

LETTERS TO THE EDITOR

Reduced Skin Histidine Levels and Its Topical Use in Psoriasis

Juhlin and his colleagues' findings of a low histidine level (1) and their proposed explanation of a shift to increased histamine production are of particular interest, as we have been assessing the response to topical histidine in psoriasis.

In animal studies histidine has been shown to quench singlet oxygen (2). It was also anticipated that an excess of histidine, by leading to substrate flooding, might reduce histamine formation. Furthermore, it has been suggested that the mammalian skin is unique in possessing an active metabolic pathway from histidine to urocanic acid without further degradation (3), thus providing a natural photoscreen. Initially, 5% *L*-histidine (B.D.H.) was used but it produced marked irritation. However, in an open study 2% *L*-histidine with 1% hydrocortisone resulted in a response varying from negligible to almost complete clearance. The base adopted was either Aqueous Cream B.P. or white soft paraffin depending on the sites affected. All the involved areas were treated twice daily with the active preparation and no irritation was noted. It is of interest that Juhlin had treated 10 patients with 1% *L*-histidine for three weeks with little benefit (4). The heterogeneity of the disease with its fluctuant course, however, requires assessment of a large number of patients (eventually to be subject to detailed analysis). In sixty patients with psoriasis, hitherto studied, the minimal time for clearance proved to be six weeks in three identifiable responsive groups: those with a photo-sensitivity reaction pattern; patients with mild involvement on extensor surfaces and lastly, those whose psoriasis had appeared in relation to an underlying nickel sensitivity, possibly as a Köbner's reaction. Since nickel is mainly transported histidine-bound in the blood, topical applications of the same formulation of histidine (for its possible chelating action) resolved nickel-induced dermatitis in nine patch-test positive patients, who had also minimised direct contact with this element.

Although our observations are based on uncontrolled studies, the absence of any adverse side-effects over a nine months' period and the response elicited, prompts us to suggest that the topical use of histidine merits critical assessment.

REFERENCES

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Received December 8, 1986

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