

**3023 Interleukin-9 and Interleukin-33 Levels in Children with Asthma**

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Background: As of possible role of Interleukin-9 (IL-9), a pro-inflammatory and Th2 cytokine, and Interleukin-33 (IL-33), a member of IL-1 cytokine family, in pediatric asthma, this study was performed to measure IL-9 and IL-33 serum levels in pediatric patients with asthma.

Methods: In this study, 61 patients with asthma and 63 healthy age- and sex- matched subjects were enrolled. Serum levels of IL-9 and IL-33 were measured in asthmatic patients and healthy subjects by sandwich ELISA.

Results: Serum IL-9 level was significantly higher in patients group, compared to the controls ($p=0.03$). In addition, patients with severe asthma had significantly higher serum IL-9 levels, compared to the controls ($p<0.001$). Mean serum level of IL-33 asthmatic children was also significantly higher than the controls ($p=0.02$), which also showed statistically significant associated with the severity disease ($p=0.02$).

Conclusions: Elevated serum levels of IL-9 and IL-33 were found to be associated with pediatric asthma and the disease severity.