Does the nature of nutrition affect the development and course of relapsing-remitting multiple sclerosis (RRMS)?

L. Sokolova, K. Potapova
Neurology Department, Bogomolets National Medical University, Ukraine

Considering the connection between microbiota and immune system, nutrition recommendations for patients with multiple sclerosis can lead to immune modulation and positive effect. Aim: determine the main models of nutrition dominating among patients with RRMS with different activity. Material and methods: 30 women with RRMS who didn't change their dietary habits, and 30 healthy women at the age 25.0 ± 5.0 and 26.0 ± 5.0, respectively, were examined. The diagnosis was established in accordance with the McDonald`s criteria, EDSS = 2-3. The FFQ-based questionnaire was used, where nutrition products were grouped into clusters and 5 types of dietary models were derived. Results: all 5 types of dietary patterns were identified in the examined patients: western, high-fat, vegetarian, lactovegetarian and traditional models. Most patients followed the western model [odds ratio (OR)= 1.97; 95% confidence interval CI: 1.61-2.92, P 0.005] and high-fat model [(OR)= 1.87; 95% CI: 1.61-2.92, P 0.005]. A minority of the patients preferred the traditional [(OR) = 0.17; 95% (CI): 0.05-0.20, P = 0.028], vegetarian [(OR) = 0.40; 95% ; (CI): 0.17-0.78, P = 0.026] lactovegetarian [(OR) = 0.33; 95%; (CI): 0.14-0.84, P = 0.018]. During 6 months the patients who followed the western model had 1-2 exacerbations with new periventricular Gd+ lesions on MRI while patients on other diets didn't have exacerbations. Conclusion: the western and high-fat models dominate among the RRMS patients which probably causes the bigger activity of the disease.