# POLYMORPHISMS IN CYTOKINE GENES COULD BE INVOLVED WITH DISEASE IN HTLV-1 INFECTED INDIVIDUALS

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The HTLV-1 induces many pathologic deregulations, including disturbs on cytokines levels. Besides, these levels could be altered by gene polymorphisms. In addition, polymorphisms at HTLV-I receptor (Glut-I) could influence the cell infection by this virus. We investigated the polymorphisms -634 and -174 at IL-6 and -592 at IL-10 gene promoters in 133 HTLV-1 infected and 100 healthy individuals from Salvador. The XbaI polymorphism at Glut-I was determined in 105 infected and 151 non-infected individuals. Besides, 51 young asymptomatic individuals were recruited to identify factors that could be related to bone alteration. The SNPs were measured by real-time PCR and RFLP. Bone density was measured by DEXA and serum osteocalcin levels were determinated by ELISA and the HTLV proviral load by real-time PCR. We identified a significant association between possession of a C residue at -634 position and a increased risk of TSP/HAM. In addition, the IL-6 -174G/C showed a higher frequency of G allele in TSP/HAM patients. We did not find differences in the SNP at IL-10 or GLUT1. In the 51 young asymptomatic individuals we found 17 (47.9%) patients with osteopenia. Interestingly, all -174G/C individuals had osteoclacin levels lower than the normal value and this polymorphism was associated to higher proviral load. Together, these data suggest that IL-6 polymorphisms can be important in the development of symptoms in HTLV-I infected individuals.