Correlation between serum IL-17A level and SALT score in patients with alopecia areata before and after NB-UVB therapy

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Abstract:

Background: There is strong evidence that alopecia areata is of immunological background; Interleukin-17 (IL-17) is a Th17 pro-inflammatory cytokine that has been allied to the pathogenesis of different autoimmune and inflammatory diseases. Objective: This study aimed to measure serum IL-17A in patients with alopecia areata, and to study associations between IL-17A levels and disease severity before and after Narrowband-Ultraviolet B (NB-UVB), patient gender and age. Methods: Twenty patients with AA of the scalp were treated with (NB-UVB), and 15 healthy subjects age and sex matched were enrolled as controls. Patients were assessed clinically by SALT score. Assay of serum levels of IL-17A by ELISA was done in patients and controls. Results: The mean level of IL-17A was (15.63 ± 10.89 Pg/mL) in AA patient group, and (16.50 ± 5.02 Pg/mL) in control group. No statistically significant correlation was detected between SALT score and IL-17A level before (NB-UVB) treatment while a significant negative correlation between SALT score and IL-17A level was observed after treatment (r = .448, P = .047). Mean SALT score for patients was (14.03 ± 13.48), and correlated positively with age (r = .446, P = .049). Conclusion: Although (NB-UVB) is an immune-modulatory type of treatment for alopecia areata of mild efficacy especially if it is used alone, it has shown significant decrease in serum IL-17A level among patients, and correlation to disease severity.

Keywords:

alopecia areata, IL-17A, narrowband-ultraviolet B

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