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HL-A Histocompatibility Antigens and Cutaneous Reactions to Practolol

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The occurrence of psoriasiform cutaneous eruptions in patients treated with practolol, as first observed by Felix et al. (1), has become a well-known side effect and for general use the drug has now been withdrawn from the market. The mechanisms underlying the outbreak of the psoriasiform eruptions remain unknown, but it seems conceivable that beta-blockade per se in these patients might lead to a reduced level of epidermal cyclic AMP as seen in psoriatic epidermal tissue (4).

Psoriasis vulgaris is known to occur about five

Table I.

Initials	Sex	Age	HL-A type
E. W.-M.	♀	72	1, 2, 13, 8
E. H. P.	♀	66	1, 2, 8, 17
T. H. O.	♀	60	1, 9, 12, 5, 315
H. K.	♀	72	2, W26, 12, 22, AJ
B. K.	♀	44	1, 2, W15, 8, UPS
G. J.	♀	50	3, 9, 7
E. H.	♀	70	9, 11, W5, 8, 315
O. G.	♀	61	9, W32, 12, W15, AJ, 315

times more often in individuals possessing HL-A 13 and/or 17 than in those lacking these antigens. However, it is entirely unknown how these antigens confer the increased risk of psoriasis. In order to investigate the possibility that HL-A 13 and 17 might operate through a mechanism(s) involving cyclic AMP, we have HL-A typed 8 patients with practolol-induced cutaneous eruptions. None of these suffered from psoriasis or had any family history of psoriasis. Five of the 8 patients presented with a distinctive psoriasiform cutaneous eruption. Further clinical details have been described previously (2). The HL-A phenotypes of the patients are given in Table I. The HL-A 17 antigen was found in one patient and HL-A 13 in another. Both of these 2 patients presented with a psoriasiform cutaneous eruption. HL-A 13 and/or 17 were not present in the remaining 6 patients.

In psoriasis vulgaris about 50% of the patients carry either HL-A 13 or HL-A 17 as compared with only 11.7% of 1967 control persons. The frequency (25%) of these antigens in the present series of patients is far from significantly different from that in controls. This is true even when considering only the 5 patients with definite psoriasiform eruptions. Nevertheless, 2 (40%) of these were carrying the psoriasis-associated HL-A antigens, and thus a study of a larger group of patients would seem warranted in order to confirm or disprove the possible association. If confirmed, it may support the concept that HL-A can interfere with the receptors for ligands on the cell surface (3).

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