

**Natureza do trabalho:** Resumo

**TÍTULO**

*HUMAN IMMUNODEFICIENCY VIRUS-ASSOCIATED DEPRESSION AND COGNITIVE DECLINE*

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**RESUMO**

**Introduction:** With the introduction of highly active antiretroviral therapy, survival rates associated with HIV infection have been greatly improved. However, HIV patients commonly develop neuropsychiatric disorders such as major depressive disorder (MDD) and HIV associated neurocognitive disorders (HAND).

**Literature review:** During the first weeks of HIV infection, the virus enters the Central Nervous System by a “Trojan horse” mechanism. HIV-activated infected immune system cells release cytokines, chemokines, toxic viral proteins and infectious virions in the CNS that drive progression of the infection and inflammation. The chronic inflammation induces a form of “sickness state behavior,” which its characteristics. As HIV is a chronic infection, this induces a chronic manifestation of sickness behavior, which is very similar to MDD. Therefore the persistent CNS cytokine response provides a basis for the depressive state. In addition, HIV patients frequently suffer significant cognitive deficits. HIV depression may result from a combination of psychological stress, biochemical dysfunction (lower neurotrophins and monoamines, glutamatergic disturbances, glucocorticoid receptor resistance, the production of neurotoxic metabolites, and oxidative stress) due to chronic viral neuroinflammation, and neuronal death that surpasses neurogenesis. Depression itself is reversible, but as it becomes chronic or recurrent, cognitive deficits may arise. This cognitive decline suggests a link between HAND and HIV depression.

**Conclusion:** Depression among PLHIV is due to its high prevalence rates, and its serious negative impact on the evolution of HIV infection is a public health concern. It probably results from complex interactions between psychosocial factors and the neuroinflammatory and neurotoxic viral effects on the brain.