

Role of homocysteine in disease activity of multiple sclerosis

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Background: One of the most common disorders of the nervous system that are created a great challenge for patients, families and society is disease multiple sclerosis (MS) that prevalence of the disease is increasing in worldwide. The cause is unknown, but immune deficiency and viral infections play a key role in its creation. In many recent studies emphasize the homocysteine level and its association with degenerative diseases has been proposed. This study aimed to investigate the role of homocysteine in the active phase of clinical MS was done.

Methods: This paper presents a systematic review of the literature library and new articles on the subject indexed in the prestigious site in recent years.

Results: The study results suggest that homocysteine levels increase in the blood due to poor diet and lack of vitamins B6, B12 and folic acid or genetic defects in homocysteine metabolism pathways and can limit neurotransmitters performance.

The results of Masoud (2009), Ramsaransing (2006), Kararizou (2013), Davis (2013), Ansari (2014) and Zoccollella (2012) indicated between homocysteine and B12 deficiency associated with two mechanisms of vascular and degenerative in MS. However, other researches findings, including Najafi (2012) showed that there is no relationship.

Conclusion: The results of the studies recommend routine evaluation vitamin B12 in patients with MS is not a need for more controlled studies regarding the clinical course of disease.

Keywords: homocysteine, multiple sclerosis, disease activity