

Cognitive impairment and Alzheimer's disease: Links with oxidative stress and cholesterol metabolism

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Oxidative stress has been implicated in the progression of a number of neurodegenerative diseases, including Alzheimer's disease (AD), Parkinson's disease and amyotrophic lateral sclerosis. We carried out an in-depth study of cognitive impairment and its relationships with oxidative stress markers such as ferric-reducing ability of plasma (FRAP), plasma malondialdehyde and total antioxidative capacity (TAC), as well as cholesterol parameters, in two subsets of subjects, AD patients (n = 59) and a control group of neurologically normal subjects (n = 29), attending the University Hospital Salvador in Santiago, Chile. Cognitive impairment was assessed by a set of neuropsychological tests (Mini-Mental State Examination, Boston Naming Test, Ideomotor Praxia by imitation, Semantic Verbal Fluency of animals or words with initial A, Test of Memory Alteration, Frontal Assessment Battery), while the levels of those oxidative stress markers and cholesterol metabolism parameters were determined ac