

EFFECTS OF AZT ON BEAM, SPECT, AND NEUROPSYCHOLOGICAL DEFICITS IN HIV DEMENTIA

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Previous work (Coburn et al 1992, NeuroReport 3(6):539-541) had shown the P300 to be a sensitive indicator of HIV encephalopathy, undergoing significant delays while EEG's and visual EP's remained within normal limits. The present study combined BEAM, SPECT, and Neuropsychological testing to assess the ability of AZT (600 mg/day; 6 weeks) to reverse HIV encephalopathy and neuropsychological deficits in patients showing early dementia. Compared to pretreatment baselines: (1) Neuropsychological testing showed significantly faster number cancellation, reflecting improvement in the "mental slowing" which is a hallmark of HIV dementia. (2) Auditory P300's showed significant delays. (3) SPECT showed a multifocal pattern of hypoperfusion with variable response to AZT treatment. In general, decreased "mental slowing" corresponded to better frontal and anterior parietal perfusion, while delayed P300's were associated with continued temporal and parietal hypoperfusion. These results suggest that the 600 mg AZT dosage used in clinical practice is only marginally effective in reversing HIV encephalopathy and its resulting dementia.

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