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Control of house dust mit...



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Control of house dust mite in managing asthma: Effectiveness of measures depends on stage of asthma [Letters]

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EDITOR-In their meta-analysis Gotzsche et al concluded that measures to control house dust mites are not clinically effective in patients with asthma who are sensitive to mites. [1] In the accompanying editorial Strachan commented that this was probably because several control measures used in the included studies did not result in a (relevant) reduction in concentrations of house dust mite allergens. Improvements in clinical condition are consequently not to be expected. Some studies in the meta-analysis found clinical effects while others did not. [1] This may not be a result of effectively reducing allergen concentrations but of measuring different groups of asthmatic patients in different stages of disease. We believe that early treatment of mild asthma might have more impact than treating mild to moderate asthma.

We investigated the (clinical) effects of a combined allergen avoidance strategy (use of covers on mattresses and bedding that are impenetrable to house dust mites and use of benzyl benzoate (Acarosan) on living room and bedroom floors) in two groups of subjects allergic to house dust mites. One group had some early signs of asthma [2] but no diagnosis and the other had a confirmed diagnosis of mild asthma. [3] In the subjects without diagnosed asthma, peak flow rates and symptom scores stabilised during follow up (Figure 1 (top)), suggesting that the onset of asthma may have been delayed. The subjects with mild asthma showed no clinical effects during the same follow up (Figure 1 (bottom)), although allergen concentrations were reduced, especially on mattresses (10-fold, $P=0.0001$). [3]

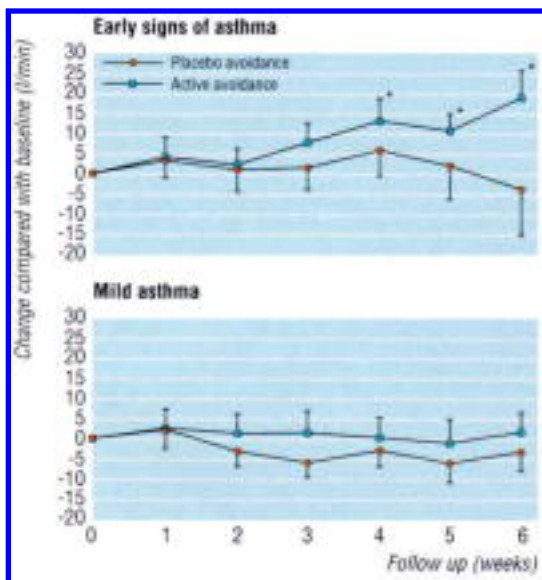


Figure 1. Morning peak flow rates in subjects with allergy to house dust mites and early signs of asthma or confirmed mild asthma during placebo and active strategies to avoid allergens. *P<0.05

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We hypothesise that allergen avoidance has more impact as an early preventive measure than as treatment of mild asthma. In established asthma small amounts of allergen may be sufficient to trigger a deterioration in the condition. Furthermore, allergen concentrations will need to be reduced for some time to reverse the already developed process of inflammation. In allergic patients who have not yet developed asthma a reduction in allergen load might prevent further development of the disease as the process of inflammation can probably be slowed down at this early stage. The fact that avoidance measures are more effective in children than in adults supports this idea. [4] Thus allergen avoidance measures need to be applied in an early stage of the disease (secondary or even primary prevention [5]) to be clinically effective.

In summary, we believe that the conclusion of Gotzsche et al covers only one aspect. Measures to control house dust mite might be effective in patients in the early stages of asthma and might therefore be recommended as an early intervention.

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