Abstract

Background: the question on whether undernutrition remains linked to depressive symptoms, considering the effect of deficiencies of vitamin B12 and folate, is of practical relevance because they are potentially preventable and treatable. This study aims to evaluate whether undernutrition is linked to depressive symptoms, considering the effect of vitamin B12 and folate plasma levels.

Method: a cross-sectional study was conducted in a sample of 84 older adults living in care homes. Data about nutritional status using Mini-Nutritional Assessment, serum folic acid and Vitamin B12 levels, cognitive ability, functional dependency, symptoms and/or depressive behaviour was obtained. Depression symptoms were measured using the 20-item version of the Center for Epidemiologic Studies Depression scale. Results: fifty three older adults were at depression risk (63.1%). Of those, 34% were at undernutrition risk. Although a high frequency of older adults with low plasma levels of vitamin B12 (42.9%) and lower levels of folic acid (5.9%) was found, no significant differences concerning the existence of depressive symptoms were found. In the multivariable analysis, an increase in depression risk was observed amongst participants nutritionally at risk OR = 3.47 (1.05-11.46), whereas having low levels of folic acid and Vitamins B12 were not associated with depression risk. Conclusion: amongst undernourished older adults, an increase in risk of depression was observed independently of folic acid and vitamin B12 status. These results highlight the need to implement preventive strategies, particularly directed at older adults living in care home.

Keywords

Undernutrition, Depression, Elderly, Folic acid, Vitamin B12.