DOES THE NATURE OF NUTRITION AFFECT THE DEVELOPMENT AND COURSE OF RELAPSING-REMITTING MULTIPLE SCLEROSIS (RRMS)?

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ABSTRACT

Considering the close relationship between microbiota and immune system, creation of recommendations for nutrition and type of dietary pattern for patients with multiple sclerosis can lead to immune modulation and obtaining of positive effect.

Aim: determine the main models of nutrition dominating among patients with RRMS with different activity.

METHODS

30 healthy women and 30 women with RRMS

The age 25.0 ± 5.0 and 26.0 ± 5.0

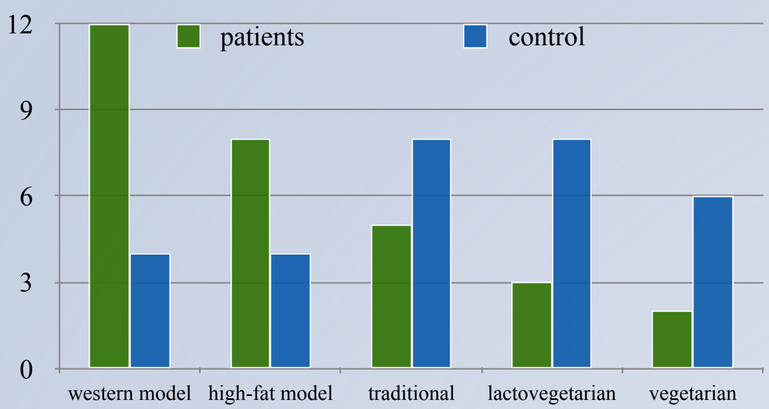
The diagnosis was established in accordance with the McDonalds criteria (2011), EDSS = 2-3

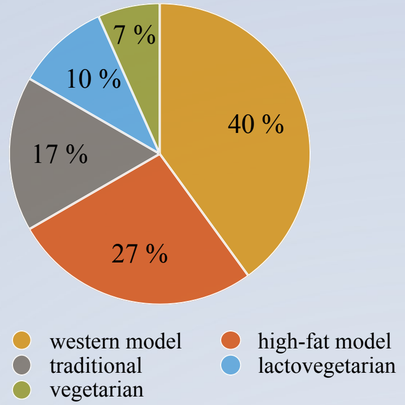
The FFQ-based questionnaire was used, where nutrition products were grouped into clusters and 5 types of dietary models were derived:

1. **Traditional dietary pattern:** high in low-fat dairy products, red and organ meats, vegetable oils, onion, whole grains, soy, coffee, butter;
2. **Western dietary pattern:** high in processed meats, pickles, pizza, garlic, butter, sugars, refined grains, soft drink;
3. **High fat:** high in animal fats, potato, other meat products, sugars, hydrogenated fats and low in whole grains;
4. **Vegetarian pattern:** high in green leafy vegetables, hydrogenated fats, tomato, yellow vegetables, fruit juices, onion, and other vegetables;
5. **Lactovegetarian pattern:** high in nuts, fruits, coffee, vegetables, high fat dairy products, and sugars;

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 another diets didn't have exacerbations.

CONCLUSIONS

Our analysis showed that 2 dietary patterns: western and high-fat diets significantly more frequent observed in patients with MS. An inverse relationship was observed between traditional, vegetarian and lactovegetarian dietary patterns in patients with MS. The western models dominate among the RRMS patients which probably causes the bigger activity of the disease.

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