

Relation between Copper, Lipid Profile, and Cognition in Elderly Jordanians

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Abstract : The purpose of the current study was to examine the association of plasma copper and lipid concentrations with changes in cognitive function in elderly Jordanian individuals. The study population consisted of two groups; 52 subjects with dementia, and 50 controls. All individuals were screened with Mini-Mental State Examination (MMSE) and Clock drawing test (CDT). Serum copper and lipid profile were assessed in all subjects, and the results were statistically evaluated at $P < 0.05$ level of significance. Dementia group had 10.1 % higher copper levels than controls however the difference was not statistically significant. No significant differences could be found between the two groups in lipid profile levels. There was no significant correlation between serum copper, lipid profile and cognitive decline in elderly Jordanians. Demographic variables indicate that educational level less than 12 years and illiterate demonstrated a 3.29 fold ($p=0.026$) and 6.29 fold ($p=0.002$) increase in risk of developing dementia, respectively. While coffee intake showed a protective effect against cognitive decline with 6.25 fold lower risk with increased coffee intake.

Keywords : copper, cholesterol, dementia, Alzheimer's disease, lipid profile, coffee

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