

Crusted Scabies Presenting as White Superficial Onychomycosislike Lesions

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PRACTICE POINTS

- Crusted scabies is asymptomatic; therefore, any white lesion at the surface of the nail should be scraped and examined with potassium hydroxide.
- Immunosuppressed patients are at risk for infection.

To the Editor:

We report the case of an 83-year-old male nursing home resident with a history of end-stage renal disease who presented with multiple small white islands on the surface of the nail plate, similar to those seen in white superficial onychomycosis (Figure 1). Minimal subungual hyperkeratosis of the fingernails also was observed. Three digits were affected with no toenail involvement. Wet mount examination with potassium hydroxide 20% showed a mite (Figure 2A) and multiple eggs (Figure 2B). Treatment consisted of oral ivermectin 3 mg immediately and permethrin solution 5% applied under occlusion to each of the affected nails for 5 consecutive nights, which resulted in complete clearance of the lesion on the nail plate after 2 weeks.

Crusted scabies was first described as Norwegian scabies in 1848 by Danielsen and Boeck,¹ and the name was later changed to crusted scabies in 1976 by Parish and Lumholtz² because there was no inherent connection between Norway and Norwegian scabies. It is a skin infestation of *Sarcoptes scabiei* var *hominis* and more commonly is seen in immunocompromised individuals such as the



FIGURE 1. Crusted scabies. Nail plate with multiple small superficial white islands with mild subungual hyperkeratosis.

elderly and malnourished patients as well as those with diabetes mellitus and alcoholism.^{3,4} Patients typically present with widespread hyperkeratosis, mostly involving the palms and soles. Subungual hyperkeratosis and nail dystrophy also can be seen when nail involvement is present, and the scalp rarely is involved.⁵ Unlike common

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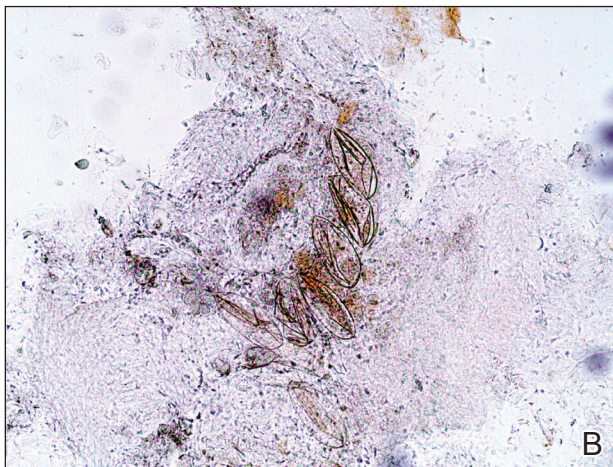
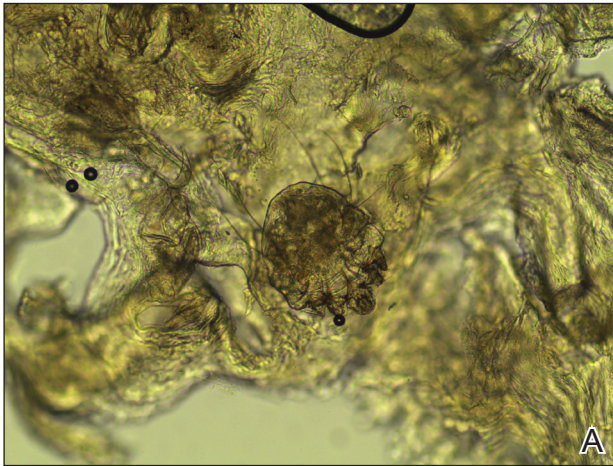


FIGURE 2. A and B, Wet mount with potassium hydroxide 20% showing a *Sarcoptes scabiei* var *hominis* mite and mite eggs (original magnifications $\times 40$).

scabies, skin burrows and pruritus may be minimal or absent, thus making the diagnosis of crusted scabies more difficult than normal scabies.⁶ Diagnosis of crusted scabies is confirmed by direct microscopy, which demonstrates mites, eggs, or feces. Strict isolation of the patient is necessary, as the disease is very contagious. Treatment with oral ivermectin (1–3 doses of 3 mg at 14-day intervals) in combination with topical permethrin is effective.⁷

We present a case of crusted scabies with nail involvement that presented with white superficial onychomycosis-like lesions. The patient's nails were successfully treated with a combination of oral ivermectin and topical permethrin occlusion of the nails. In cases with subungual hyperkeratosis, nonsurgical nail avulsion with 40% urea cream or ointment has been used to improve the penetration of permethrin. Partial nail avulsion may be necessary if subungual hyperkeratosis or nail dystrophy becomes extreme.⁸

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