



MEETING ABSTRACT

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Clinical subtype of HAM/TSP based on clinical course and laboratory findings

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From 15th International Conference on Human Retroviruses: HTLV and Related Viruses Leuven and Gembloux, Belgium. 5-8 June 2011

The clinical course and disease activity of patients with HTLV-1 associated myelopathy / tropical spastic paraparesis (HAM/TSP) are different among patients. Therefore, the treatment plan should be designed based on these backgrounds of patients. However, there is little information about the natural history of HAM/TSP and biomarkers of disease activity that is associated with prognosis.

As the candidate for biomarkers to evaluate the disease activity in HAM/TSP, HTLV-1 proviral load in PBMC, several cytokines and chemokines in serum or cerebrospinal fluid (CSF) are known to be increased in HAM/TSP patients. However, little is known which parameter of these candidates is most associated with disease severity.

Therefore, we investigated the clinical course of 30 HAM/TSP patients without any history of treatment. Furthermore, we measured quantitatively the concentration of a series of cytokines and chemokines in serum and CSF, and HTLV-1 proviral DNA load in PBMC. Then, the level of these markers was evaluated for the correlation with disease severity.

In HAM/TSP patients, the level of CXCL10/IP-10 and neopterin in CSF was strongly correlated with disease severity. Interestingly, the level of soluble IL-2 receptor and CXCL10/IP-10 in serum was also correlated with disease severity with statistical significance. Furthermore, based on the clinical course and laboratory findings, HAM/TSP was classified into 4 different clinical subtypes as follows; (1) Rapidly progressive (active), (2-A) Chronic progressive (active), (2-B) Chronic progressive (inactive), (3) Chronic mild (inactive). This classification

might be useful to determine the therapeutic strategy for patients with HAM/TSP.

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Published: 6 June 2011

doi:10.1186/1742-4690-8-S1-A42

Cite this article as: Yamano *et al.*: Clinical subtype of HAM/TSP based on clinical course and laboratory findings. *Retrovirology* 2011 **8**(Suppl 1):A42.

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