

Abstract

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Clinical trial: B vitamins improve health in patients with coeliac disease living on a gluten-free diet.

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BACKGROUND: Patients with coeliac disease living on a gluten-free diet show vitamin deficiency and reduced subjective health status.

AIM: To study the biochemical and clinical effects of B vitamin supplementation in adults with longstanding coeliac disease.

METHODS: In a double blind placebo controlled multicentre trial, 65 coeliac patients (61% women) aged 45-64 years on a strict gluten-free diet for several years were randomized to a daily dose of 0.8 mg folic acid, 0.5 mg cyanocobalamin and 3 mg pyridoxine or placebo for 6 months. The outcome measures were psychological general well-being (PGWB) and the plasma total homocysteine (tHcy) level, marker of B vitamin status.

RESULTS: Fifty-seven patients (88%) completed the trial. The tHcy level was baseline median 11.7 micromol/L (7.4-23.0), significantly higher than in matched population controls [10.2 micromol/L (6.7-22.6) ($P < 0.01$)]. Following vitamin supplementation, tHcy dropped a median of 34% ($P < 0.001$), accompanied by significant improvement in well-being ($P < 0.01$), notably Anxiety ($P < 0.05$) and Depressed Mood ($P < 0.05$) for patients with poor well-being.

CONCLUSIONS: Adults with longstanding coeliac disease taking extra B vitamins for 6 months showed normalized tHcy and significant improvement in general well-being, suggesting that B vitamins should be considered in people advised to follow a gluten-free diet.

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