

MAXIMIZING ULTRAVIOLET PHOTOTHERAPY
OF PSORIASIS: CLINICAL STUDIES

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One hundred twenty-eight patients with psoriasis vulgaris were studied to determine protocols and exposure dose increments which maximize therapeutic effects of ultraviolet radiation (UVR), minimize side effects and achieve beneficial results with the smallest number of treatments, lowest total exposure dose and lowest ultraviolet dose at the last treatment—before clearing. The protocols used were designed to elicit and maintain erythema, since less aggressive phototherapy was not regularly effective. In bilateral comparison studies, lubricants or crude coal tar prior to phototherapy were compared to UVR alone (Table 1). These studies showed that erythemogenic doses of UVR plus lubricants (mineral oil, hydrated petrolatum, base used for 5% crude coal tar) were necessary for complete clearing. Crude coal tar plus UVR was also very

TABLE 1
Comparisons of Treatment Regimens

	No. of Patients	No. Clear	% Clear	Average No. Treatments
<u>Bilateral Comparison Studies (Inpatients)</u>				
UVB + tar (daily) ^{3 4}	15	15	100	17
UVA + tar (daily) ⁴	5	5	100	17
UVB + lubricant (daily) ^{3 4}	10	10	100	18
UVB, no topicals (daily) ³	10	0	0	
<u>Total Body Treatments (Outpatients)</u>				
UVB + lubricants				
5 x/week ²	26	26	100	27
3 x/week ^{1 5}	40	36	90	23
2 x/week* ⁵	22	10	45	26

*poor compliance

effective but no better than base plus UVR. Approximately the same number of treatments were required whether given three, five, or seven days per week, but daily treatment required fewer treatments. In our hands twice weekly treatments are less effective, possibly because of low compliance associated with slow clearing (Table 1).

Studies in an additional 65 patients are in progress. These studies include bilateral comparison evaluation of soaking prior to treatment, the study of waveband interactions and a split study of daily versus twice daily therapy. To date it appears that prolonged soaks prior to UVR hasten improvement to a small but measurable extent. The twice daily treatment protocols used to date have not provided significant advantage over once daily therapy. Waveband interactions do occur. More information is needed. The major remaining unanswered questions are related to effectiveness of maintenance therapy, duration of remission and long-term cutaneous toxicity.

REFERENCES

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