



MEETING ABSTRACT

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HTLV-1 proviral load of HAM/TSP patients according to new diagnostic criteria of HAM/TSP

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Introduction

A high HTLV-1 proviral load is described in HTLV-1-associated diseases, especially HAM/TSP. However, the cutoff value to define high levels of HTLV-1-proviral load is not well established.

Methods

281 HTLV-1-infected patients from the HTLV reference center in Salvador, Brazil, were followed from 2005 to 2008. Patients were classified as asymptomatic, possible-, probable- and definite-HAM/TSP, in accordance with diagnostic criteria proposed by De Castro-Costa et al 2006. HTLV-1-proviral load was determined using real-time PCR. A receiver operator characteristic (ROC) curve was constructed using only asymptomatic individuals and definite-HAM/TSP patients. The ROC curve was used to predict the proviral load level that differentiates these two groups.

Results

Out of 281 patients, 189 were asymptomatic and 92 were diagnosed with HAM/TSP (22 possible, 23 probable, 47 definite). The mean HTLV-1 proviral load was higher in possible- (89,104±93,006 copies/10⁶ PBMC), -probable (175,854±128,083 copies/10⁶ PBMC) and definite- HAM/TSP patients (150,667±122,320 copies/10⁶ PBMC), when compared to asymptomatic individuals (27,178±41,155 copies/10⁶ PBMC) (p < 0.0001). A comparison of all HAM/TSP groups showed the highest proviral loads in probable-HAM/TSP patients, yet the differences in mean values were not statistically significant. The ROC curve

suggested a value of 49,865 copies/ 10⁶ PBMC, with 87% sensitivity (95% CI= 74 to 95) and 81% specificity (95% CI= 75 to 86), as the HAM/TSP patients (150,667±122,320 copies/10⁶ PBMC), when compared to asymptomatic individuals (27,178±41,155 copies/10⁶ PBMC) (p < 0.0001). A comparison of all HAM/TSP groups showed the highest proviral loads in probable-HAM/TSP patients, yet the differences in mean values were not statistically significant. The ROC curve suggested a value of 49,865 copies/10⁶ PBMC, with 87% sensitivity (95% CI= 74 to 95) and 81% specificity (95% CI= 75 to 86), as the best proviral load cutoff point to differentiate definite HAM/TSP patients from asymptomatic individuals.

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