POLYMORPHISM IN APOA1 INFLUENCES HDL-CHOLESTEROL LEVELS BUT IS NOT A MAJOR RISK FACTOR OF ALZHEIMER’S DISEASE

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Alterations in cholesterol homeostasis influence the risk for Alzheimer’s disease (AD). Apolipoprotein A1 is the major apolipoprotein of the high-density lipoprotein and is involved in reverse cholesterol transport. Variation in the apolipoprotein A1 gene (apoA1) might influence the function of the protein, and thus brain cholesterol metabolism, leading to an increased risk for AD. We investigated the impact of rs670 polymorphism at position -75bp in the apoA1 gene on the risk for AD in 93 AD patients and 116 healthy control subjects of Tunisian descent. We were unable to show any impact of this polymorphism on the risk of AD. However, the apoA1 -75G>A polymorphism influenced CSF levels of Aβ42 and HDL-C levels in sera. Our data support the observation that apoA1 polymorphisms influence cholesterol metabolism and Aβ42 deposition in the brain.