Therapeutic effect of vitamin D3 in multiple sclerosis patients.


Source
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Abstract

Multiple sclerosis (MS) is an inflammatory disease in which the myelin sheaths around the axons of the central nervous system are damaged. The damage leads to demyelination and scarring as well as a broad spectrum of signs and symptoms. The epidemiological data suggest a possible influence of vitamin D as an immunomodulatory agent on multiple sclerosis susceptibility as well as on clinical course of the disease. We investigated the effects of short-term vitamin D3 therapy on Iranian patients with MS. In a prospective randomized controlled trial study, 62 MS patients received 300,000 IU/month vitamin D3 or placebo as intramuscular injection for 6 months. Our results showed no significant difference between the treatment and the control groups in the expanded disability status scale scores and number of gadolinium-enhancing lesions during the 6-month treatment period. After 6 months, the levels of cell proliferation in the vitamin D treatment group were significantly lower than the control group. Also, the levels of transforming growth factor-beta and interleukin-10 in the vitamin D treatment group were significantly higher than the control group. This result suggests that vitamin D therapy may help prevent the development of MS and could be a useful addition to the therapy.

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