Albumin, high-density lipoprotein and cognitive performance in older adults

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Objective: Results from clinical samples suggest low levels of both serum albumin (Alb) and high-density lipoprotein (HDL) may be associated with increased cognitive dysfunction. Alb and HDL may have neurological protective effects during aging. Because there few data on Alb and HDL in the determination of very mild dementia risk, we examined whether both decreased Alb and HDL levels are correlated with poor cognitive performance among community-living older adults.

Methods: Serum albumin, total plasma cholesterol, low-density lipoprotein (LDL) cholesterol, HDL, and triglycerides (TG) were measured in a group of older adults in Taiwan (N=634; older than 65 years) and were correlated with their cognitive performance (measured by AD8 questionnaire).

Results: After controlling for age and gender, Alb (r = -.37; p < .001), total plasma cholesterol (r = -.17; p < .001), HDL (r = -.18; p < .001), TG (r = .10; p < .05) were correlated significantly with poor cognitive performance. Our results suggest that decreased levels of Alb and HDL might pose risk for cognitive decline, although further studies involving a larger cohort study are now needed to verify our results.

Keywords: albumin, HDL, AD8