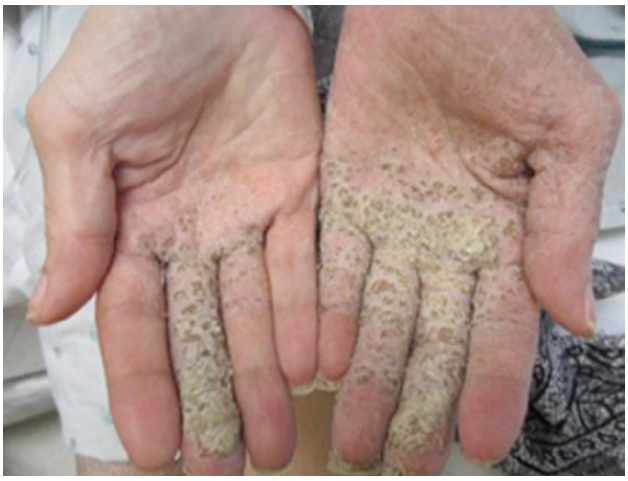

Figure 2. Thick, hyperkeratotic plaques on the palms and dystrophic fingernails. (Copyright: ©2014 Wang et al.)

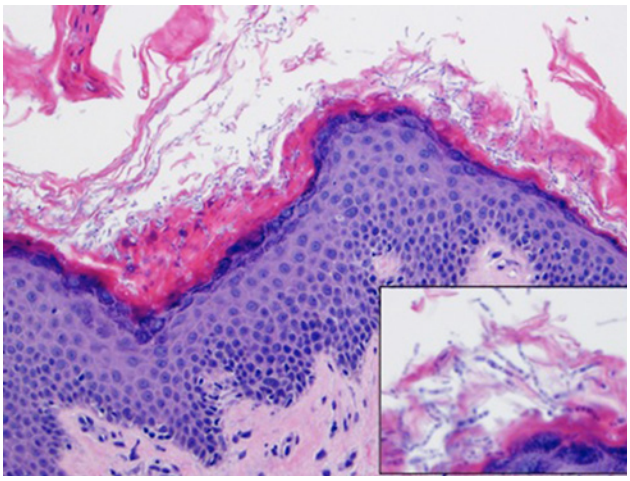

Figure 3. Punch biopsy, skin at the back: numerous hyphae in the stratum corneum and a superficial, mixed perivascular infiltrate were evident on histopathologic examination. (Copyright: ©2014 Wang et al.)

Diagnosis

Given the clinical and histopathological findings, a diagnosis of tinea corporis in an immunocompromised patient was made.

Clinical course

The patient was treated with fluconazole 100 mg daily for 3 months. Her eruption improved within days of starting the therapy.

Discussion

Tinea corporis is a dermatophyte infection of the skin. Factors that determine severity of clinical disease include the immune system of the host, the inhibitory effect of sebum, the presence of mannans in the cell walls of dermatophytes and their immune-inhibitory effects, as well as keratinases, which allow invasion of fungi into the stratum corneum. Differential diagnosis included and was not limited to crusted scabies, psoriasis and sebo-psoriasis, nutritional deficiency. Extensive tinea corporis requires systemic therapy with antifungal medications. Standard treatments include terbinafine 250 mg daily for a week, fluconazole 150-200 mg per week for 2-4 weeks, itraconazole 200 mg daily for 1 week, or griseofulvin 500–1000 mg/day (microsize) or 375–500 mg/day (ultramicrosize) for 2–4 weeks. In immunocompromised patients, a longer course of therapy may be indicated.