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Poster Presentation

The Effect of Biotin as a Therapeutic Agent for Progressive Multiple Sclerosis

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Abstract

Multiple sclerosis is an autoimmune disease caused by damage to the myelin of the nerve cells in the spinal cord and brain, MS was classified into 4 types including: Relasping/remitting (RR) primary/progressive (PP), secondary/progressive (SP), progressive/relapsing (PR). PR MS is one of the severe forms of MS that lead to inflammation associated physical, mental and vision dysfunction. Because these intensive debilitating diseases need urgent intervention researchers vigorously searching many materials that are likely benefit effect for these patients. One of the agents under increasing considerations is Biotin. Biotin is a vitamin B and necessary cofactor for five carboxylase, acts on acetyl coenzyme 7 which enable carboxylase partly in order to increase fatty acids and product energy. In turn it can increase the rate of myelin synthesis. In this review we aimed to investigate literatures in effect of biotin on progressive form of MS. According to articles that reviewed here the Biotin intake at a dose of 300 mg in patients with MS lead to promoting remyelination and increase axon myelination, also it can act as hypoxia reduction and can be improved disturbances seen in optic nerve damage. Also in some cases improved fatigue, dysarthria, swallowing difficulties, gait ataxia, sensory signs and urinary dysfunction. Thus, we can suggest, performing more clinical trial in biotin application in the situation of progressive Multiple Sclerosis and also investigating on efficacy of this agent.

Keywords: Progressive multiple sclerosis, Biotin, Autoimmune disease

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