

High DNA HTLV-1 proviral load among TSP/HAM patients: A potential marker for disease progression

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Background: Human T-cell lymphotropic virus type 1 (HTLV-1) infection can increase the risk of developing neurological disorders. This study evaluated the correlation between HTLV-1 DNA proviral load among HTLV-1-infected individuals with HTLV-1-associated myelopathy (HAM/TSP). **Material and Methods:** In the last 15 years, one cohort of HTLV-1-infected subjects has been followed in the HTLV-outpatient Clinic at the Institute of Infectious Diseases "Emilio Ribas" (IIER). The results of the first HTLV-1 proviral load were available in the database. Quantitative proviral DNA levels were detected by a real-time automated PCR method, using TaqMan probes for the pol gene. The albumin gene served as the internal genomic control, and MT2 cells were used as a positive control. The results are reported as copies/10000 PBMCs, and the detection limit was 10 copies. **Results:** From this cohort, 60 HAM/TSP patients were studied. In accordance to the DNA HTLV-1 proviral load results were divided in four intervals: < 10 copies/104 PBMC= 12 (20%) patients; 11-50 copies/104 PBMC= 5 (8%); 101-500 copies/104 PBMC= 22 (36%); and >501 copies/104 PBMC= 21 patients (35%) $p \leq 0,001$. We observed a significant increased in proviral load in patients with HAM/TSP, showing this parameter as a potential marker for disease progression.

Biography

Adriele S. Fontes was graduated in Biomedicine from the Integrated College Aparicio Carvalho, Porto Velho, Rondonia city. Actually is Master's Student in Tropical Medicine and Health International at the IMTSP-USP.

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