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Is There a Relationship Between Cerebral Atherosclerosis and Alzheimer's Disease?

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Poster Presentation 5

**IS THERE A RELATIONSHIP BETWEEN CEREBRAL
ATHEROSCLEROSIS AND ALZHEIMER'S DISEASE ?**

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Alzheimer's Disease (AD) is a progressive degenerative disorder of the brain clinically manifested by cognitive deterioration. It usually begins in later life (> 65 years old), and results in death in about 3 to 10 years. Although originally thought to be a rare disease, AD has now reached startling proportions. Indeed, AD is the fourth leading cause of death in adults, after heart disease, cancer and stroke, and is the most common form of dementia. Currently, 4 million Americans have AD, 19 million Americans say they have a family member with AD, and 37 million know someone with AD. Although significant progress has been made toward understanding the etiology of AD, presently there is no known cause or treatment. One neuropathological hallmark of Alzheimer's Disease (AD) is the extracellular deposition in the cerebral cortex, hippocampus, and basal forebrain of insoluble aggregates of a 40-42 amino acid long peptide called β -amyloid peptide (β AP1-42). This β AP is derived from a larger transmembrane precursor protein by an unknown proteolytic mechanism. Since the molecular events that are triggered during an ischemic stroke are similar to those that have been proposed for AD, we investigated whether age of onset of AD and the extent of amyloid deposition is different in neuropathologically conformed cases of AD in people with atherosclerosis compared to AD patients without cerebrovascular disease. The results of this analysis will be presented at the conference.