Many other agents have been used with varying results. The most successful have been the alkylating agetns Chlorambucil and Melphalan. Several patients have been treated and have responded (5). However, these agents are best reserved for patients with disabling diseases and who have not responded to other treatments because of poossible side-effects.

Other agents have not been a successful. Systemic glucocorticosteroids (6) have cleared the lesions but they returned quickly, when treatment was stopped. Chlorpropramide and carbohydrate restriction have not been beneficial (7). Potassium iodide was used in four patients with some improvement but none of them cleared even after twelve weeks of therapy (8). Niacinamide had to be taken for eight months before one patient cleared but the lesions returned when the drug was stopped (9). Claims for improvements with bismuth (10) or antimalarials (11) have not been confirmed (10). Gold injections (12) and antihistamines (10) have not influenced the course of the disease and X-ray therapy has had no effect or produced only temporary improvement (13).

These cases demonstrate that, if treatment is indicated for generalized GA, dapsone should be considered before other agents.

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Psoriasis Treatment with Betamethasone Dipropionate Using Short-Term Application and Short-Term Occlusion

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Jæger L. Psoriasis treatment with betamethasone dipropionate using short-term application and short-term occlusion. Acta Derm Venereol (Stockh) 1986; 66: 84–87.

High rates of penetration and of transepidermal water loss in psoriatic lesions allow reduction in the periods of application and occlusion, respectively, in corticoid treatment.

In 11 patients application for 3–5 min combined with occlusion for 20 min was as effective as classical long-term corticoid treatment. On the other hand it was demonstrated by means of the vasoconstriction test that both reduction in time of application and occlusion to these periods led to a reduction in the amount of steroid absorbed by healthy skin. Thus "Short contact therapy" would probably minimize the steroid absorption by the uninvolved skin surrounding the psoriatic lesions, thereby reducing the risk of side-effects in treatment with potent corticoids. *Key words: Steroids; Atrophy; Skin absorption; Short contact therapy.* (Received May 28, 1985.)

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Rapid penetration in a psoriasis plaque allows removal of dithranol after application for 10–20 min (1, 2, 3). Differences in penetration rate (4) and in transepidermal water loss (5) between psoriatic and the surrounding healthy skin might make short-term application combined with short-term occlusion a therapeutic alternative with less side-effects with potent corticoids.

MATERIAL AND METHODS

Eleven patients with histopathologically verified psoriasis and plaques localized symmetrically on the extremities were included.

One lesion received betamethasone dipropionate 0.05 % in dilute isopropanol with added Carbopol No. 934 (Spir. Diproderm, Schering Corp.); the contralateral lesion received the vehicle without steroid. The investigation was double-blind. The choice of treatment for the lesions was randomized.

The application was made once a day. The liquid was spread on the plaques by gentle movements. As soon as the vehicle evaporated (3–5 min), the lesion was cleansed by applying and drying off the vehicle 10 times. When the vehicle had evaporated, the area was occluded for 20 min with polythene foil and elastic bandage.

The lesions were photographed weekly and evaluated according to a 1 to 5 scale, where 1 indicates unchanged lesions and 5 complete healing.

In order to examine the efficacy of the cleansing procedure and the significance of the reduction in time of application and occlusion, vasoconstriction tests on the volar aspect of the forearm (6) were performed in healthy volunteers using the same techniques and materials. Short-term (3–5 min) and long-term (5 hours) application were each combined with short-term (20 min) and long-term (5 hours) occlusion, and the evaluations were made after 5 hours.

RESULTS

Six of the patients showed total healing, and five partial healing of the corticoid-treated plaques after 2–7 weeks (Table I). Plaques treated with the vehicle alone were largely unchanged (Table I).

Blanching at the vasoconstriction tests was only seen after long-term application combined with long-term occlusion.

DISCUSSION

The vasoconstriction tests showed that the cleansing method was effective, and that both the reduction in the period of application and occlusion resulted in a reduction in the amount of steroid absorbed in the healthy skin.

There are several possible explanations why Short contact therapy was as effective as classical long-term corticoid treatment (7):

1. A high rate of penetration compensates for the reduction of the period of application.
2. Only a small proportion of the corticoid is absorbed, but sufficient to produce healing.

Table I. *Comparison of the psoriatic lesions treated with the corticoid with those treated with the vehicle alone*

Patient	Duration of treatment in days 0	7	14	21	28	35	42	49	Corticoid (c) or vehicle alone (v)
1	1	2	4	4	4	5			c
	1	1	1	1	1	1			v
2	1	3	4	5					c
	1	1	1	1					v
3	1	2	4						c
	1	2	2						v
4	1	2	2	3	3	4	4	5	c
	1	1	1	1	1	1	2	2	v
5	1	2	3	3	4	4	5		c
	1	1	1	1	1	1	1		v
6	1	2	2		2	2	3		c
	1	1	1		1	1	1		v
7	1	1	2	3	4	5			c
	1	1	1	1	1	1			v
8	1	2	2	3	4	4	4		c
	1	1	1	1	2	2	2		v
9	1	1	1	2	3	4			c
	1	1	1	1	1	2			v
10	1	4	5						c
	1	1	1						v
11	1	2	2	3					c
	1	1	1	1					v

3. Some of the steroid is not removed by cleansing, because skin sebum functions as a reservoir of steroid.

4. The evaporation of the vehicle increases the absorption.

The vasoconstriction tests make the possibilities 3 and 4 unlikely. Short contact therapy more likely reduces the absorption by the uninvolved skin around the lesions and thus diminishes the local and systemic side-effects (8).

The principle involved in Short contact therapy could in practice be utilized by the following technique:

1. Application of a cream with a potent corticoid.
2. Immediately after, wiping off the cream with a dry tissue paper directing it from the edge of the lesion to the centre.
3. Occlusion for 20 min.
4. Cleansing with soap and water to avoid contamination of the healthy skin.

An alternative is short-term application of an occlusive ointment.

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Palmoplantar Eruption Associated with Etretinate Therapy

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David M, Ginzburg A, Hodak E, Feuerman EJ. Palmoplantar eruption associated with etretinate therapy. Acta Derm Venereol (Stockh) 1986; 66: 87–89.

Five psoriatic patients developed papular lesions of palms and soles, shortly after beginning treatment with etretinate. Histological examination in two cases was insignificant. The lesions disappeared without tapering the dose of etretinate. The fact that lesions appeared and subsided within a short period may explain why this unusual adverse reaction of etretinate therapy has not been reported previously. *Key words: Psoriasis; Papules; Pustules.* (Received June 3, 1985.)

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The clinical side effects from systemic use of oral retinoids are recognized and well documented in the literature. One of the common side effects is desquamation of palms and soles. We hereby report an unusual adverse reaction, observed in five psoriatic patients under treatment with etretinate as sole medication, which manifested itself as papular and pustular lesions of palms and soles. These were 5 of 32 patients receiving etretinate over the last two years.

PATIENTS

The patients were hospitalized for treatment with etretinate. The data regarding sex, age and duration of psoriasis are listed in Table I. All the patients were treated with an initial dose of 1 mg/kg weight/day. In all of them the palms and soles were uninvolved prior to treatment. Several days after starting treatment with etretinate they developed skin lesions over palms and soles without itching (see Table I). The lesions were red discrete papules 3 to 4 mm in diameter, with small scales at their top. In patients 1 and 2 there were also minute pustules. Bacterial and fungal smears and cultures from