

Itch Following Photochemotherapy for Psoriasis

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Abstract. Itch was measured quantitatively as nocturnal scratch in 12 patients with psoriasis treated with 8-methoxypsoralen and UVA and in 7 treated with dithranol. Three of those treated with PUVA showed an increase in nocturnal limb movement which was mostly due to itch but partly due to restlessness. There was little change in nocturnal limb movement in patients treated with dithranol.

Key words: Itch; Photochemotherapy (PUVA); Dithranol; Psoriasis

Patients with psoriasis have been reported to complain of itch after photochemotherapy with psoralen

and long-wave ultraviolet light (PUVA) (3, 6, 7). Because of the subjective nature of itch its precise relationship to treatment has not been defined. We therefore used the recently introduced method for the measurement of itch as nocturnal scratch (1) to define the relationship.

PATIENTS AND METHODS

All patients in the study had been admitted to hospital for treatment of psoriasis. Twelve (5 male and 7 female) patients whose ages ranged from 20 to 63 years were treated with PUVA and 7 (6 male and 1 female) aged between 22 and 64 years were treated with dithranol. Itch was measured as nocturnal scratch by the method of Felix & Shuster (1). This method uses modified self-winding watches as movement sensitive meters which are worn on the arms and legs. Limb movement is registered on the dial in arbitrary units. normal total overnight movement for all four limbs being less than 10 units. Nocturnal limb movement increases when scratching is provoked by itch and

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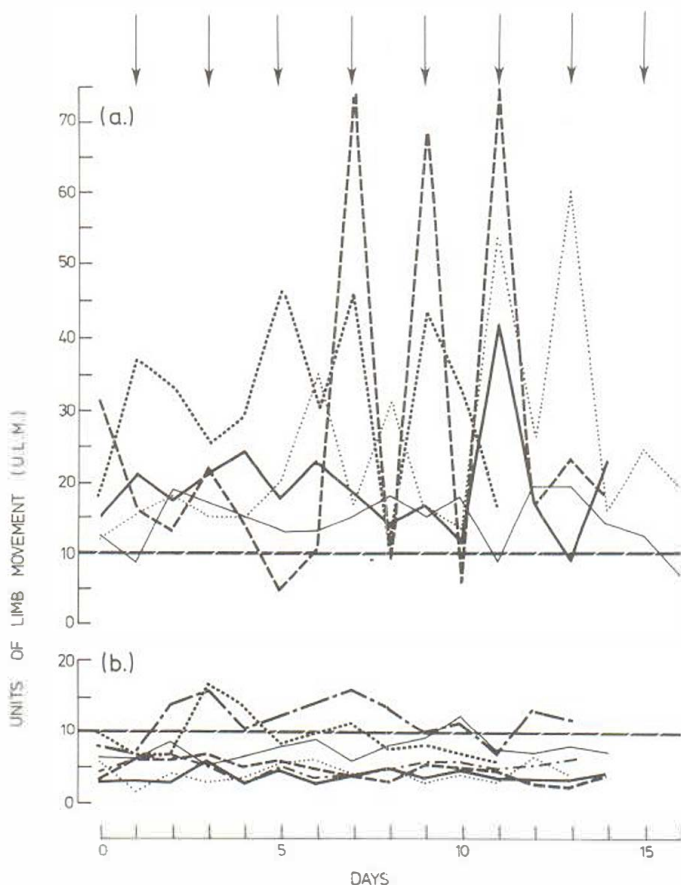


Fig. 1. Nocturnal limb movement in patients treated with PUVA (arrows). The upper curve (a) is of the 5 patients with mean of 10 or more units of limb movement on two nights before treatment, and the lower (b) is of the 7 patients with mean of less than 10 units of limb movement on two nights before treatment.

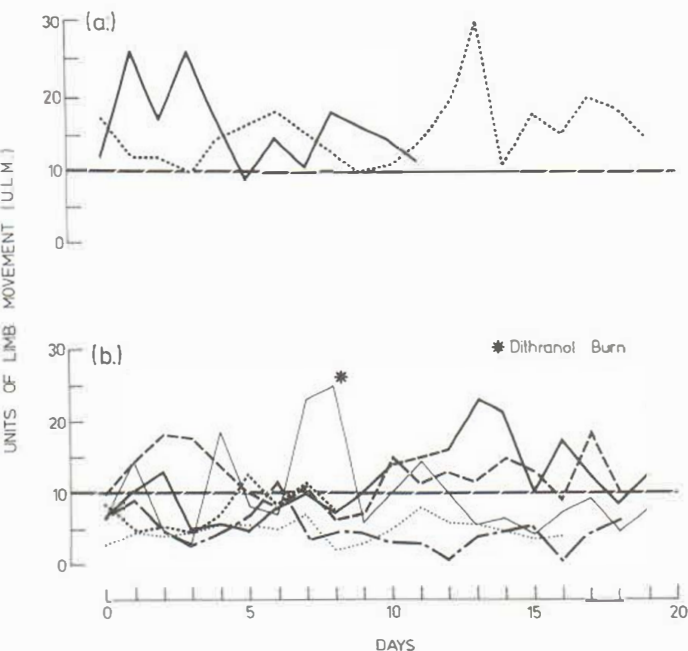


Fig. 2. Nocturnal limb movement in patients receiving daily treatment with dithranol. The upper curve (a) is of the 2 patients with mean of 10 or more units of limb movement on two nights before treatment, and the lower curve (b) is of the 5 patients with mean of less than 10 units of limb movement on two nights before treatment.

when the patient is restless; the arms move most during itch and the legs during restlessness (1).

Limb movement was measured for two nights before treatment and each night thereafter until, in the case of the PUVA-treated patients, a minimum of 6 treatments had been given or, in the case of the dithranol-treated patients, clearing of the rash had been achieved. PUVA treatment was carried out in the mornings 3 times a week, the patients receiving 8-methoxypsoralen orally in a dose of 0.6 mg/kg body weight 2 hours before exposure to a high-intensity source of long-wave ultraviolet light (UVA). The initial dose of UVA was given according to the patient's clinical skin type, as described elsewhere (6). Increments on successive treatment days were made empirically (3, 5). Dithranol treatment was given each morning according to a standard regimen (2) which included tar baths, short-wave ultraviolet light (UVB) and the application of dithranol in a stiff Lassar's paste.

None of these patients received antihistamines, sedatives or tranquillizers during the study, with the exception of one woman who was accustomed to taking 4 tablets a day of a combination of 250 mg methaqualone and 25 mg diphenhydramine (Mandrax). All patients had emulsifying ointment (NF) applied on the two pre-treatment nights; those treated with PUVA also had this ointment applied each day during their stay in hospital.

RESULTS

PUVA. Five of the 12 patients had increased limb movement with a mean of 10 or more units during the 2 pre-treatment nights and in the remaining 7, pretreatment movement was normal (Fig. 1).

Four of the patients showed a considerable increase in limb movement following treatment (Fig. 1) and in 3 this was due to excessive arm movement (scratch). The increase was most marked after several treatments: it occurred only on the nights following treatment and subsided between treatments recurring after two or three.

This response to PUVA was found only in those in whom the nocturnal limb movement was increased before treatment (Fig. 1).

Dithranol. Two of the 7 patients had a mean of 10 units or more during the two pre-treatment nights (Fig. 2) and in the remaining 5 pretreatment movement was normal. Small increases in limb movement occurred on the first and third nights in one patient and the twelfth night in another. A similar increase occurred on the 8th night in a patient who sustained dithranol burns (Fig. 2). Other smaller changes occurred without any regular pattern. As with PUVA the patients who showed the greatest increases in limb movement during treatment were those in whom pre-treatment values were greater than normal.

DISCUSSION

Our results show that 4 of the 12 patients treated with PUVA had a considerable increase in nocturnal limb movement during treatment. The increase

was mainly in arm movement, which has been shown to be due to itch-provoked scratch; but there was some increase in leg movement which is associated with restlessness (1). Thus PUVA mostly caused itch and some restlessness, whereas dithranol caused little of either. It appears that the 'irritation' or 'burn' which is a common complication of dithranol treatment leads to restlessness and not itch. The mechanism of the itch provoked by PUVA is not clear, particularly as it tended to occur after several treatments and appeared to decrease despite continued treatment. Whether PUVA-induced itch is due to production of pruritogen or a lowering of itch threshold is not known. An observation of practical importance is that patients in whom scratching was provoked by treatment are those who had the highest pre-treatment levels. It may therefore be that patients with considerable pruritus before treatment should be treated simultaneously with a drug such as nitrazepam (4) and a corticosteroid concomitantly with the first few exposures to UVA.

ACKNOWLEDGEMENTS

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Clinical Trial of a Potent Non-halogenated Topical Steroid, BUDESONIDE

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Abstract. In a double-blind, randomized multi-centre study, 116 patients with psoriasis have been treated for 1–3 weeks with budesonide ointment (Preferid®, Draco/Tika; a subsidiary of AB ASTRA), a new non-halogenated topical steroid. In a series of 11 patients a 0.025% budesonide ointment was significantly superior to placebo. In a second series, of 54 patients, a 0.025% budesonide ointment was significantly superior to 0.025% fluocinolone acetonide ointment (Synalar®, ICI). In a third series, of 51 patients, a 0.010% budesonide ointment was compared with 0.025% fluocinolone acetonide ointment. No statistically significant difference between these two preparations was found to exist. No adverse reactions were observed.

Key words: Budesonide; Fluocinolone acetonide; Placebo; Clinical trial; Psoriasis; Topical steroid

New topical steroids with ever-increasing potency continue to be produced. Unfortunately, both the number and severity of local as well as systemic side effects have increased in proportion to the potency, thus limiting the usefulness of the most potent preparations (1, 4, 5).

Halogenation of the steroid molecule has been considered necessary in order to attain the topical anti-inflammatory effect of potent corticosteroids.

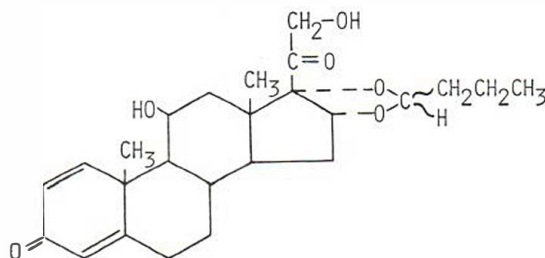


Fig. 1. 16 α ,17 α -Butyridenedioxy-11 β ,21-dihydroxypregn-1,4-diene-3,20-dione (budesonide, INN).