The 2nd International Neuroinflammation Congress and 2nd Student Festival of Neurosience

Shefa Neuroscience Research Center, Tehran, Iran, 17-19 April, 2018

The Neuroscience Journal of Shefaye Khatam

Volume 6, No. 2, Suppl 1

Poster Presentation

The Effects of Vitamin A on Inflammatory Factors (CCL2, CCL18, CD14) in Multiple Sclerosis

Mohammad Rahneshin*, Sajjad Sahab Negah

Neuroscience Department, Mashhad University of Medical Sciences, Mashhad, Iran

Published: *17 April, 2018*

Abstract

Multiple Sclerosis (MS) is a complex neurological disease in which neuro inflammation that leads to neurodegeneration _ plays a key role and its prevalence is 2 million in the world. Vitamin A is a fat-soluble vitamin that is multifunctional. One of the important functions is in immune system, both in immunological tolerance and in adaptive immune responses. 264 patients will be enrolled that suffer from MS and divided them into two groups. Group (A) will take interferon beta and Vitamin A and group (B) will take interferon beta and placebo. we will follow them for one year and every six months we will check the inflammatory factors in the serum. In this project, we expect that vitamin A regulate CCL2 (as a chemokine) which means vitamin A will increases amount of CCL2 in serum and then CCL2 will effect on TH cells (stimulate TH2 and TReg) and then IL-10 that is anti-inflammatory cytokine will increase and IL-2 that is pro-inflammatory cytokine will be inhibited by IL-10. We guess if vitamin A increases the amount of CCL2 about 50 pg/ml we can see the expected changes. Based on other researches, we expect that vitamin A regulate the inflammatory factors and then reduce the rate and intensity of relapsing in patients.

Keywords: Multiple Sclerosis, Vitamin A, Helper T Cells

***Corresponding Author:** Mohammad Rahneshin

E-mail: *rahneshin.mohammad@gmail.com*

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