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Poster Presentation

Decreased Serum Levels of Interleukin-35 Among Patients with Relapsing Remitting Multiple Sclerosis

Omid Mirmosayyeb[1, 2], Shervin Badihian[1, 2], Vahid Shaygannejad[1, 3], Parisa Soleimani[1, 2], Navid Manouchehri[1, 2], Zahra Samee[1, 2], Nafiseh Esmaeil[4*]

[1]Isfahan Neurosciences Research Center, Alzahra Research Institute, Isfahan University of Medical Sciences, Isfahan, Iran
[2]Students Research Committee, School of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran
[3]Department of Neurology, School of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran
[4]Department of Immunology, School of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran

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Abstract

The regulatory role of interleukin-35 (IL-35) in the immunopathogenesis of multiple sclerosis (MS) is suggested in very few studies. We aimed to measure serum levels of IL-35 among clinically isolated syndrome (CIS) and relapsing-remitting MS (RRMS) patients and evaluate the associations between this cytokine and the disease clinical course. This cross-sectional study was conducted during 2017 in MS Clinic of Kashani hospital, Isfahan, Iran. Forty patients with the diagnosis of CIS and RRMS according to McDonald criteria were included in the study, as well as 40 healthy controls. Also, data regarding clinical course of the disease was collected from cases. The levels of IL-35 in the serum of all subjects were determined by ELISA. Serum levels of IL-35 were reduced (p = 0.003) in RRMS in comparison with healthy controls. Moreover, the mean serum levels of IL-35 among new cases (diagnosed within 6 months before the study) were decreased compared to healthy controls but it were not statistically significant (P=0.059).The mean serum levels of IL-35 were significantly higher in new cases compared with other cases (p=0.048). We found decreased serum levels of IL-35 among RRMS patients compared to the healthy controls. We provide a view of the possible role of IL-35 in MS pathogenesis and the potential therapeutic targets in this way.

Keywords: Multiple Sclerosis; Clinically Isolated Syndrome; Relapsing-Remitting Multiple Sclerosis; Interleukin-35

***Corresponding Author:** Omid Mirmosayyeb

E-mail: *omid.mirmosayyeb@gmail.com*

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