Role of Interleukin 23 in the Pathogenesis of Psoriasis

Thesis

Submitted for partial fulfillment of MD in Dermatology.

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Abstract

Key words: Psoriasis and Interleukin 23.

Background: Psoriasis is a common inflammatory skin disease characterized by abnormal keratinocyte proliferation, increased angiogenesis and inflammation. The pathogenesis of psoriasis is still unclear. Interleukin 23 (IL 23) plays a role in T cell immune responses. IL 23 is produced by activated dendritic cells, macrophages and keratinocytes. IL-23 amplifies and stabilizes a new CD4 (+) T-cell subset, Th17 producing IL-17. Th17 cells are highly pathogenic and lead to the development of inflammation and severe autoimmunity.

Aim of work

Methods: 20 patients with psoriasis vulgaris in the age group (17-60) years were included in this study. Also 20 normal volunteers were included. Two punch biopsies were taken from every patient one from the lesion and one from non lesional area. One puch biopsy was taken from each control. Il 23 was measured using a real time PCR.

Results: Our data revealed that the level of IL 23, in the patient group, was higher in lesional areas than in non lesional areas and this difference was statistically significant (p value <0.05) and also it was higher than the control group. The level of IL 23 in non lesional areas in the patient group was slightly higher than its level in the control group and this was statistically non-significant.

Conclusion: The level of Il 23 in psoriatic lesions was high compared to its level in non lesional areas. This may suggest a possible role of IL 23 in psoriasis.