Photoactivated Topical 8-Methoxypsoralen in Repigmentation of a Tuberculoid Leprosy Lesion

TO THE EDITOR:

We have reported a case of tuberculoid leprosy in which repigmentation was accelerated by use of systemic 8-methoxypsoralen followed by exposure to sunlight (PUVASOL) ([2]).

An 18-year-old female with a tuberculoid leprosy lesion over the extensor aspect of the right elbow was treated with 600 mg of rifampin once a month for 6 months and 100 mg of dapsone daily for 2 years. Treatment was then discontinued and she was kept on 3 monthly follow up. During her second follow-up visit she complained of persistence of hypopigmentation. She was advised to take 20 mg of 8-methoxypsora-

len followed after 2 hr by exposure to sunlight for 15 min. She was unable to tolerate the treatment, and the treatment was changed to topical PUVASOL after 1 week. The 8-methoxypsoralen solution (0.75%) was applied topically, and she was advised to expose the lesion to sunlight for 2 min 1 hr after the topical application. The lesion was subsequently cleaned with soap and water.

The lesion showed mild repigmentation at the end of 1 month and significant repigmentation at the end of 3 months. Topical therapy was discontinued and pigmentation was seen to persist 3 months later. Unlike vitiligo where repigmentation is usually follicular, pigmentation was diffuse.

PUVA is an accepted mode of therapy in vitiligo and acts possibly by a) increasing the number of melanocytes, b) hypertrophy of melanocytes, c) increasing the arborization of dendrites, d) increasing the size of melanosomes, e) stimulating tyrosinase activity and promoting new tyrosinase formation, and f) enhanced migration of activated melanocytes from skin appendage ([1]). The last modality probably does not play an important role in repigmentation of tuberculoid leprosy since the lesions show alopecia and are anhydrotic. This is also possibly the reason for the pigmentation being diffuse instead of follicular, as seen in vitiligo.

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REFERENCES

1. Honigsmann, H., Wolff, K., Fitzpatrick, T. B., Pathak, M. A. and Parrish, J. A. Oral photochemotherapy with psoralens and UVA(PUVA): principles and practice. In: *Dermatology in General Medicine.* 3rd ed. Fitzpatrick, T. B., Eisen, A., Wolff, K., Freedberg, I. M. and Austen, K. F., eds. New Delhi: McGraw Hill Book Company, 1987, pp. 1533–1558.
2. Srinivas, C. R., Naik, R. P. C., Krupashankar, D. S. and Menon, S. K. Photoactivated 8-methoxypsoralen in repigmentation of tuberculoid leprosy. Int. J. Lepr. **55** (1987) 159–160.