Natureza do trabalho: Resumo

TÍTULO

SHARED PATHOLOGICAL MECHANISMS BETWEEN HIV ASSOCIATED DEMENTIA AND ALZHEIMER’S DISEASE

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RESUMO

Introduction: With the advance of treatment for Acquired Immunodeficiency Syndrome (AIDS), and the consequent increased survival of the patients, concerns regarding cognitive damage caused by the Human Immunodeficiency Virus (HIV) have increased; these patients are now getting into the age group in which cognitive diseases, like Alzheimer’s Disease (AD), become more likely. Patients with HIV Associated Dementia (HAD) often displays similar signs to AD signs, which makes more difficult the differentiated diagnosis, since they are common in the elderly. Literature review: Patients that consume the Highly Active Antiretroviral Therapy (HAART) may develop β-amyloid (βA42) plaques, similar to AD. Some patients may develop HAD as a consequence of accelerated aging associated to neurodegeneration. Evidence that support this idea include similar risk factors, as abnormal levels of AD biomarkers in the HIV infection, neuropathological evidence of amyloid plaques into some brains with HIV, common pathogenic mechanisms and in vitro mechanisms. Neuronal death associated with diffuse deposits of amyloid were mostly found in HIV patients in comparison to the control group. The brain cortex of Patients with AIDS is the most likely place to develop amyloid plaques because of the high levels of IL-1. Both in AIDS and AD is the high production of inflammatory cytokines that maintain immune cells activated causing neuronal injury and eventually neuronal death, there are also increased levels of ROS, NO and glutamate. The neurotoxicity that may lead to axonal loss is similar in AD and the HIV infection, after the death of oligodendrocytes, axons are more vulnerable to the cytotoxic events. Conclusion: HAART has increased life expectations of the HIV positive patients and the elderly are more sexually active today than ever. The aim of researches now should be the differentiated diagnosis of HAD and AD for a more accurate treatment and following of these patients.