

ABSTRACT

T Cell Receptor V β Gene Expression in Psoriasis Vulgaris

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The identification of activated T cells in psoriatic skin lesions indicates that these cells are critical to the pathogenesis of psoriasis vulgaris. Using the polymerase chain reaction and C β -specific hybridization, we have analysed whether infiltrating lymphocytes – in comparison with peripheral blood – are characterized by a restricted set of T cell receptor V β genes. When we compared the relative expression of 20 V β gene families we found an overexpression of V β 2, -6, -7, and -13.1 in the majority of biopsies and in paired blood lymphocytes that have been tested so far. Of these, V β 6 was most prominent in skin biopsies, as compared with the degree of expression of the other V β genes. Although V β 6 was also prominently expressed in

blood T cells, it was usually paired with other overexpressed V β families.

Our preliminary results show a consistent pattern of highly expressed T cell receptor V β gene families in lesional skin and blood lymphocytes of psoriatic patients. The dominant overexpression of V β 6 in psoriatic skin might be due to a specific local stimulation of particular T cell clones. Whether skin autoantigens or microbial products are the inducers of this stimulation remains to be determined.

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