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# Correlation between serum IL-16 and atopic dermatitis

**H.Y. Zheng, L. Zhao, C.X. Li and S.H. Li**

Department of Dermatology, Shandong Jining First People's Hospital, Jining, Shandong, China

Corresponding author: S.H. Li
E-mail: lishaohuijn@126.com / lshhui168@163.com

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**ABSTRACT.** This study aims to investigate the correlation between allergic sensitization of atopic dermatitis (AD) patients and their serum interleukin (IL)-16 levels. AD patients, healthy volunteers, and patients with psoriasis (N = 80, 35, 20, respectively) were tested for serum IL-16 and total and specific IgE levels by enzyme-linked immunosorbent assay, along with eosinophil counts. Serum allergen-specific IgE levels were determined, and skin-prick testing conducted in a subgroup of 45 AD patients. Based on specific IgE levels, AD patients were categorized into non-sensitized group 1 and sensitized group 2. Furthermore, they were sorted as non-sensitized group A and sensitized group B based on skin-prick results. Next, the serum IL-16 and total IgE levels in these subgroups were determined. Compared to levels in healthy volunteers and psoriasis patients, the serum IL-16 levels in AD patients were significantly higher ($P < 0.001$). Additionally, total serum IgE levels were significantly correlated with serum IL-16 levels and eosinophil counts. However, no correlation was observed between serum IL-16 levels and eosinophil counts. The serum IL-16 and total IgE levels in group 2 were also significantly elevated ($P < 0.001$) in contrast to those in group 1. Although we did not observe any significant difference between serum IL-16 levels in groups A and B, the total serum IgE level in group B was significantly higher than that in group A ($P < 0.001$). Thus, allergic

 

sensitivity in AD patients correlates with total serum IgE as well as serum IL-16; the correlation with IL-6 is weaker.

**Key words:** IL-16; Atopic dermatitis; Psoriasis

 