

Letter to the Editor

Does the severity of atopic dermatitis correlate with serum IgE levels?

Editor,

We read with interest the paper by Laske and Niggemann (1) in which 345 children with atopic dermatitis were investigated regarding the severity of their disease assessed by SCORAD index and total IgE levels. This provides useful data in this troublesome condition. We raise the following two issues.

The authors state that the correlation between SCORAD score and total serum IgE levels was statistically highly significant, on the basis of the p-value (< 0.001). However, the scatter diagram depicts a wide range of IgE (< 2.0 –13,155 kU/l), at all levels of SCORAD score. $R = 0.31$ is a weak correlation and generally it is considered that more than 0.4 is meaningful. This appears to greatly limit its potential clinical value.

Secondly, the authors report that, mean serum IgE levels in children within the high SCORAD quartile was significantly higher than in the low SCORAD quartile (5443 kU/l vs. 488 kU/l; $p < 0.001$). Although a mean is the most common measure of position, it is very sensitive to outlying values and it can be quite misleading

to compare distribution of skewed data using the mean. An alternative measure of position, in this situation, is the median, and it is particularly useful when the distribution is skewed (2). We assume that these data were non-parametrical as a result of the log range used.

We would be interested to learn the authors' view of our comments, especially because their conclusion that 'serum IgE levels correlate with the degree of eczema', could result in a significant increase in the routine measurement of IgE in children with atopic dermatitis.

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References

1. LASKE N, NIGGEMANN B. Does the severity of atopic dermatitis correlate with serum IgE levels? *Pediatr Allergy Immunol* 2004; 15: 86–8.
2. CAMPBELL MJ, MACHIN D. (1999) *Medical Statistics. A Commonsense Approach*. 3rd edn. London, UK: John Wiley and Sons Limited.