Correspondence

Vitamin D and asthma

To the Editor:

I read with interest the study by de Groot et al[1] reporting that vitamin D supplementation reduces eosinophilic airway inflammation in adult subjects with nonatopic asthma. However, I am concerned about some issues that may have affected the validity of the results. First, the main conclusion of this study is based on only 4 subjects in the "high eosinophil group" (sputum eosinophil count ≥ 26.2%) whose sputum eosinophil counts were decreased by vitamin D compared with no change in 8 subjects receiving placebo (legend to Fig 2). How reproducible are the investigators' sputum eosinophil counts? In other words, it would be important to know what is their intrasubject variability of repeat measurements of sputum eosinophils. How confident are the investigators that the change in sputum eosinophil counts in those 4 subjects did not occur by chance?

Second, the authors define the study subjects as nonatopic on the basis of "no allergic symptoms at any time and absence of specific IgE to common inhalation allergens and fungi." They report the range of total serum IgE level as 1 to 2110 kU/L in the placebo group and 13 to 117 kU/L in the vitamin D group. About 80% of the subjects[2] with total serum IgE level of more than 100 kU/L and 98% of the patients[3] with serum IgE level of more than 320 kU/L are atopic. Is it possible that some of the study subjects might have been misclassified as nonatopic?

Did the authors evaluate whether there was any correlation between serum vitamin D levels and Asthma Control Questionnaire scores at baseline? We have recently shown that in elderly subjects with uncontrolled asthma (Asthma Control Test score ≤19), serum vitamin D levels were lower than in subjects with controlled symptoms.[4]

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Conflict of interest: M. Columbo declares that he has no relevant conflicts of interest.

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