



MEETING ABSTRACT

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Gene expression and glycan profiling of CD4+T cells in HAM/TSP

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Gene expression profile (transcriptome) and glycan profile (glycome) of HTLV-1-infected CD4+T cells may reflect the pathologic cellular mechanism and intercellular recognition, respectively in HAM/TSP though these profiles are still not obtained. To identify responsible cellular genes and relevant glycans of HAM/TSP, we performed experiments with microarray on RNAs and and lectin array on proteins extracted from CD4+Tcells from each four subjects of three groups including HAM/TSP, asymptomatic carriers (AC), and HTLV-1 negative controls (NC). In transcriptome analysis, transcripts of 177 genes were found up-regulated only in HAM/TSP, and those may possibly be causative or resultant genes. In glycome analysis with lectin array carrying 45 species of lectins, standardized signals of UDA (*Urtica dioica* agglutinin, stinging nettle) and STL (*Solanum tuberosum* lectin, potato) which recognize N-glycan (GlcNAc) were significantly high in samples from HTLV-1 infected groups (HAM/TSP and AC) compared with NC. Interestingly, UDA has been recently reported to inhibit cell-to-cell transmission of HTLV-1 in vitro. These genes and glycans may play roles in the pathogenesis of HAM/TSP.

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