### **MEETING ABSTRACT**





# High HTLV-I proviral load in patients with HAM/ TSP and ATLL but not with other disorders

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#### Background

HTLV-I proviral load (pVL) is proposed as a biomarker of disease progression. HTLV-I pVLs are higher in symptomatic compared to asymptomatic carriers. The aim of this study was to evaluate HTLV-I pVL in patients with HTLV-I associated diseases (HAM/TSP and ATLL) and other disorders (uveitis and pyoderma gangrenous–PG).

#### Methodology

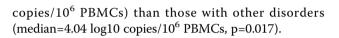
HTLV-I pVL was evaluated in 62 subjects; 52 asymptomatic and 10 symptomatic (5 HAM/TSP, 2 ATLL, 2 uveitis and 1 PG). HTLV-I pVL in PBMCs was estimated by a quantitative real-time PCR assay with SYBR Green, where HTLV-I pol gene is amplified in parallel with albumin gene as a normalizer. The limit of detection of the assay was of 400 copies of HTLV-I/10<sup>6</sup> PBMCs (0.04%). Differences among groups where assessed by Mann-Whitney test.

#### Results

Symptomatic subjects (median= $5.02 \log 10 \operatorname{copies}/10^6$  PBMCs, IQR=4.70-5.30) had significantly higher pVLs than asymptomatic carriers (median= $4.11 \log 10 \operatorname{copies}/10^6$  PBMCs, IQR=3.55-4.66, p=0.0015). HAM/TSP patients had pVLs between  $5.00-5.73 \log 10 \operatorname{copies}/10^6$  PBMCs (10-54%), ATLL patients had pVLs of 4.83 and  $5.50 \log 10 \operatorname{copies}/10^6$  PBMCs (7% and 33%, respectively); patients with uveitis had pVLs of ~ $4.00 \log 10 \operatorname{copies}/10^6$  PBMCs ( $\sim 1\%$ ) and PG patient had pVL of  $4.56 \log 10 \operatorname{copies}/10^6$  PBMCs (4%). Patients with HAM/TSP and ATLL had significantly higher pVL (median= $5.25 \log 10$ 

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#### Conclusion

HTLV-I pVL seems to be associated with pathogenic phenotype, being higher in subjects with HTLV-I associated diseases compared to those with other disorders.

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