

0.36;  $p=0.001$ ), radiotherapy (HR: 0.17;  $p < 0.0001$ ) and ASCT (HR: 0.03;  $p=0.001$ ). In the multivariate analysis, factors associated with better 2-year OS were: LDH  $< 480$  U/L (HR: 0.40;  $p=0.005$ ) and ASCT (HR: 0.47;  $p=0.003$ ). LDH  $< 480$  U/L (HR: 0.45;  $p=0.01$ ) and ASCT (HR: 0.07;  $p=0.01$ ) were also associated with higher 2-year PFS in our cohort. **Conclusion:** This is the largest real-life Latin American nPTCL cohort published to date. Patients with nPTCL have poor survival and high rate of chemo-resistance. In our cohort, adding etoposide to the CHOP regimen showed no survival benefit and was associated with high toxicity. Normal values of LDH and consolidation with ASCT were independent factors associated with better outcomes in Brazilian patients with nPTCL.

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#### IMMUNE SENESCENCE-RELATED GENE EXPRESSION PROFILE IN CD4+ T-LYMPHOCYTES OF HTLV-1 ASYMPTOMATIC CARRIERS AND PATIENTS WITH ADULT T-CELL LEUKEMIA/LYMPHOMA (ATLL): A BRAZILIAN PRELIMINARY STUDY

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**Introduction:** ATLL is a rare and aggressive neoplasm caused by the human T-lymphotropic virus type 1 (HTLV-1). It is estimated that at least 5-10 million people carry HTLV-1 and 2-5% out of them will develop ATLL. Our group demonstrated an increase of cells in G0/G1 phase of cell cycle and aneuploidy in CD4+ T-cells in HTLV-1 asymptomatic carriers. These findings may reflect an adverse intracellular environment, caused by genetic stress due to viral particles inserted into host DNA. Intracellular mechanisms aiming to control and prevent replication of cells carrying genetic aberrations in genes involved in cell cycle regulation, DNA repair and apoptosis could be activated to hold cell division while DNA damage is repaired. Based on this hypothesis, delay of cell cycle in G0/G1 may be a step in the process of oncogenesis. Herein, we did a pilot study in order to analyze the pattern of expression of a set of genes involved in cell cycle control and senescence in CD4+ T-lymphocytes of HTLV-1 infected individuals searching for additional genetic abnormalities in this setting. **Methods:** Peripheral blood samples were tested obtained from five HTLV-1 asymptomatic carriers and four ATLL patients. T-CD4+ cells were isolated in magnetic column followed by RNA extraction. Subsequently, it was converted into cDNA for the assays of the qRT-PCR in microplates of 96 wells customized with 44 senescence related genes. A pool of five samples from healthy individuals (control group) was used as a calibrator. RNA transcription was measured using 7500 Fast real time PCR system (Applied Biosystems) and data were collected by the 7500 software v2.0.5 (Applied Biosystems). The expression levels of the target genes were calculated using the Livak and Schmittgen (2001) method. The mRNA

expression was normalized using the  $\beta$ -glucuronidase (GUSB) gene (Applied Biosystems, cod. Hs99999908\_m1) and those genes with expression  $\geq 2x$  or  $\leq 2x$  in comparison to control group were considered as differentially expressed and were chosen to be validated in a secondary cohort of thirty HTLV-1 infected individuals. **Results:** In HTLV-1 asymptomatic carriers the median age was 55 years (37-62 years) and 20% (1/5) of them were males, in ATLL patients: 45 years (38-66 years) and 100% (4/4) were females, while the control group had median age of 43 years (22-62 years) and 60% (3/5) were males. Among the ATLL group, 50% (2/4) were classified as smoldering, 25% (1/4) were acute and 25% (1/4) were lymphomatous, according to Shimoyama classification. COL3A1, SPARC and TWIST1 genes were overexpressed and CDKN1A, ID1, IFNG and TERT were suppressed in HTLV-1 asymptomatic carriers when compared to healthy controls. HTLV-1 infected and ATLL patients showed TWIST1 and COL3A1 genes overexpressed and IFNG, CDKN1A and TERT repressed. The ALDH1, FN1, NOX4 and COL1A1 genes did not amplified. **Conclusion:** These preliminaries results showed for the first time that HTLV-1 asymptomatic carriers present a set of genes differentially expressed in T-CD4+ cells, especially SPARC, TWIST1, COL3A1, CDKN1A and IFNG. These results will be confirmed in a validation cohort. We expected that this data shed some light on the comprehension of the cell microenvironment of the T-CD4+ lymphocyte in HTLV-1 asymptomatic carriers. Furthermore, we will be able to understand potential mechanisms associated with leukemogenesis in chronic infection by this virus, explaining eventual progression to ATLL.

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#### INCIDÊNCIA E CARACTERIZAÇÃO CLÍNICA E MORFOLÓGICA DAS NEOPLASIAS LINFOPROLIFERATIVAS MALIGNAS EM PACIENTES COM TRANSMISSÃO VERTICAL DE HIV NO RIO DE JANEIRO NA ERA PÓS TERAPIA ANTIRRETROVIRAL COMBINADA (cART): UM ESTUDO MULTICÊNTRICO

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A terapia antirretroviral combinada (cART) tornou a infecção pelo HIV uma doença crônica. Na população pediátrica, mais de 95% das infecções ocorrem por transmissão vertical (TV). O CDC inclui alguns linfomas na categoria de doenças definidoras de AIDS. Crianças e adolescentes infectados pelo HIV apresentam risco 60 a 200 vezes maior de desenvolver malignidades, principalmente Linfomas não-Hodgkin (LNH). Antes da disseminação da cART, a incidência de malignidades em crianças e adolescentes infectados variou muito entre

