

cleared in both patients, and the occlusive dressings were reapplied, without recurrence of folliculitis. At the end of the 8-week treatment period, patients assessed their satisfaction with the treatment. Seventeen of 21 patients (81%) were satisfied, eight patients (38%) were completely satisfied, and nine (43%) were partially satisfied. Four patients (19%) were dissatisfied.

DISCUSSION

We found that a water-impermeable, non-silicone-based occlusive dressing worn continuously for 8 weeks was effective in the majority of keloids treated. This indicates that the presence of silicone is not required for an occlusive dressing to have salutary effects on keloidal tissue. These findings are consistent with the hypothesis that occlusion with resulting hydration may be responsible for these effects. The mechanism by which hydration exerts its antikeloidal effects is unknown. Wood et al.⁶ have reported that occlusion decreases interleukin-1 α messenger RNA. Interleukin-1 is a proinflammatory cytokine exhibiting pleiotropic effects, including increasing fibroblast collagenase glycosaminoglycan

synthesis directly and inducing the production of interleukin-6, which in turn is also an activator of human fibroblast synthesis of extracellular matrix components.⁷ Further studies are needed to determine whether silicone-based sheeting or a nonsilicone sheeting is more effective.

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Therapeutic efficacy of terbinafine in the treatment of three children with tinea tonsurans

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Dermatophyte infections of the nails, hair, and scalp generally require systemic therapy.¹⁻³ For more than 25 years, griseofulvin has been the drug of choice, but it is fungistatic, which is associated with a high rate of relapse.⁴ More recently, ketoconazole has been shown to be effective, but treatment may be prolonged and its use has been somewhat limited

because of its potential hepatotoxicity.^{5,6} Newer azole antifungals, such as itraconazole and fluconazole, have a better safety profile.

Another antifungal agent is terbinafine, an allylamine.⁷ Topical or oral terbinafine has been shown to produce rapid clearing with minimal relapse in patients with tinea cruris, tinea corporis, onychomycosis, and tinea pedis.⁸⁻¹¹ Although there has been extensive experience in adults, the use of terbinafine in the treatment of children has been limited.

We describe the effectiveness of terbinafine in three children with chronic tinea capitis infections that had been refractory to previous antifungal therapy.

Patient 1 had a *Microsporum canis* infection of the scalp for 1 year. She had received treatment with

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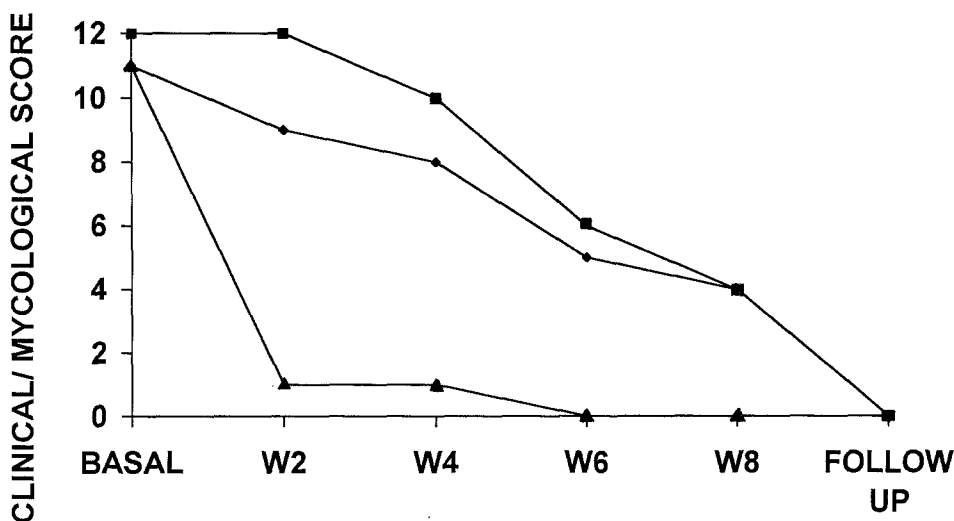


Fig. 1. Clinical and mycologic evolution. Scores of each patient were calculated as the arithmetic addition of the results of the clinical features (0 = absent; 1 = mild; 2 = moderate; 3 = severe) and mycologic features (0 = negative; 1 = positive). Basal, Baseline; W, week. Diamonds, Patient 1; squares, patient 2; triangles, patient 3.

griseofulvin (19 mg/kg per day) for 20 days. Patient 2, who had a *Trichophyton tonsurans* infection, had received systemic therapy for 4 years: griseofulvin (10 mg/kg per day) for 8 weeks in 1990, ketoconazole (8.5 mg/kg per day) for 4 weeks and griseofulvin (21 mg/kg per day) for 4 weeks in 1991, and ketoconazole (15 mg/kg per day) for 4 weeks in 1992. This patient also had *T. tonsurans* onychomycosis of the fingernails of her left hand. Patient 3, who had a *T. tonsurans* infection for 6 years, had received systemic griseofulvin and ketoconazole on several occasions. The dosage and duration of the previous therapy are unknown. Initially, the patient was treated with both, ketoconazole (6 mg/kg per day) and griseofulvin (10 mg/kg per day) for 12 weeks without a response.

The clinical and mycologic results of the three patients given terbinafine therapy are shown in Fig. 1. Patients 1 and 2 received higher doses of terbinafine than those usually recommended for their body weight because of the severity of their condition; patient 3 received the usual dose. Treatment was stopped when the patients were cured, defined clinically as absence of signs and symptoms and mycologically as both negative microscopic observation and culture. Patients were examined every 2 weeks.

Patient 1 required 8 weeks of therapy. The treatment included two different terbinafine doses: the first, 4 weeks at 125 mg (7.5 mg/kg per day) once daily; the second, 4 weeks at 185 mg (11 mg/kg per

day) once daily. The infection cleared mycologically at week 8. Treatment was stopped and the patient was cured 4 weeks later.

Patient 2 required 8 weeks of treatment (9.5 mg/kg per day) before significant improvement was seen. She was completely cured 4 weeks later, but the onychomycosis had not completely cleared.

Patient 3 required 2 weeks of systemic treatment with 5 mg/kg per day. A complete cure was observed 4 weeks after completion of treatment.

None of the patients received any concomitant medication for the infection or any other condition during the study period. No serious adverse reactions were reported by any of the patients.

DISCUSSION

Our results indicate that terbinafine was effective in the treatment of three children with tinea capitis refractory to other therapies. Terbinafine has a broad spectrum of activity and is fungicidal.⁷ Its lipophilicity explains its capacity to penetrate the stratum corneum shortly after oral administration.¹² Continued dosing with terbinafine results in a steady increase in the concentration of the drug, reaching concentrations well above the minimal inhibitory concentration (MIC) for most dermatophytes. Moreover, its slow elimination half-life after oral therapy is stopped permits concentrations that are high enough to exert its action for an additional 2 to 3 weeks. This helps explain the continued effect in our

patients because improvement continued even after the medication was stopped. Terbinafine has already been shown to cure resistant mycoses, such as onychomycosis or endocarditis, that had been refractory to other drugs in adult patients.^{12, 13}

On the basis of our experience with these three patients, we would not advocate terbinafine as the established therapy for tinea capitis.

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Perforating pilomatricoma

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Pilomatricoma, also known as calcifying epithelioma of Malherbe, is an uncommon cutaneous neoplasm that arises from primitive cells of the hair matrix. Multiple pilomatricomas and perforating forms are rare.^{1, 2} We report a case of perforating pilomatricoma associated with multiple lesions and review the literature.

CASE REPORT

A 71-year-old woman had a 4-year history of an enlarging mass on her right forearm. It became ulcerated and drained a purulent material 1 month earlier. On examination, the mass was a 6 × 7 cm, nontender, firm,



Fig. 1. Ulcerated pilomatricoma on right forearm of 71-year-old woman.

fixed tumor on her right forearm (Fig. 1). On her left arm two firm, nontender, mobile, somewhat translucent, exophytic nodules, one 2 × 1 cm and the other 1 × 0.1 cm, were noted. These lesions did not show any ulceration.

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