



POSTER PRESENTATION

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# Differential expression in genes involved in the NF- $\kappa$ B pathway among asymptomatic HTLV-1 carriers and HAM/TSP patients in Peru

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HTLV-1-associated myelopathy/tropical spastic paraparesis (HAM/TSP) is a neuroinflammatory, non-remitting and disabling disease. NF- $\kappa$ B pathway plays a role in the pathogenesis of this condition. We compare the expression at peripheral level of 84 genes involved in the NF- $\kappa$ B pathway among asymptomatic HTLV-1 carriers (AC) and HAM/TSP patients. mRNA from PBMCs was isolated from 12 HTLV-1 carriers classified into three groups: four AC (=patients without any neurological condition) and eight patients with HAM/TSP (four with EDSS scores of 1-5 and four with EDSS score of 5.5-9.0). 84 genes related to the NF- $\kappa$ B pathway were evaluated using Superarray plates (SABiosciences) and Real Time PCR in both groups. Ct values under 35 were considered positive, False Discovery Rate was used to control by multiple comparisons. Three genes were dysregulated in HAM/TSP patients. The expression level of NF- $\kappa$ B1A was higher in AC compared to HAM/TSP patients, while EGR1 and IL-8 showed a lower expression in AC compared to HAM/TSP patients ( $p < 0.05$  after multiple testing correction). These results are in agreement to our previous genetic findings; nevertheless, a validation in an independent group is required to confirm these results. Further studies evaluating the role of genes involved in the NF- $\kappa$ B pathway as potential biomarkers for HAM/TSP are needed.

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