

Abstract

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Vascular risk and low serum B12 predict white matter lesions in patients with major depression.

Hickie I, Naismith S, Ward PB, Scott E, Mitchell P, Wilhelm K, Parker G.

Brain and Mind Research Institute, University of Sydney, P.O. Box M160, Missenden Road NSW 2050, Australia; Beyondblue: The National Depression Initiative, VIC Australia

BACKGROUND: While patients with depression have been shown to have a greater incidence of vascular risk factors and structural brain changes, any association with dietary co-factors is unclear.

METHODS: Forty-seven patients with major depression (mean age = 52.8 years, SD = 12.6) and 21 healthy volunteers (mean age = 54.7 years, SD = 9.1) underwent high-resolution magnetic resonance imaging scanning. T2-weighted films were scored for deep white matter (DWM), periventricular (PV), and subcortical (SC) hyperintensities.

RESULTS: There was no difference in lesion severity between patients and control subjects. After controlling for age, vitamin B12 levels were predictive of DWM lesions in patients. DWM and SC lesions were associated with histories of hypertension and diabetes.

LIMITATIONS: A relatively small sample of patients were recruited from specialist services and the findings may not represent those observed in larger or community-based cohorts.

CONCLUSIONS: In patients with major depression, vitamin B12 levels and histories of hypertension and/or diabetes are predictive of white matter lesions.

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