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ABSTRACT BOOK

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PT059

Interleukin-35 levels in patients with allergic asthma

Behnaz KARADOĞAN[1], Şengül BEYAZ[2], Aslı GELİNCİK[2], Suna BÜYÜKÖZTÜRK[2], Nazlı ARDA[1,]*

[1] Istanbul University, Institute of Graduate Studies in Sciences, Department of Molecular Biology and Genetics, Istanbul, Turkey

[2] Istanbul University, Istanbul Faculty of Medicine, Department of Internal Medicine, Division of Immunology and Allergic Diseases, Istanbul, Turkey.

**Correspondence: narda@istanbul.edu.tr*

Abstract

Background/aim: Interleukin-35 (IL-35) is a heterodimer cytokine that has the ability to suppress the immune response and maintain homeostasis. To date, many inflammatory and autoimmune diseases have been linked to IL-35 deficiency. In this study, we measured the serum levels of IL-35 in allergic asthma patients. We also compared the serum levels of IL-35 between patient subgroups with different levels of asthma control.

Materials and methods: Allergic asthma patients (n=120) and healthy individuals with no history of allergy (n=120) were included in this study. Patients received no systemic corticosteroids four weeks prior to blood sampling. Study subjects were divided into 3 groups, according to their asthma control test (ACT) as totally controlled (TC), partially controlled (PC) and uncontrolled (UC). Interleukin 35 levels in serum samples were measured by enzyme-linked immunosorbent assay (ELISA). Differences in variables were analysed by using appropriate statistical tests, including ANOVA and unpaired t test.

Results: Our findings showed an increased serum level of IL-35 in the patients compared to healthy subjects, however, this difference was insignificant (P >0.05). Interleukin levels were also higher in patients within TC and PC groups than UC patients, although this difference was not statistically significant (P >0.05).

Conclusion: Although there are a number of reports indicated that significant increase or decrease in IL-35 in allergic asthma patients, statistically insignificant difference was detected in this study between the patients and healthy subjects as well as between subgroups. Thus, serum level of IL-35 seems to be ambiguous in allergic asthma, and further studies are needed for a better understanding of its role in this disease.

Keywords: Interleukin-35, allergic asthma, ELISA

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