

Letter to the editor

House dust mite control measures for asthma

The recently published paper in your journal by Gotzsche and Johansen (1) has caught our attention. We would like to add some comments.

In this newly updated meta-analysis on house dust mite control measures for asthma, 44 trials with a total of 3302 subjects were included. When compared with the last meta-analysis published by the same authors in 2004 (2), the newly added studies were seen to be based on reduction methods concentrated only on mattresses and bed covers. It has been demonstrated by Frederick in 1997 (3) and more recently by Woodcock et al. (4) that house dust mite reduction measures performed only on the beddings were not able to decrease the mite-allergen exposure. Consequently, it is difficult to state that mite-allergen reduction is not clinically efficient and should not be recommended as it has been showed that these methods are not able to decrease significantly the mite-allergen exposure.

It is surprising, that the two multifaceted allergen-reduction studies (5, 6) have not been taken into consideration for this meta-analysis as the conclusion of the previous meta-analysis suggested that

global allergen reduction had to be performed (2). These two studies, which gathered 937 children for the first one (5) and 274 for the second one (6), demonstrated the efficacy of global allergen reduction on allergen exposure and on clinical outcomes in moderate to severe asthma. In the first study published by Morgan et al. in 2004 (5), the reduction of allergen exposure was obtained 1 and 2 years after the intervention for *Dermatophagoides farinae* (Der f 1) in the bed and on the bedroom floor and for *Dermatophagoides pteronyssinus* (Der p 1) and cockroach on the floor. A significant reduction of days with symptoms was also obtained when compared with the control group and the reduction of dust mite (Der f 1) and cockroach allergen levels on the bedroom floor was significantly correlated with reduced complications of asthma. In the second multifaceted study published in 2005 by Krieger et al. (6), it was also demonstrated that global reduction measures were clinically more efficient than single reduction measures.

Moreover, these two studies (5, 6) clearly demonstrated the role of indoor technicians, performing home visits to

achieve a global allergen reduction, and confirmed the results of the French study (7). Brandt et al. (8) underlined also very recently the role of indoor technicians and recommended that public health programs should consider the use of trained field workers such as medical indoor environment counselors to prevent the progression of allergic asthma and rhinitis.

In conclusion, this last meta-analysis by Gotzsche and Johansen on house dust mite control measures for asthma clearly demonstrated that specific house dust mite control measures for asthma only concentrated on the bedding were not efficient on allergen exposure and clinical symptoms. So, we think that it is not yet useful to perform every 4 years a new meta-analysis based on 'single' mite-allergen reduction measures for asthma and suggest for the next meta-analysis to include multi-faceted studies.

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