

# factors for Alzheimer's disease

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## **Abstract:**

A number of biological risk factors have been implicated for Alzheimer's disease (AD). The investigation of prevalence rates of AD in crosscultural populations has much potential in validating these factors. We previously assessed brain amyloid  $\beta$  (Ab) protein deposition and other lesions associated with AD as possible markers for preclinical AD in elderly nondemented East Africans. In further analysis, we demonstrate that 17.619% of elderly East African subjects without clinical neurological disease exhibited neocortical Ab deposits and minimal neurofibrillary changes at necropsy that was qualitatively and quantitatively similar to that in an age-matched elderly control sample from Cleveland, OH. Ab deposits varied from numerous diffuse to highly localized neuritic plaques and were predominantly reactive for the longer Ab<sub>42</sub> species. In parallel studies, we evaluated another recently implicated factor in AD, the apolipoprotein E genotype. We found relatively high frequencies of the apolipoprotein E-e4 allele in elderly nondemented East Africans. The frequencies were comparable to those in other African populations but higher than in subjects from developed countries. Our limited study suggests that elderly East Africans acquire cerebral lesions found in AD subjects but the apolipoprotein E-e4 allele may not be a highly specific factor for the disease among East Africans