



PSORIASIS

## ENHANCED SERUM INTERFERON-LAMBDA 1 INTERLEUKIN (IL)-29 LEVELS IN PATIENTS WITH PSORIASIS VULGARIS (PV)

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Background: Interferon (IFN)- $\lambda$ 1, also named interleukin (IL)-29, is a new member of Type III IFN or IFN- $\lambda$  family. IL-29 plays an important role in the pathogenesis of many types of autoimmune and inflammatory diseases.

Objective: to study the role of IL-29 in the pathogenesis of psoriasis vulgaris (PV).

Methods: we detected the serum levels of IL-29 in patients with PV and controls by sandwich enzyme-linked immunosorbent assay (ELISA). The effects of IL-29 on the expression of cytokines, such as IL-6, IL-17, IL-8, IL-4, IL10, interferon (IFN- $\gamma$ ) and tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ), in PBMCs and HaCat cells were determined by real-time quantitative PCR.

Results: our data indicated that serum IL-29 levels were significantly elevated in patients with PV when compared with atopic dermatitis (AD) patients and control group. Moreover, Serum levels of IL-29 were closely associated with the severity of PV. Furthermore, IL-29 up-regulated the mRNA expression levels of IL-6, IL-17 and TNF- $\alpha$  in PBMCs from PV patients. In addition, IL-29 enhanced the IL-6 and IL-8 expression from the HaCat cells.

Conclusion: this study provides first observations on the association of IL-29 and PV, and showed the elevated IL-29 serum levels. We suggest that IL-29 may play a role in the pathogenesis of PV.

