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Functional Medicine

QUOTE GM #44

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Title

Created

HIGH GLYCOSYLATED HAEMOGLOBIN PREDICTS MEMORY DECLINE!

Alzheimer Dis Assoc Disord. 2017 Jan-Mar;31(1):48-54. doi: 10.1097/WAD.000000000000182.

High Hemoglobin A1c and Diabetes Predict Memory Decline in the Health and Retirement Study.

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Abstract

BACKGROUND: Type 2 diabetes (T2D) is an established risk factor for dementia, but evidence for T2D and memory decline is less consistent. Understanding how T2D and blood glucose relate to memory decline is crucial to elucidating the mechanisms linking T2D and dementia.

MATERIALS AND METHODS: For 8888 Health and Retirement Study participants aged 50+, glycosylated hemoglobin (HbA1c) was measured in either 2006 or 2008 and physician's diagnosis of diabetes was self-reported in the same year. Composite memory (z scored) was assessed biennially through 2012 using immediate and delayed word list recall or the Informant Questionnaire for Cognitive Decline. Marginal mean regression models for repeated outcomes were specified to predict memory decline as a function of diabetes or HbA1c, using age as the timescale and adjusting for health and social confounders.

RESULTS: Diabetes was associated with a 10% faster rate of memory decline ($\beta=-0.04$ per decade; 95% confidence interval (CI), -0.06 to -0.01). A 1 U increase in HbA1c corresponded with a 0.05 SD decrease in memory score per decade (95% CI, -0.08 to -0.03). Even among individuals with HbA1c<6.5% (threshold for diabetes), higher HbA1c was associated with memory decline ($\beta=-0.05$ per decade; 95% CI, -0.08 to -0.03).

DISCUSSION: Diabetes accelerated memory loss and higher HbA1c predicted memory decline even in nondiabetics.

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DISCUSSION:

*Diabetes accelerated memory loss and **higher HbA1c predicted memory decline even in nondiabetics.***