

B-vitamins and Depression

A. Ford¹, O.P. Almeida¹, L. Flicker², V. Hirani¹, K. McCaul³, U. Singh⁴, F. Van Bockxmeer⁵

¹School of Psychiatry and Clinical Neurosciences, The University of Western Australia, Perth, Australia ;

²School of Medicine, The University of Western Australia, Perth, Australia ; ³WA Centre for Health and Ageing, The University of Western Australia, Perth, Australia ; ⁴Psychiatry, Royal Perth Hospital, Perth, Australia ;

⁵Clinical Biochemistry, Royal Perth Hospital, Perth, Australia

Introduction

B-vitamin insufficiency is associated with depression but it is uncertain if treatment with these is effective in prevention or treatment.

Objectives and Aims

1. To determine if daily supplementation with B-vitamins enhances response to antidepressants.
2. Systematic review and meta-analysis of randomised, placebo-controlled trials of B-vitamins for depressive symptoms in adults.

Methods

1. The B-VITAGE trial is a 52 week randomised, double-blind, placebo-controlled trial of citalopram together with vitamin B12, B6 and folic acid in older adult participants with major depression.
2. Systematic review of 13 eligible trials of B-vitamin supplementation for the reduction, remission and prevention of clinically significant depressive symptoms.

Results

Remission was achieved by 78.1% and 79.4% of participants treated with placebo (n=76) and vitamins (n=77) by week 12 (p=0.328), and by 75.8% and 85.5% at week 52 (effect of intervention over 52 weeks: odds ratio, OR=2.49; 95% confidence interval, 95%CI=1.12,5.51). The risk of subsequent relapse among those who had achieved remission of symptoms at week 12 was lower in the vitamin group (OR=0.33, 95%CI=0.12,0.94).

Short-term use of vitamins did not improve depressive symptoms in adults with major depression treated with antidepressants (standardised mean difference=-0.12, 95% CI=-0.45,0.22), but more prolonged consumption decreased the risk of relapse (OR=0.33, 95%CI=0.12,0.94) and the onset of clinically significant symptoms in people at risk (risk ratio=0.65, 95%CI=0.43,0.98).

Conclusions

Short-term use of B-vitamins does not appear to benefit depressive symptoms although longer use may enhance and sustain antidepressant response and decrease the risk of relapse or onset of clinically significant depression.