

PSORIASIS

DECREASED INTERLEUKIN-35 SERUM LEVELS AND ALTERED INTERLEUKIN-35 EXPRESSION IN PATIENTS WITH PSORIASIS VULGARIS

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BACKGROUND: Interleukin-35 (IL-35) has been implicated as a Anti - inflammatory cytokines in the pathogenesis of various inflammatory and autoimmune diseases. However, information about IL-35 in psoriasis vulgaris (PV) remains still unknown.

OBJECTIVE: Herein, we investigated the expression level of IL-35 in serum, skin lesions, peripheral blood mononuclear cells (PBMCs) and CD4+ T cells in patients with psoriasis, and the relationship between IL-35 and cytokines secreted by PBMC.

METHOD: Serum levels of IL-35 were detected by enzyme-linked immunosorbent assay (ELISA). The expression of IL-35 in skin lesions was evaluated by immunohistochemistry. The expression of IL-35 in PBMCs was evaluated by polymerase chain reaction (PCR). The expression of IL-6, IL-10, IL-17, TNF- α , IFN- γ in PBMCs and CD4+ T cells were evaluated by real-time quantitative polymerase chain reaction (rt-PCR).

RESULTS: Serum levels of IL-35 in patients with PV but not atopic dermatitis (AD) were significantly lower than those in normal controls, and after treatment, the level of IL-35 decreased significantly. The mRNA expression of IL-35 in skin lesions was decreased in PBMC. In addition, IL-35 can down-regulated IL-6 and IL-17 expression but not IL-4, IL-10, TNF- α and IFN- γ at mRNA levels in both PBMC and CD4+ T cells.

CONCLUSION: This study provides first observations on the association of IL-35 with PV in patient. We suggest that IL-35 may be an important mediator of inflammation through inhibit the production of IL-6 and IL-17 and may be a new treatment of psoriasis





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