

Alcohol and Cannabinoids: Implications for HIV-Infected Patients

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Abstract

With human immunodeficiency virus (HIV) becoming a more chronic disease since the advent of highly active antiretroviral therapy (HAART), the percentage of HIV-infected patients that consume and abuse alcohol has been reported to be significant. Current understanding of the comorbid and pathophysiological conditions resulting from HIV infection in individuals that abuse alcohol indicate that alcohol can alter virus infectivity, host immune response, progression of disease and tissue injury, and ultimately mortality from HIV infection. While interventions to reduce or avoid alcohol consumption are the obvious approach to decrease morbidity in this patient population, understanding the specific organ system interactions and the mechanisms involved in alcohol-induced effects are important in the amelioration of disease burden. This presentation will provide an overview of the principal pathological consequences of alcohol abuse during the course of Simian Immunodeficiency Virus (SIV) infection, with particular emphasis on its impact on erosion of lean body mass associated with AIDS wasting.

Δ^9 -tetrahydrocannabinol (Δ^9 -THC), the primary psychoactive component of marijuana, is used to ameliorate Acquired Immune Deficiency Syndrome associated wasting. In addition, its recreational use is highly prevalent in the population, including the HIV-infected population. Cannabinoid receptors are expressed in cells of the immune system, raising the possibility that chronic Δ^9 -THC use may impact immune function, potentially affecting progression of HIV infection. This presentation will focus on results obtained from controlled and systematic studies on the impact of Δ^9 -THC on neurobehavioral, immune, and metabolic aspects of SIV infection.