

## Treatment of Psoriasis and Other Dermatoses with a Single Application of a Corticosteroid Left Under a Hydrocolloid Occlusive Dressing for One Week

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Lotions of five different corticosteroids were applied on 3×4 cm areas of large infiltrated chronic psoriatic plaque in eight patients, and left occluded with a hydrocolloid dressing (Actiderm®) for one week. Areas treated with clobetasol, betamethasone and triamcinolone were clinically healed within one week in four patients, but slight residual erythema was observed in the other four. Hydrocortisone-treated areas showed better improvement than the non-steroid-treated control area, where infiltration and erythema remained unchanged. In 44 patients with psoriasis, lichen planus, chronic lichenified eczema, discoid lupus erythematosus and necrobiosis lipoidica, treatment with betamethasone applied 1–3 times under Actiderm once a week healed the lesions. The skin-coloured Actiderm is easy to apply and wear and does not loosen when taking a shower or hot bath.

(Accepted January 20, 1989.)

Acta Derm Venereol (Stockh) 1989; 69: 355–357.

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Occlusion of a potent corticosteroid under plastic-like Saran wrap has been used for the treatment of psoriasis for a number of years, but is nowadays uncommon. The dressings had to be changed daily and the plastic was often found unpleasant. The introduction of a rather thin, skin-coloured hydrocolloid occlusive dressing (Actiderm®) which can be left on the skin for a week and even when taking a daily bath or shower has improved the acceptability of occlusive therapy. Actiderm is a hydrocolloid like Duoderm® but thinner. It has a moisture-impermeable polyurethane exterior and a hydrocolloid inner layer of gelatin, pectin, carboxymethylcellulose and polyisobutylene that adheres to the skin. Occlusion with Actiderm alone has been shown to improve psoriasis (1, 2). In a series of patients we have applied corticosteroids in alcoholic solution to psoriatic plaques and some other dermatoses and left the skin occluded with Actiderm for a week. The treatment was well tolerated and healing

was seen after one to three treatments. The results were compared with those of occlusion alone and of non-occluded skin.

### MATERIAL AND METHODS

#### Preparations applied

Clobetasol propionate (Dermovat® lotion, Glaxo), betamethasone valerate 0.1% (Betnovate® lotion, Glaxo), betamethasone dipropionate 0.05% (Diproderm® lotion, Schering Corp.), triamcinolone 0.1% (Kenacort® lotion, Squibb) and hydrocortisone 1% dissolved in 99% ethyl alcohol.

#### Procedure

In eight patients the corticosteroids and an alcohol control were applied with a cotton swab on the same psoriatic plaque on 3×4 cm areas, leaving a 5 mm untreated zone between each steroid. The estimated use of the solution was 1 ml/dm<sup>2</sup>. The solution was allowed to dry for 1–2 minutes before it was covered with an Actiderm dermatological patch (ConvaTec, Squibb, USA). All other patients were treated only with 0.1% betamethasone valerate under Actiderm, which was left on for one week. During this time the patients were allowed to take showers or baths as usual. After one week the Actiderm was removed, and the area was washed with 70% ethanol and inspected. The degrees of scaling, erythema and infiltration were noted. As a rule, the treatment was repeated for another week and in a few cases for 3 weeks. The patients received no systemic treatment. In psoriasis other areas were treated with UVB irradiation and/or anthralin. None of the patients had used any corticosteroids in the last month, but only vaseline or emollients.

#### Patients

**Psoriasis:** Twenty-three patients (ages 16–72 years) with chronic plaque lesions on the arms, legs and trunk, and six patients with lesions on the hands and/or feet.

**Eczema and neurodermatitis:** Eight patients (ages 25–76 years) with longstanding chronic lichenified plaques on the legs and arms that had not or only poorly responded to topical corticosteroids.

**Lichen planus:** Three patients (ages 47–62 years) with localized lesions on the arms and legs.

**Discoid lupus erythematosus (LE):** Two patients (36 and 62 years old) with longstanding infiltrated lesions on the face.

**Necrobiosis lipoidica:** Two patients (22 and 34 years old) who had had lesions on the legs for over a year. Resistant to topical corticosteroid ointments.