

Abstract

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High vitamin B12 level and good treatment outcome may be associated in major depressive disorder.

Hintikka J, Tolmunen T, Tanskanen A, Viinamäki H.

Department of Psychiatry, Kuopio University Hospital, Kuopio, Finland.

BACKGROUND: Despite of an increasing body of research the associations between vitamin B12 and folate levels and the treatment outcome in depressive disorders are still unsolved. We therefore conducted this naturalistic prospective follow-up study. Our aim was to determine whether there were any associations between the vitamin B12 and folate level and the six-month treatment outcome in patients with major depressive disorder. Because vitamin B12 and folate deficiency may result in changes in haematological indices, including mean corpuscular volume, red blood cell count and hematocrit, we also examined whether these indices were associated with the treatment outcome.

METHODS: Haematological indices, erythrocyte folate and serum vitamin B12 levels were determined in 115 outpatients with DSM-III-R major depressive disorder at baseline and serum vitamin B12 level again on six-month follow-up. The 17-item Hamilton Depression Rating Scale was also compiled, respectively. In the statistical analysis we used chi-squared test, Pearson's correlation coefficient, the Student's t-test, analysis of variance (ANOVA), and univariate and multivariate linear regression analysis.

RESULTS: Higher vitamin B12 levels significantly associated with a better outcome. The association between the folate level and treatment outcome was weak and probably not independent. No relationship was found between haematological indices and the six-month outcome.

CONCLUSION: The vitamin B12 level and the probability of recovery from major depression may be positively associated. Nevertheless, further studies are suggested to confirm this finding.

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