

Outcomes of HIV Encephalopathy

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Introduction: Approximately 4-8% of the 1.1 million HIV patients in the United States have or will be diagnosed with HIV encephalopathy or HIV associated dementia (HAD). There are currently no published studies of the long-term outcomes of HAD treated with potent antiretroviral therapy (ART). Our project aims to be the first to describe the neurocognitive, medical, and functional outcomes of patients diagnosed with HAD treated with potent ART.

Hypothesis: We predict that more than 60% of individuals diagnosed with HAD will have persistent neurocognitive impairment despite successful use of potent ART; fewer than 20% will be employed; and 20% will be unable to manage their own affairs.

Methods: This is a cross-sectional prospective and retrospective study of outcomes in individuals previously diagnosed with HAD. We identified all individuals with the diagnosis of dementia and HIV at the UC Infectious Diseases Center (IDC). For those who matched the 1993 CDC HAD definition, we collected medical, neurocognitive, and functional information. We attempted to contact all individuals still in the IDC practice to perform a validated battery of neuropsychological tests. We collected medical, functional, and neurocognitive information for all participants.

Results: We confirmed 40 diagnoses of HAD out of 137 records reviewed. The median CD4 count at time of diagnosis of HAD was 47 cells/mm³ with a median viral load of 211,475 copies/mL. 67.5% of participants were treated with potent ART with undetectable viral loads. 32.5% had documented persistent neurologic deficits (n=40). 60% had documented persistent cognitive deficits (n=40). 72.5% had documented persistent psychiatric deficits (n=40). 2.5% of participants were documented as employed part time (n=40). 0% were documented as employed full time (n=40). 27.5% have died. To date, 10 participants have undergone formal neurocognitive testing.

Conclusions: HAD results in substantial morbidity and mortality despite potent antiretroviral therapy. Formal analysis of the prospective neurocognitive component is ongoing, and we are inviting 10 additional patients to complete testing.

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