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it is unlikely given the total lack of vellus or terminal hair growth by 3 months. Based on the current findings, we would not recommend the use of this medication for the treatment of patients with alopecia areata without additional evidence of therapeutic benefit.

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Monochromatic excimer light (308 nm) in patch-stage IA mycosis fungoides

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Recently, numerous studies have been reported concerning the treatment of early-stage mycosis fungoides (MF) with narrowband (311-nm) UVB, claiming a beneficial response. We have used for the first time a 308-nm monochromatic excimer light, a new kind of xenon-chloride lamp, in the treatment of patch stage IA MF. We treated 7 patch lesions in 4 patients with unequivocal clinicopathologic diagnosis of MF. All lesions achieved clinical and histologic complete remission. The number of weekly sessions varied from 4 to 11 (mean 6.5; median 5.5). The total UVB 308-nm irradiation dose ranged from 5 to 9.3 J/cm^2 (mean 7.1 J/cm^2; median 7 J/cm^2). All lesions remained in stable complete remission after a follow-up of 3 to 28 months. No remarkable side effects were reported. Our preliminary results suggest that monochromatic excimer light phototherapy is a possibly very useful treatment modality in patch stage IA MF. (J Am Acad Dermatol 2004;50:943-5.)

The treatment of stage I mycosis fungoides (MF), the prototype of cutaneous T-cell lymphoma, consists of topical steroids, UVB phototherapy, photochemotherapy (psoralen-UVA), topical chemotherapy, or total skin electron-beam irradiation.[1] Good results obtained with broadband UVB phototherapy (280- to 320-nm wavelength) in the treatment of stage I MF (especially in its patch phase) have been reported previously.[2,3] Recently, several studies have been published concerning the treatment of stage I MF with narrowband (311-nm) UVB phototherapy, claiming a beneficial response.[4-7]

Recently, it has been demonstrated that the light produced by xenon-chloride excimer, generated by sophisticated devices, with monochromatic light emission at 308 nm (monochromatic excimer light [MEL]) quickly and selectively induces the clearance

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of psoriatic lesions with an excellent benefit/risk profile.[8]

We report herein the preliminary results of our pilot study with MEL phototherapy in the treatment of patch stage IA MF. This specific condition, characterized by limited extension of the disease and thickness of the lesions, was considered ideal to check safely the possible benefits of this new treatment modality.

PATIENTS AND METHODS

Patients

Four patients (2 men and 2 women; age range 35-78 years) with unequivocal clinicopathologic diagnoses of patch stage IA MF were recruited. Of the 4 patients, one had just been given a diagnosis, and 3 were on first relapse after psoralen-UVA therapy, which had been discontinued at least 6 months before starting MEL phototherapy. After informed consent, patients were required to discontinue topical steroid treatment for 4 weeks.

Methods

The 308-nm XeCl MEL (Excilite-Deka, Florence, Italy) has a power density of 50 mW/cm^2 at the distance of 15 cm from source, with a maximum irradiating area of 512 cm^2. Before treatment, all patients were phototested to determine the minimal erythema dose of 308-nm UVB by exposing a small area of uninvolved skin on the buttocks to a geometric dose range between 150 and 500 mJ/cm^2 for 3 to 10 seconds. After protecting nonaffected skin with papers or a total-block sunscreen cream, each MF lesion was irradiated. The first treatment session started from $\times 2$ to $\times 3$ minimal erythema dose (range: 0.5-1 J/cm^2) and increased by 150 to 500 mJ/cm^2 (3-10 seconds) during subsequent sessions. Each patient underwent a variable number of treatment sessions (between 3 and 8). The treatment sessions were performed weekly. Treatment was stopped on clinical complete remission. Biopsy specimens were taken before and after MEL phototherapy. Clinical evaluation was performed weekly for 3 months, then monthly. No additional treatment was performed during the study period, except for an emollient cream.

RESULTS

All 7 lesions of 4 patients with patch stage I MF achieved both clinical (Figs 1 and 2) and histologic complete remission. The number of weekly sessions varied from 4 to 11 (mean 6.5; median 5.5). The total UVB 308-nm irradiation dose ranged from 5 to 9.3 J/cm^2 (mean 7.1 J/cm^2; median 7 J/cm^2). All patients underwent complete remission, which remained stable during follow-up of 3 to 28 months. In particular, all treated lesions remain cleared. During follow-up, one patient experienced a relapse in a different skin site, which was successfully treated with the same protocol. The most common side effects were minimal erythema and itch, eventuating into mild and transient hyperpigmentation.

Fig 1. A 38-year-old woman with patch stage IA mycosis fungoides. Large patch of right buttock before treatment with monochromatic excimer light 308-nm phototherapy.

Fig 2. Same patient as in Fig 1 after treatment with monochromatic excimer light 308-nm phototherapy (5 sessions).

DISCUSSION

Recently, two studies concerning the treatment of stage I MF with narrowband (311-nm) UVB have been published. In one of the above studies, complete remission was achieved in 17 of 21 patients (81%), with a mean relapse-free interval of 24.5 months (range: 2-66 months).[7] In the other study, complete remission was achieved in 13 of 24 patients (54.2%), with a mean time to relapse of 12.5 weeks.[6]

In our pilot study, MEL was used for the first time in the treatment of patch stage IA MF. We treated 7 lesions in 4 patients with patch stage IA MF, with clinicopathologic complete remission in all cases. Compared with traditional phototherapy, MEL can

selectively treat single lesions, sparing clinically nonaffected skin and achieving clinical remission very quickly. Compared with UVB 311-nm therapy, usually administered 2 to 3 times a week on nonconsecutive days, MEL treatment sessions were performed weekly, with very good patient compliance.

The mechanisms of action of UVB therapy in MF are still unknown. In vitro experiments show that UVB decreased the allo-activating and antigen-presenting capacity of Langerhans cells and increased IL-2 and IL-6 production by human keratinocytes.[9,10] Recently, it has been indicated that psoriatic skin after MEL therapy is associated with significant T-cell depletion and alteration of apoptosis-related molecules, accompanied by a decreased proliferation index and clinical remission.[11] In the specific context of MF, narrowband and monochromatic UVB light could functionally suppress the neoplastic, clonal T-cell population in the skin, and act as up-regulator of immune modulation.

Our preliminary results suggest that MEL phototherapy is a possibly very useful treatment modality in patch stage IA MF. It remains to be elucidated as to what is the best protocol in terms of ratio between risks (side effects) and benefits (rapidity and stability of remissions). A larger, multicenter experience and controlled clinical trials are needed to check the possible role of MEL phototherapy as first-line treatment of stage I MF compared with narrowband UVB and, especially, psoralen-UVA therapy.

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