



POSTER PRESENTATION

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Treatment of an aggressive STLV-1 associated lymphoma in a naturally infected baboon

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Human T Lymphotropic Virus type 1 infection is associated with a malignant lymphoproliferation named Adult T cell Leukemia/Lymphoma (ATLL). STLV-1, the simian counterpart of HTLV-1 also causes an ATLL-like disease. During the surveillance of our STLV-1 naturally infected *Papio anubis* cohort (n=45), we identified a 9 years-old female baboon exhibiting dyspnea, marked emaciation, and a lymphocyte count over 1010/L, pulmonary metastases and skin lesions similar to that observed in human ATLL patients. These symptoms suggested a hematologic malignancy induced by STLV-1. This diagnosis was confirmed by the evidence of massive lymphoproliferation in an inguinal lymph node biopsy and the presence of lymphocytes with characteristic abnormal nuclei (i.e. flower cells) in blood smears. As is the case for humans, the animal received a combination of AZT (Combivir) and alpha interferon (viraferon, 50 µg/week) for 4 months. During this period, blood proviral load (PVL) was measured every week. Due to the absence of health improvement and only a slight decrease in the PVL, the animal was euthanased. Histological analysis of the secondary lymphoid organs was performed, and PVL was measured in 25 different organs. All lymphoid organs contained CD3+, CD25+ lymphocytic infiltrates. Furthermore, lymphoma cells were found in lungs and liver. Tax-positive cells were detected by immunohistochemistry in spleen, lung, mesenteric, axillary, inguinal, tracheo-bronchial, lymph nodes. While all organs were PCR positive, the highest PVL was found in lymph nodes, spleen and lungs. Finally, the oligoclonality and the clonal diversity was analyzed in PBMCs throughout the treatment but also in the different organs. In conclusion, non-human

primates naturally infected with STLV-1 represent a useful model to study viral pathogenesis and to evaluate new treatments.

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