ULTRAVIOLET PHOTOTHERAPY IN URAEMIC PRURITUS

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Introduction

Pruritus is a frequent and distressing symptom of patients on long-term haemodialysis. The reports [1,2] of satisfactory treatment with ultraviolet phototherapy prompted us to evaluate this treatment in a double-blind cross-over study.

Patients and Method

Ten patients (seven males, three females) who had been on dialysis for three months to 11 years (mean 3.7 years) and who were considerably inconvenienced by pruritus were studied. No patient had evidence of tertiary hyperparathyroidism during the study.

Patients were exposed to medium wave length ultra-violet light (UVB) or a long wave ultra-violet light (UVA). UVA is devoid of biological activity at the exposure used. Both light sources have similar light and heat output and appeared identical to the patient.

Treatment Schedules

Treatment times with both sources were identical and based on a starting dose of approximately 75–80% of the minimal erythema dose for UVB. Treatments were given twice weekly and equal exposure times were given to both front and back of the trunk. Dark goggles were worn throughout treatment and exposure ranged from one minute to each surface initially to 10 minutes to each surface after four weeks. Six patients were started on UVA and four on UVB. After four weeks they were switched to the alternate light source.
Assessment of Pruritus

At the beginning of the study patients were asked on two occasions to 'score' their pruritus by marking on a 10 cm line which was marked at one end 'completely clear' and at the other end 'totally incapacitated'. At weekly intervals they were asked to 'score' their pruritus without any reference to their previous assessment.

Results

Three of the four patients started on UVB experienced some relief of pruritus and continued to improve after changing to UVA, in one the pruritus disappeared. Three of the six patients started on UVA improved but only one of these continued to show any improvement on switching to UVB.

Comment

This study does not confirm the findings of Gilchrist et al [1]. UVA is an acceptable placebo as it appeared identical to the 'active' UVB source but the ultra-violet light emitted is devoid of biological activity. Pruritus is a notoriously difficult symptom to quantify and in the present study we have asked the patients to assess the severity themselves. Most haemodialysis patients are extremely helpful and co-operative and will frequently distort their symptoms to please their medical advisors. In spite of this fact we would not have predicted both groups of patients showing similar improvement in symptoms if one ultra-violet source had been significantly better than the other. This trial suggests that the response to ultra-violet light may be no more than a placebo effect.

Acknowledgments

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References

2 Saltzer, EI (1975) Cutis, 16, 298