

location and its extreme tenderness to pressure. A histological examination may support the diagnosis, but is performed mainly to exclude malignancy. Apart from one case of squamous cell carcinoma misdiagnosed as CNCH, no malignant tumours arose at the site of the CNCH in our series of 142 patients.

In the literature it is usually stated that CNCH is far more common in men than in women. By reviewing the existing literature, Duncan (2) found in 1937 that the male cases outnumbered the female cases by 10 to 1. The men still constitute 68 per cent of our material, but a change in the sex distribution seems to have taken place during the last four decades. Although sun exposure of women is, no doubt, increasing, our interviews still show more outdoor activity both during work and at leisure among the male patients, which may to some degree explain the sex difference in incidence.

It has earlier been claimed that persistent pressure on the outer ear is of pathogenetic significance. Our data support this assumption, as the condition was more frequently recorded on the right side—the preferred resting side during sleep. A few patients mentioned pressure from certain headgear or a hearing aid as the cause of their trouble. In 2 young women the CNCH was situated on a very prominent anthelix, which could be ascribed to a corrective operation for aures alatae performed during childhood.

The treatment currently recommended is excision of an ellipse of skin and subjacent cartilage. Newcomer (3) re-examined 58 patients treated this way and found 18 recurrences appearing from 2 months to 3 years after the operation (31%). Bard (1) treated 19 patients by shave biopsy of the lesion and subsequent curettage and electrodesiccation. 21% of the lesions reappeared 4 months to 7 years after treatment. In our department this condition has been treated by routine, with curettage and electrocauterization only. In the few cases where X-irradiation was tried as the first procedure of treatment there was no recovery.

Our recurrence rate is comparable to that of the more elaborate surgical techniques mentioned above. In experienced hands our method is faster and less mutilating. The most critical point in this procedure is, in our experience, the thorough cauterization of all chondritic tissue left after the curettage. Some weeks after the procedure the surroundings may still be tender, swollen and red, but this

reactive alteration subsides gradually. From a cosmetic point of view this simple technique is very satisfactory.

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Short-wave Ultraviolet Light (UVB) Treatment of Allergic Contact Dermatitis of the Hands

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Abstract. 7 out of 10 patients with long-standing allergic contact dermatitis of their hands were successfully treated with short-wave ultraviolet light (UVB) and the contact dermatitis healed completely. To maintain this result they had to receive UVB therapy regularly once a week. The last 3 patients also showed improvement, but they had periods with vesiculation during the treatment. UVB treatment seems to be a valuable supplement for the treatment of contact dermatitis.

Key words: Short-wave ultraviolet light (UVB) treatment; Allergic contact dermatitis

During recent years many reports have been published on the influence of ultraviolet radiation on the immune systems. Haniszko and Suskind showed in 1963 that ultraviolet light at 280–320 nm inhibits cutaneous sensitization in guinea pigs (5). It has also been shown that the contact allergic reaction is alleviated when guinea pigs are exposed to UVB radiation during the period of sensitization

Table 1. *Patient data and results*

| Sex, age (years) | Duration of eczema (years) | Positive patch tests | | Total dose of UVB (J) | Duration of treatment (months) | Results |
|------------------|----------------------------|---|----------------------|-----------------------|--------------------------------|----------|
| | | Allergen | Results ^a | | | |
| ♀, 52 | 8 | Cobalt chloride 1% Nickel sulfate 5% | ++ ++ | 39 | 7 | Healed |
| ♀, 51 | 4 | Nickel sulfate 5% | +++ | 26.4 | 7 | Healed |
| ♀, 25 | 9 | Cobalt chloride 1% Nickel sulfate 5% | ++ +++ | 4.2 | 3 | Improved |
| ♀, 46 | 2 | Nickel sulfate 5% | ++ | 12.8 | 5 | Improved |
| ♀, 36 | 5 | Nickel sulfate 5% | +++ | 23.1 | 5 | Healed |
| ♀, 35 | 2 | Cobalt chloride 1% Nickel sulfate 5% | + +++ | 12.9 | 5 | Healed |
| ♀, 46 | 40 | Nickel sulfate 5% | +++ | 38.9 | 5 | Healed |
| ♀, 79 | 5 | Cobalt chloride 1% Nickel sulfate 5% Thiuram-mix 1% | + ++ ++ | 5.6 | 4 | Improved |
| ♀, 61 | 15 | Potassium dichromate 0.5% Carba-mix 1% Thiuram-mix 1% | +++ ++ ++ | 13.4 | 5 | Healed |
| ♂, 37 | 1 | Formalin 2% | ++ | 8.0 | 4 | Healed |
| Mean 46 | 9 | | | 18.4 | 5 | |

^a Patch tests were read at 48 hours and the grading is according to the recommendation of the ICDRG.

(7). We too have previously found that UVB radiation diminishes the contact allergic reaction in previously sensitized guinea pigs (2).

In 1979 Thorvaldsen & Volden (10) reported a decrease in contact allergic reactions in their PUVA-treated patients, and recently Bruynzeel et al., described the beneficial effect of PUVA on allergic contact dermatitis of the hands (3).

Based on the results of UVB on the immune system, we considered it of interest to try out UVB treatment of patients suffering from a long-standing and rather therapy resistant allergic contact dermatitis of the hands. To the best of our knowledge, this method has not been published previously.

MATERIALS AND METHODS

10 patients (9 women, 1 man) with hand eczema and proven contact allergy were selected for UVB treatment. The contact allergy was proven by standard patch tests performed according to the recommendations of the ICDRG (Table 1). The duration of the hand eczema of these patients ranged between 1 and 40 years (mean, 9 years). Two of the patients had dyshidrotic-type eczema. According to their medical histories none of the patients were atopics. Previously they had been treated with topical corticosteroids and tar but this had not been

successful. The last 2 weeks before UVB radiation was started, they did not get any sort of treatment except emollients which they continued to use during the period of light therapy.

The UVB irradiation was provided by 13 Sylvania F75/85W/UV21 fluorescent tubes. This light source gives a continuous spectrum at 280–365 nm with a peak at 310–315 nm. The irradiance was 1 mW/cm² at a distance of 30 cm. The minimal erythema dose (MED) was 80 mJ.

As we have shown previously in guinea pigs the most pronounced reduction in the delayed hypersensitivity occurred at 1–3 J/cm² (2), we started to treat the patients with 0.2 J/cm² twice a week. Gradually the dosage was increased to 1.2 J/cm², which corresponds to 20 min of radiation. This dose was used as maintenance treatment once a week. The total dosage of UVB treatment varied from 4.2 J/cm² to 38.9 J/cm², with a mean value of 18.4 J/cm² (Table 1).

RESULTS

The results are summarized in Table 1. The hand eczema of 7 patients cleared completely during the treatment period. One of these 7 had an eczema of the dyshidrotic type. The last 3 patients also improved but they had short periods with slight vesiculation and pruritus during the treatment. Of these 3 one had a dyshidrotic eczema.

DISCUSSION

This study demonstrates a promising effect of short-wave ultraviolet light (UVB) on allergic contact dermatitis of the hands. Two out of the 3 patients where the eczema did not clear completely were treated for a relatively short period of time. They stopped treatment for personal reasons.

Two of the patients had a dyshidrotic-type eczema and one of these healed, while the other showed improvement in the contact dermatitis. Christensen (4) recently drew attention to the poor prognosis of dyshidrotic-type eczema of the hands in relation to nickel and the therapeutic difficulties.

In our study of the effect of UVB on delayed hypersensitivity in the guinea pig we showed that the suppression of cell-mediated reactivity was confined to the UV-exposed skin (2). Thus the effect of UVB is mainly local, and we have therefore not repeated the patch testing after the UVB treatment.

The mechanisms of action of UVB on the allergic contact dermatitis are not completely known. UV light has been shown to affect immunocompetent cells in different ways. Langerhans cells are important in the afferent phase of the immune response by presenting the antigen to immunocompetent lymphocytes. Small doses of UVB damage the surface markers of these cells (1). In addition, epidermal cells have an impaired antigen presenting function in UVB-irradiated skin (9). The inflammatory cells in tissue sections of allergic contact dermatitis consist of about 75% T-lymphocytes (8). The number of effector cells is regulated by suppressor T-lymphocytes which play a central role in controlling the immune response. T-lymphocytes are sensitive to UV-light (6) which affects both their functional capacity and their viability. All this indicates that UVB radiation reduces the number of effector cells both directly and indirectly through suppressor T-lymphocytes and thereby alleviates the allergic reaction.

Our conclusion is that UVB may be tried as a supplementary treatment for patients with longstanding allergic contact dermatitis where topical therapy has proved unsuccessful.

ADDENDUM

Three months after these results were recorded and summarized (Table I), 5 of the patients were treated once every second week with a UVB dose of 1.2 J/cm². There have been no relapses during this period of time.

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Treatment of the Ichthyosis of the Sjögren-Larsson Syndrome with Etretinate (Tigason®)

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Abstract. The ichthyosis of seven patients with the Sjögren-Larsson syndrome was treated with an aromatic retinoid, etretinate, during six months. Very good results were registered in six of the patients measured both as clinical improvement and as reduction in quantity of emollients needed. No unexpected side effects were noted.

Key words: Etretinate; Congenital ichthyosis; Sjögren-Larsson syndrome