



ORAL PRESENTATION

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# The clinical spectrum of HTLV-1 infection

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From 17th International Conference on Human Retroviruses: HTLV and Related Viruses  
Trois Ilets, Martinique. 18-21 June 2015

The Human T lymphotropic virus type 1 (HTLV-1) infection is neglected mainly due to the concept that it is associated with a low morbidity. However, a few reports have shown that a large percentage of HTLV-1 infected subjects have signs and symptoms of a variety of diseases. Nevertheless the relationship between the cause and effect needs to be proven. The HTLV-1 associated myelopathy (HAM/TSP) and adult T-cell leukemia (ATL), the main disease associated to HTLV-1, are characterized by high proviral load and lymphocyte activation. Moreover the exaggerated inflammatory response and proviral load are markers of diseases associated with HTLV-1. In this study we compare the frequency of sicca syndrome, chronic periodontal disease (CPD), HTLV-1 associated over reactive bladder (HTLV-1 OAB), arthropathy and erectile dysfunction (ED) in HTLV-1 infected subjects who did not have definitive HAM/TSP with that observed in seronegative controls. The proviral load was measured by real time PCR and production of interferon- $\gamma$  and TNF in supernatants of lymphocyte culture by ELISA. Of the 180 individuals participants of the study, 106 (50.8%) were female, 56 (31.1%) had sicca syndrome, 37 (20.5%) had CPD, 32 (17.7%) had HTLV-1 OAB, 29 (16.6%) had HTLV-1 associated arthropathy. Moreover of the 74 males 31 (41.8%) had ED. All these manifestations were higher ( $P < 0.001$ ) in HTLV-1 infected subjects than in controls. Proviral load in sicca syndrome, CPD, HTLV-1 OAB and ED patients were higher ( $P < 0.05$ ) than in 78 (43,3%) HTLV-1 carriers. Patients with OAB, CPD and sicca syndrome had higher TNF and IFN- $\gamma$  than HTLV1 carriers. The majority of the patients with diseases associated to HTLV1 had at least two of the above diseases. Overall 56,7% of HTLV-1 infected subjects without

definitive HAM/TSP or ATL had diseases associated with HTLV1 infection indicating that HTLV-1 is associated with high morbidity.

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Published: 28 August 2015

doi:10.1186/1742-4690-12-S1-O19

Cite this article as: Tanajura et al.: The clinical spectrum of HTLV-1 infection. *Retrovirology* 2015 **12**(Suppl 1):O19.

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