

Letter to the editor

Mite-specific IgE cannot be used as a surrogate for mite exposure – where is the evidence?

In a paper published in a recent issue of *Allergy* (1), we compared, in a group of 40 mite-sensitive patients, the levels of mite-specific IgE (measured by RAST-CAP grades 0–6) and the level of mite group I allergen in mattresses. We demonstrated a high correlation between both variables. Subjects with a RAST-CAP of grade 3 or more had a 77% probability of being exposed to a high (i.e., $> 10 \mu\text{g/g}$ of dust) mite group I allergen level. In contrast, subjects with RAST-CAP grades 0, 1, or 2 had a 77% probability of not being exposed to such high levels. Thus, we concluded that measurement of serum mite-specific IgE levels could be used in routine prediction of mite exposure.

In a letter to the editor (2), Meijer et al. have challenged this conclusion because they did not find such an association in a group of 25 asthmatic children. We believe that the data they present in Fig. 1 (2) cannot be compared to ours for two reasons. The first discrepancy between their study and ours is that they used Der p I instead of group I antigen level as a measure of exposure. The group I antigen level is the sum of Der p I and Der f I. Obviously, the prevalence of mite species varies between countries, and it may even vary between regions of the same country. Studies investigating mite-allergen exposure in homes (4) or in classrooms (3) have clearly demonstrated large variations in the ratio of Der p I to Der f I exposure. In any event, the group I allergen level is always higher than the Der p I allergen level. Fig. 1 (2) shows that, among the 22 patients with RAST grade 3 or higher (i.e., $\text{RAST} \geq 3.5 \text{ PRU/ml}$), 12 (i.e., 54%) were exposed to Der p I allergen levels higher than $10 \mu\text{g/g}$ dust. This is not so different from our finding of 77%; moreover, had Meijer et al. used the group I antigen level instead of Der p I, this percentage would have been higher.

The other fact which prevents us from drawing conclusions from Meijer et al.'s study is the narrow range of variation of house-dust-mite-specific IgE. From Fig. 1, it can be computed that all but two patients had a RAST grade of 3 or higher. Under such circumstances, it is clearly not possible to compare mite-allergen exposure in patients with low and high RAST grades! In our paper (1), patients were almost equally distributed among low and high RAST grades.

Because we believe that the issue under discussion has important clinical relevance, we invite Meijer et al. to expand their data and reanalyze them, taking into consideration the two issues we have raised.

References

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2. MEIJER GG, POSTMA DS, VAN DER HEIDE S, KOËTER GH, VAN AALDEREN WMC. Mite-specific IgE cannot be used as a surrogate for mite exposure [Letter]. *Allergy* 1995; 50: 532.
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