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Functional Medicine

QUOTE GM #19

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Title

Created

NOT ONLY HBA1C BUT ALSO TRIGLYCERIDES REDUCE COGNITION

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Triglycerides are negatively correlated with cognitive function in nondemented aging adults.

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Abstract

OBJECTIVE: Vascular risk factors like hyperlipidemia may adversely affect brain function. We hypothesized that increased serum triglycerides are associated with decreased executive function and memory in nondemented elderly subjects. We also researched possible vascular mediators and white matter microstructure as assessed with diffusion tensor imaging (DTI).

DESIGN/METHOD: Participants were 251 nondemented elderly adults (54% male) with a mean age of 78 (SD = 6.4; range: 62-94) years and a mean education of 15.6 (SD = 2.9; range: 8-23) years. Fasting blood samples were used to detect serum triglyceride and low-density lipoprotein (LDL) levels along with ApoE4 status. DTI was used to determine whole brain fractional anisotropy (FA). Composite executive and memory scores were derived from item response theory. Clinical Dementia Rating (CDR) scores provided informant-based measures of daily functioning.

RESULTS: Triglyceride levels were inversely correlated with executive function, but there was no relationship with memory. Controlling for age, gender, and education did not affect this correlation. This relationship persisted after controlling for vascular risk factors like LDL, total cholesterol, CDR and ApoE4 status. Lastly, adding whole-brain FA to the model did not affect the correlation between triglycerides and executive function.

CONCLUSION: Triglyceride levels are inversely correlated with executive function in nondemented elderly adults after controlling for age, education, gender, total cholesterol, LDL, ApoE4 status, CDR, and white-matter microstructure. The fact that the effect of triglycerides on cognition was not clearly mediated by vascular risks or cerebrovascular injury raises questions about widely held assumptions of how triglycerides might impact cognition function. (PsycINFO Database Record

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“CONCLUSION:

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