

Assessment of Serum Level of Interleukin-37 in Asthmatic Children at Benha University Hospital

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Asthma is a complex inflammatory disease, characterized by airway hyperresponsiveness, inflammation, and reversible airway obstruction. Interleukin-37 (IL-37), functions as a fundamental inhibitor of innate inflammatory and immune responses, and it is an important cytokine in the control of asthma by suppressing the production of inflammatory cytokines. This study aimed to reveal the possible role of IL-37 in asthma through assessment of its serum level in controlled and uncontrolled asthmatic children as compared to controls. Serum IL-37 level was measured by ELISA. The serum level of IL-37 was significantly lower in patients than controls and in uncontrolled than in controlled asthma ($P<0.001$). It is concluded that there is negative relation between serum level of IL-37 and asthma, which is more evident in uncontrolled asthmatic group, this observation may support the protective role of IL-37 in immune pathogenesis of asthma.