M-022-22 **UNUSUAL CASE OF HIV-1, HTLV-1, HTLV-2, AND HCV COINFECTIONS**

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Resumo

Background: HIV-1, HTLV-1, HTLV-2, and HCV are common among intravenous drug users (IDU), and these virus cause chronic infections. Coinfections of HIV/HCV and HIV/HTLV-1 have been associated with poor prognosis to the related diseases, while HIV/HTLV-2-coinfection was associated with delay in AIDS progression. Here we report an unusual case of HIV-1/HTLV-1/HTLV-2/HCV-coinfection in an IDU. In 1997, he was diagnosed HIV and HCV seropositive. He had Pneumocystis. jirovecii pneumonia and started antiretroviral therapy (ARV). In 2002, he showed HTLV-1 by serology and HTLV-2 by PCR. At present, using others molecular approaches we tried to confirm these results. Materials and Methods: Blood samples of 2002 and 2012 were assessed for the presence of HTLV-1/2 antibodies by WB2.4, and for provirus DNA (LTR, tax, env) by nested-PCR followed by sequencing. HTLV-1/2 and HIV subtyping were performed by NCBI-Genotyping and phylogeny. Important glycosylation and fusion sites in the gp46 of HTLV-1/2 were searched using uniprot.org website. Proviral load was quantified by real-time PCR (pol), and tropism of HIV strains by Geno2Pheno (gp120). Results: We confirmed seropositivity for HTLV-1 only, but HTLV-1/HTLV-2-double infection with identical sequences of LTR, env and tax in two samples. They belong to HTLV-1a and HTLV-2a subtypes (variant -2c). No mutation in env region that justify the lack of HTLV-2 seroreactivity was detected. HIV strains belong to subtype B, and changed from CXCR4 to CCR5 during follow-up. Although interruptions of ARV, the mean CD4+ cell counts was 287/μL (range 170 to 441) and HIV viral load under the detection limit. Conclusions: Although this patient was quarterly infected, he maintains HIV and HCV viral loads under control. We could speculate on the benefit of HTLV-2-coinfection in this patient, but only studies of cellular immunity could address this issue. Support: CNPq (grants#481040/2007-2, fellowship to ACA#303328/2009-6); CAPES (fellowship to MCM); IAL (grants#33/07 and 39/07).