

TCR V beta gene analysis in folliculotropic mycosis fungoides does not show antigen specific restriction

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Abstract

Folliculotropic mycosis fungoides (FMF) is a variant of cutaneous T cell lymphoma characterized by predominant infiltration of hair follicles by lymphoma cells. Folliculotropism may suggest that antigen-stimulation by particular antigens present in the hair follicle may contribute to the pathogenesis of FMF. To test this hypothesis, we identified the rearranged T-cell receptor (TCR) V beta genes in a series of 20 cases (21 samples) with clinically and histologically well-characterized FMF as well as 10 control cases (10 samples) of conventional mycosis fungoides (MF)¹. The analysis was performed by using a multiplex PCR and BIOMED-2 primers³, followed by sequencing of the monoclonal PCR products. In 3 FMF patients different T-cell clones or additional to a persistent clonal T-cell rearrangements were found. In FMF no restriction of a specific TCR V beta gene family was demonstrated. Similarly, conventional MF showed non-restricted TCR V beta gene rearrangements, as has been demonstrated before. Our results indicate that FMF, as has been demonstrated for MF before, does not arise from TCR V beta-restricted T cells, including NKT cells. Whether antigen-stimulation plays a role in the pathogenesis of FMF is still an open question, but our results do not indicate the involvement of restricted antigens.

Biography

Panagiota Mantaka has been working as a specialist in dermatology and venerology since January 2009 working since then as a clinician (50%) and research fellow (50%) by performing her PhD thesis in the field of primary cutaneous lymphomas. She has already published some papers in the field of folliculotropic mycosis fungoides and presenting successfully in several EORTC/ISCL meetings (2010, 2012 and 2013) recently and in the past.