

Evidence Base Dietary Approaches for Multiple Sclerosis

Soodeh Razeghi Jahromi

Assistant professor of nutrition, Department of Clinical Nutrition and Dietetics, Faculty of Nutrition and Food Technology, Shahid Beheshti University of Medical Sciences, Tehran, Iran
MS Research Center, Neuroscience Institute, Tehran University of Medical Sciences, Tehran, Iran

It is commonly accepted that nutrition is one of the possible environmental factors involved in the pathogenesis of multiple sclerosis (MS), but its role as complementary MS treatment is unclear and largely disregarded. At present, MS therapy is not associated to a particular diet, probably due to lack of information about the effects of nutrition on the disease. However, a number of studies about complementary and alternative medicine (CAM) use among MS patients indicate that about 70% of patients with MS try one or more CAM therapies.

Among dietary therapies "a low-fat diet" showed favorable effects. A 34 year open-label trial showed that a very low fat diet (< 15 g/day) plus cod liver oil supplementation would help to preserve functional ability.

There is also an epidemiologic study which proposed Mediterranean diet in MS prevention. Mediterranean diet mainly focuses on healthy dietary approach by encouraging the daily consumption of fruits, vegetables, nuts, and dairy products, weekly intake of fish, poultry, legumes, and egg and restricting red meat and high-fat products.

Since the gut microflora is essential for the proper development and function of the peripheral immune system and its disturbances may impair immune tolerance, supplementation with probiotics in MS patients, received great interests in recent years. A study showed that treating with *Trichuris suis ova* resulted in 34% relative reduction of the mean number of gadolinium enhancing lesions (Gd+) during monthly brain MRI scans, increases in T regulatory cells and a modified Th2 immune response.

A Cochrane review noted a high incidence of malnutrition in patients with MS. Malnutrition might worsen existing symptoms, such as muscle wasting, weakness, fatigue and muscle spasms. In summary it seems that low-fat and Mediterranean diet can be considered as a complementary therapy in MS patients. Probiotic supplementation also showed favorable effects. However, more studies are needed. Also assessing the signs and symptoms of malnutrition and planning a healthy dietary habit is recommended.

Keywords : Multiple Sclerosis, Mediterranean diet , probiotic, very low-fat diet, malnutrition.