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CORRESPONDENCE

Excimer-laser (308 nm) treatment of large plaque parapsoriasis and long-term follow-up

Large plaque parapsoriasis is a form of chronic erythemato-squamous dermatosis which is difficult to treat; creating a clinical distinction from early mycosis fungoides is still controversial. UV treatment is a significant component among the therapeutic options [1-3]. Currently there are only studies examining the impact of excimer laser (308 nm) for early stage mycosis fungoides [4-6].

A 70-year-old male presented with a three-year history of erythematous, round, scaly patches of different sizes (< and > 5 cm) on the backs of his knees, upper arms and forearms. Discontinuing topical steroids (Class B and C) regularly led to recurrence. Broad-band UVB treatment conducted elsewhere was unsuccessful even after multiple sessions, and so was discontinued.

After histological/immunhistological examinations and a T-cell receptor gene rearrangement at Mannheim University, the diagnosis of large plaque parapsoriasis was confirmed. The findings did not confirm the presence of a cutaneous T-cell lymphoma, particularly of mycosis fungoides.

Continued treatment with UVA-1 therapy was advised, but there was no improvement even after 20 sessions (90-130 J/cm^2 per session). We thus decided to treat with an excimer laser (wavelength 308 nm, frequency 200 Hz, square diameter 1.41 cm^2, Tuilaser Germany, Stella 1.0).

The patient was thoroughly advised about the experimental character of the treatment and concomitant reactions. We received consent and began treating a defined representative test area on the right forearm *(figure 1A)*.

After 7 sessions (single dose 400-600 mJ/cm^2, cumulative dose 3.45 J/cm^2) on the test area, there was complete resolution which lasted for a follow-up period of 3 months. We consequently treated all patches over a period of 2 months (10 sessions, 1 week intervals, individual dose 500-750 mJ/cm^2, cumulative 5.9 J/cm^2). There was 5-10% overlapping in the treatment pulses. The concomitant reactions were mild erythema, scaling and one instance of blisters and crusting.

Before treating all patches we took another biopsy from the laser treated and an untreated site. The histological findings in the area treated with the laser (2 months after the last laser treatment) revealed dermal tissue normal for that site; the untreated area showed the same histological profile as the first biopsy.

After 2 years the patient showed no clinical evidence of recurrence in over 90% of the affected areas *(figure 1B)*.

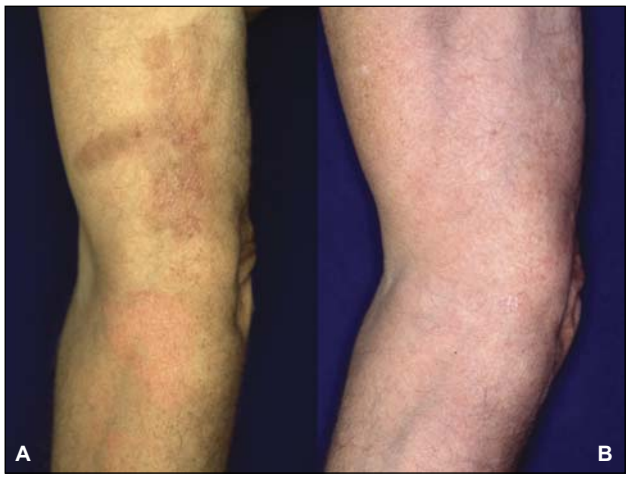

Figure 1. A. Area on the medial right forearm before treatment. **B.** 2 years after laser treatment of the entire area.

So far, few studies have been published on this topic. Mori *et al*. reported treating stage IA mycosis fungoides in 4 patients (7 individual plaques) using an excimer laser. All the lesions resolved completely from a clinical and histological perspective. No patient experienced a remission in the follow-up period of 3 to 28 months [4]. Nisticò *et al*. studied 5 patients who had 10 lesions and early stage mycosis fungoides; the patients achieved complete remission by the last follow up (1 year) [5]. Passeron *et al*. recently demonstrated the efficacy of excimer laser treatment in 4 of 5 cases in patch and plaque stages of mycosis fungoides with a follow up time of 3 months [6].

The areas in which excimer laser treatment is superior to conventional UVB treatment (311 nm) needs further investigation. The use of an excimer laser in treating large plaque parapsoriasis is only recommendable when there are individual localized areas.

The major advantages of laser treatment over UVB treatment are the much lower average cumulative dose, greater efficacy and higher long-term remission rates [4-8]. Also noteworthy is the comparative number of sessions required: 4-10 sessions for excimer treatment versus 5-90 sessions for narrow-band UVB treatment, a clear-cut argument in favor of the laser.

We conclude that excimer laser treatment is an effective method of achieving a beneficial and lasting impact on

large-plaque psoriasis and early stage MF. If the plaques exist on over 20% of the body surface, however, the treatment is currently not advisable because it is too time consuming. ■

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