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Titel des Beitrags: Vitamin D Deficiency, Cognitive Impairment and Dementia: A Systematic Review and Meta-Analysis

Abstract: Background: Recent preventive strategies for patients with cognitive impairment include the identification of modifiable somatic risk factors like vitamin D deficiency. Methods: A systematic literature research and meta-analysis were conducted to assess the association of cognitive impairment and vitamin D deficiency. Results: Data from cross-sectional and longitudinal studies suggest an association between cognitive impairment and vitamin D deficiency. Meta-analysis of 5 cross-sectional and 2 longitudinal studies comprising 7,688 participants showed an increased risk of cognitive impairment in those with low vitamin D compared with normal vitamin D (OR 2.39, 95% CI 1.91–3.00; p < 0.0001).

Conclusions: Methodological limitations of these studies comprise heterogeneity of study populations, different forms of cognitive assessment, the problem of reverse causality, different definitions of vitamin D deficiency and inconsistent control for confounders. As the value of vitamin D substitution in cognitive impairment remains doubtful, a long-time major placebo-controlled randomized trial of vitamin D supplementation in participants with mild cognitive impairment (MCI) should be started.

Stichworte: Cognitive impairment; Dementia; Vitamin D; Etiology; Prevention

Zeitschriftentitel: Dementia and Geriatric Cognitive Disorders