

In vitro cytoskeleton changes of mouse neurons induced by purified HTLV-1, and PBMC from HAM/TSP patients and HTLV-1 carriers

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HTLV-1 is the causative agent of HAM/TSP. This neurological disease affects the CNS producing damage of the motor tracts at the spinal cord. The HAM/TSP pathogenesis remains undefined. It could include direct and indirect actions of HTLV-1. We studied the effect of purified HTLV-1 and the PBMC of 22 Chilean patients co-cultivated with fetal neurons of mouse (CNh cells): 8 HAM/TSP, 8 HTLV-1 carriers, and 6 non-infected controls. The viral antigens and provirus in CNh cells was evaluated with monoclonal and polyclonal antibodies reacting with HTLV-1 by immunofluorescence assay and PCR at 0, 7 and 15 days of co-cultures, respectively. Viral antigens were detected in 0.1-0.5%, and 0-0.3% of the neurons incubated with lymphocytes of HAM/TSP patients and HTLV-1 carriers, respectively. Neurons incubated with cells of 7 HAM/TSP patients, and 3 HTLV-1 carriers showed the presence of nucleotide sequences of tax gene. These results would be showing that CNh cells would express viral antigens and