

Letter to the editor

Mite-specific IgE cannot be used as a surrogate for mite exposure

De Lovinfosse et al. recently (Allergy 1994; 49: 64–6) compared levels of mite-specific IgE (measured by RAST grade (0–6) with the level of mite group I allergen in mattresses ($\mu\text{g/g}$ house-dust mite) and found a significant correlation between both variables ($r=0.57$; $P=0.001$). Those with RAST grade ≥ 3 had a 77% probability of being exposed to more than $10 \mu\text{g/g}$ mite allergen; those with RAST grade ≤ 2 had a 77% probability of not being exposed to such high levels. From these findings, they concluded that serum mite-specific IgE could be used in routine prediction of mite exposure. We are concerned about the extrapolation of their findings for clinical and research purposes.

Therefore, we have reviewed data on 25 asthmatic children with isolated allergy to house-dust mite (HDM), all treated with maintenance therapy of inhaled corticosteroids. We collected dust samples from mattresses from September to November. The median value of *Der p* I was 6647 (range: 1431–320 000 ng/g); the median mite-specific IgE was 38 (range: 1.11–377 PRU/ml). We found no significant correlation between serum mite-specific IgE and *Der p* I exposure in the mattresses ($r=0.07$; $P=0.76$; Fig. 1). Furthermore, no significant difference in HDM exposure was observed between those with RAST < 17.5 PRU/ml ($n=7$) and those with RAST > 17.5 PRU/ml ($n=18$) (5422 (4449–32 933) vs 8665 (1431–320 000 ng/g *Der p* I, $P=1.0$). A comparable result was found for those with RAST < 3.5 PRU/ml ($n=2$) compared with > 3.5 PRU/ml ($n=23$).

As can be seen in Fig. 1, there were even cases with high RAST to HDM but low (< 2000 ng/g fine dust) *Der p* I levels in their mattresses. The results show once more that group findings and associa-

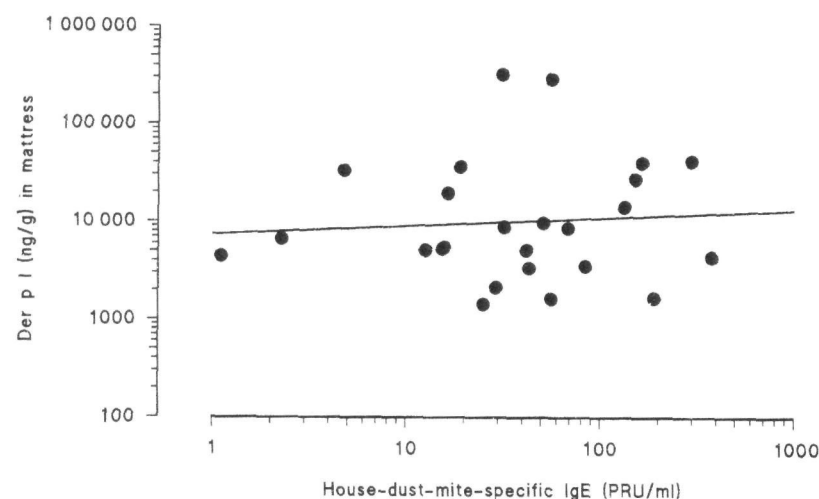


Fig. 1.

tions cannot easily be extrapolated to individual predictions. Moreover, associations are probably affected by various factors (e.g., therapy), as may have been the case in our study.

Therefore, we strongly advise clinicians not to use the level of serum specific IgE as a surrogate of the level of HDM exposure in allergic asthmatic children.

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