

〈原 著〉

副腎皮質ホルモン外用剤の局所への影響について
— Methylprednisolone aceponate 外用剤の皮膚萎縮作用を中心に —

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Review on Adverse Effects of Topical Corticosteroids on the Human Skin
— Evaluation of Atrophogenic Potency of Methylprednisolone Aceponate
and Other Topical Corticosteroids by Video Microscopic System —

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Abstract

A new glucocorticoid, methylprednisolone aceponate (MPA), has been shown in patients to have good topical antiinflammatory activity and a weak effect on hypothalamic-pituitary-adrenal function.

In order to know the atrophogenic potency of MPA, ointments of MPA and various other known topical corticosteroids were daily applied on the forearm for 6 weeks under occlusion. Before, during and after the treatment, lesions were monitored visually and by means of video-microscopic method and Suzuki's universal micro-printing (SUMP) method.

The whole skin thickness was measured with a Harpenden skinfold caliper. Results were compared with each other.

All results evaluated by different methods were well correlated in each compound. Five corticosteroids were evaluated by all methods are listed in terms of increasing severity of the atrophy as follows (ointment): 0.1% hydrocortisone butyrate, 0.1% MPA, 0.12% betamethasone valerate, 0.064% betamethasone dipropionate, and 0.05% clobetasol propionate. MPA was thought to be a good glucocorticoid in the topical use which has a strong anti-inflammatory effect with weak atrophogenic activity.

In addition, we would like to emphasize that the video microscopic method is very useful to evaluate the atrophogenic potency of corticosteroids. Which is non-invasive, more reliable and safer than other methods previously reported.

Key words: corticosteroid, cutaneous atrophy, methylprednisolone aceponate, atrophogenic potency, videomicroscopic system.