The lack of leu-2a$^+$ cells in the region of active blister formation is against a role of Cytotoxic T cells in the injury of the BM-zone. The prompt response to topical steroids in the present cases of LBP has previously been described by others (3) and resembles the response to steroids in allergic eczema. This might possibly represent another argument in favour of an important role in localized bullous pemphigoid (LBP) of T cell mediated immunity in terms of antigen processing and tissue injury.

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Acitretin Monotherapy in Acrodermatitis Continua Hallopeau

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In a patient affected with acrodermatitis continua Hallopeau, acitretin (Ro 10-1670) monotherapy resulted in a complete clearance of pustulation at a dosage of 45 mg per day. At this dosage the leukotriene B_4-induced intraepidermal accumulation of polymorphonuclear leukocytes was markedly inhibited. ***Key words: Polymorphonuclear leukocytes; Chemotactic response.***

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Successful treatment with the aromatic retinoid etretinate in Acrodermatitis continua Hallopeau (ACH) has been reported in a few cases (1, 2). In this communication we describe the clinical results of acitretin (Ro 10-1670) in a case of ACH. In this patient the influence of acitretin therapy on the chemotactic response of polymorphonuclear leukocytes (PMN's) was assessed in an in vivo assay.

CASE REPORT

A 69-year-old white man presented with a 2-year history of progressing redness, scaling, and pustulation of his fingertips. The second and third finger of the right hand as well as the second finger of the left hand were involved. At first he had noticed a roughening of the nail plates and subsequently complete onycholysis occurred. Due to extreme tenderness and itching of the skin lesions the patient was severely handi-

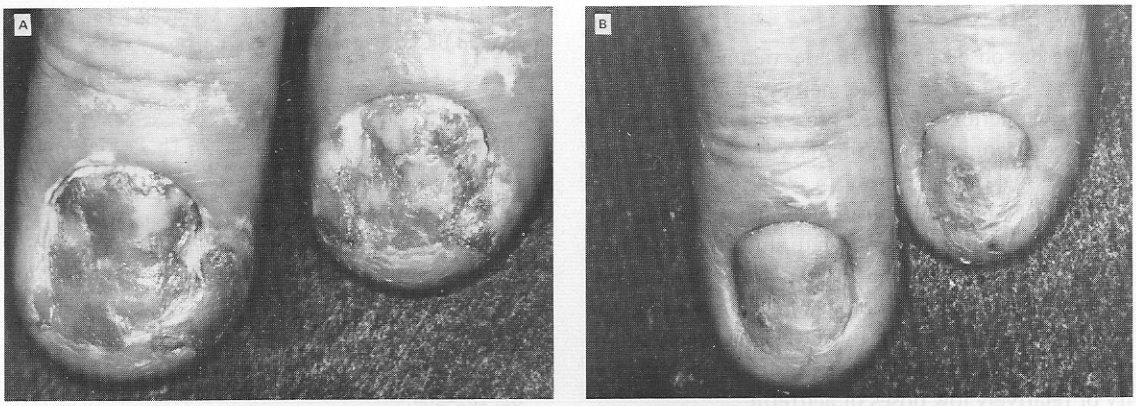

Fig. 1. Acrodermatitis continua Hallopeau: (*a*) before treatment, (*b*) after 4 months of treatment with acitretin.

capped. The family history was non-contributory. Several types of treatment, such as oral sulfones and topical corticosteroids, had been tried, but without any success.

Physical examination showed severe erythema, scaling and pustulation of the distal parts of the affected fingers. The nail plates were absent and the nail beds were covered with pustules (Fig. 1 *a*). There was no involvement of the interphalangeal joints. Further inspection of the skin did not show any psoriatic lesions. The mucous membranes were unaffected.

Blood examination before initiation of acitretin therapy showed no abnormalities, except for a slight elevation of transaminases, presumably attributable to an increased alcohol intake during the weeks before. Abstinence from alcohol was strongly advised.

At monthly intervals the clinical responses were monitored using a 4-point scale for erythema, scaling and pustulation and routine blood examinations were repeated.

During the first 3 months the dosage was 35 mg per day (= 0.5 mg/kg). At the end of this period pustulation had disappeared almost completely, whereas erythema and scaling were less pronounced, but still present. Side effects were limited to a mild cheilitis. In order to further improve the response we increased the dosage to 45 mg per day. This resulted in total disappearance of pustulation and a further decrease in erythema and scaling during the following month (Fig. 1 *b*).

On this dosage, this excellent result could be maintained up to the end of the treatment period (6 months). Apart from the mild cheilitis, no other side effcts were observed and the initially increased transaminases normalized completely during the therapy. Within 2 weeks of discontinuation of acitretin therapy, the patient experienced a recurrence of pustulation. Etretinate was now prescribed, starting with 50 mg per day. Subsequently the dosage had to be increased to 75 mg per day to achieve a similar response, as shown in Fig. 1 *b*.

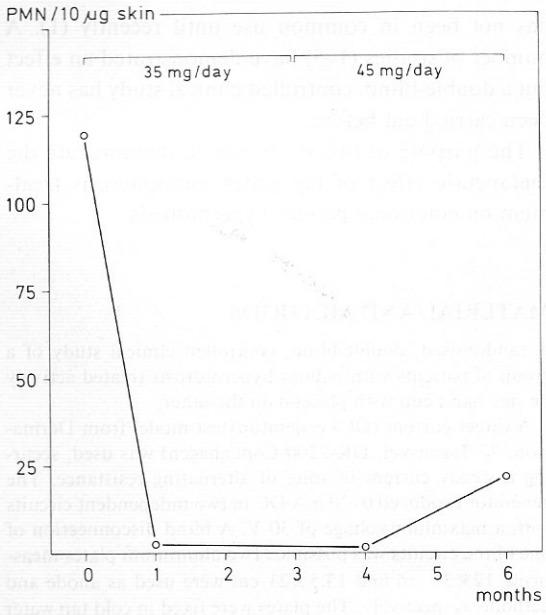

Fig. 2. Intra-epidermal accumulation of PMN following application of 10 ng LTB_4 before and during treatment with acitretin.

Effect on intra-epidermal accumulation of PMNs

The intra-epidermal accumulation of PMN following topical application of leukotriene B_4 (LTB_4) was used as an in vivo model for pustule formation (3, 4). In this patient the effect of acitretin therapy on this phenomenon was quantified. Before treatment with acitretin and subsequently after 1, 4, and 6 months of treatment, aliquots of 10 ng LTB_4 in ethanol were applied on the clinically uninvolved dorsal skin through glass cylinders 5.5 mm in diameter. The ethanol was evaporated with a stream of nitrogen. Razor blade biopsies of LTB_4-treated areas, containing mostly epidermis, were taken 24 h after these applications. In these biopsies, PMN were quantified using the marker enzyme elastase (5).

The LTB_4-induced PMN accumulations are shown in Fig. 2. It can be seen that a profound inhibition occurred after 1 month of treatment with acitretin (35 mg per day). Increasing the dosage to 45 mg per day did not achieve further inhibition.

DISCUSSION

The present observation indicates that acitretin monotherapy is effective in the management of ACH. A further reduction of the dosage needed might be achieved by combining retinoids with classical topical antipsoriatics.

The LTB_4-induced intra-epidermal accumulation of PMN is a practical approach to study the migration of PMN through the skin. Already after 1 month of acitretin treatment at a dosage of 35 mg per day, the migration of these cells proved to be markedly inhibited. This observation further illustrates the effectivity of relatively low doses of acitretin.

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Treatment of Hyperhidrosis Manuum by Tap Water Iontophoresis

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In a randomised, double-blind, controlled clinical trial of the effect of treatment with tap water iontophoresis, 11 patients with palmar hyperhidrosis were treated actively on one hand and with placebo on the other. The patients' sweat production was 100 % higher (median) than measured in control subjects of the same age and sex. Prior to iontophoresis, the patient's sweat production was the same on both hands but after treatment it was reduced significantly on the treated hand ($p < 0.01$) compared with the sweat production prior to treatment as well as with that of the untreated side. An 81 % reduction (median) in sweating was found in 6 patients receiving maintenance treatment every second week. *Key words: Antiperspirant; Sweating.*

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Emotional hyperhidrosis affects axillae, palms and soles. Tap water iontophoresis treatment of this condition has been known for more than fifty years but has not been in common use until recently (1). A number of studies (1–5) have demonstrated an effect but a double-blind, controlled clinical study has never been carried out before.

The purpose of this study was to demonstrate the therapeutic effect of tap water iontophoresis treatment on emotional palmar hyperhidrosis.

MATERIAL AND METHODS

A randomised, double-blind, controlled clinical study of a group of patients with palmar hyperhidrosis treated actively on one hand and with placebo on the other.

A direct current (DC) generator (test model from Dermatron, 77 Tagensvej, DK-2200 Copenhagen) was used, securing a steady current in spite of alternating resistance. The generator produced 0–20 mA DC in two independent circuits with a maximum voltage of 30 V. A blind disconnection of one of the circuits was possible. Two aluminium plates measuring 12×31 cm and 13.5×21 cm were used as anode and cathode, respectively. The plates were fixed in cold tap water baths (6) and were covered with a plastic grill to protect the skin from burns. The palms were placed at the anodes and the soles at the cathodes so that the sole and palm of the same