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**T LYMPHOCYTES OF HTLV-1 INFECTED INDIVIDUALS PRESENTING CELLULAR ACTIVATION INDEPENDENTLY OF SPONTANEOUS PROLIFERATION****Mascarenhas RE<sup>1,3</sup>; Brodskyn C<sup>2</sup>; Clarêncio J<sup>2</sup>; Barbosa G<sup>3</sup>; Galvão-Castro B<sup>1,3</sup> & Grassi F<sup>1,3</sup>**

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We have recently demonstrated that HTLV-I infected individuals show immunosuppression, as reflected by a decrease in stimulation index to recall antigens, even in individuals without spontaneous PBMC proliferation (SP). In this study, we evaluated by flow cytometry the expression of CD25, CD28, CD69, CD62L, HLA-DR molecules and intracellular IFN- $\gamma$  on T cell subsets from HTLV-1 infected individuals presenting or not SP. Frequencies of CD4<sup>+</sup>CD45RO<sup>+</sup>CD25<sup>+</sup> and CD4<sup>+</sup>HLA-DR<sup>+</sup> T lymphocytes in both HTLV infected individuals SP+ (7%, 18%) and SP- (14%, 17%) were higher than uninfected controls (4%, 8%,) ( $p < 0.04$ ;  $p < 0.006$ , respectively). In contrast, CD4<sup>+</sup>CD62L<sup>+</sup> T lymphocytes was decreased in HTLV-1-infected individuals with SP+ (65%) compared to uninfected controls (80%) ( $p = 0.02$ ). The proportion of CD4<sup>+</sup> IFN- $\gamma$ <sup>+</sup> T cells was higher only in HTLV-1-infected individuals SP+ (6%) compared to uninfected controls (1%) ( $p = 0.003$ ). In the CD8<sup>+</sup> T-subset, the expression of CD62L and CD28 molecules was decreased in HTLV-infected individuals SP+ (43%, 60%, respectively), compared to uninfected controls (43%, 63%,  $p = 0.02$ ; and 60%, 92%,  $p = 0.0008$ , respectively). The expression of CD28 molecules in CD8<sup>+</sup> T-subset was also decreased in HTLV infected individuals without SP compared to uninfected controls (74%, 92%;  $p = 0.03$ ). The proportion of CD8<sup>+</sup> IFN- $\gamma$ <sup>+</sup> T-cells was slightly increased in HTLV-1-infected individuals ( $p > 0.05$ ). We observed a positive correlation between HTLV proviral load and SP ( $R = 0.3$ ,  $p = 0.02$ ), proportion of CD4<sup>+</sup>CD25<sup>+</sup> ( $R = 0.4$ ,  $p = 0.02$ ) and CD4<sup>+</sup>CD45RO<sup>+</sup> ( $R = 0.4$ ,  $p = 0.03$ ) T-lymphocytes. Our results suggest that cellular activation and IFN- $\gamma$  production are present in HTLV-1-infected individuals, even without SP. This phenomenon can play a role in the immunosuppression.