

Effect of narrow-band ultraviolet B on the level of interleukin-17 in psoriasis patients

Background

Psoriasis is a chronic inflammatory skin disease that is thought to be mediated by T helper (Th1) cells. Interestingly, recent advances by cellular immunologists have led to the identification of a new distinct type of T cell called Th17 cells that may play an essential pathogenic role in psoriasis.

Objective

The present study was planned to study the effect of narrow-band ultraviolet B (NB-UVB) on serum levels of interleukin-17 (IL-17) in psoriasis patients.

Patients and methods In this study, we estimated serum levels of IL-17 in 20 psoriatic patients before and after 36 sessions of NB-UVB and in 10 healthy controls using enzyme-linked immunosorbent assay, correlating their levels with disease severity, which was calculated using the psoriasis area severity index.

Results

The mean serum levels of IL-17 were significantly elevated in patients with psoriasis in comparison with those in normal controls. Moreover, there was significant elevation in mean serum IL-17 levels of psoriatic patients before treatment compared with those after treatment.

Conclusion

Psoriasis is a Th1 and Th17-mediated inflammatory skin disease, and NB-UVB has a significant inhibitory effect on both serum levels of IL-17 and psoriasis area severity index scores.

Keywords:

narrow-band ultraviolet B, psoriasis, serum interleukin-17