

SUMMARY

Atopy is important in monitoring and following asthma. The present study aimed at determining frequency of atopy and density of mite allergens in-house dust in the patients with asthma and examining the relationship of these with characteristics of the houses.

Ninety eight patients with asthma presented to outpatient clinic of department of respiratory diseases between March 2007 and June 2007 were assessed. In-house characteristics and present symptoms of the patients were assessed by a questionnaire. Dust samples obtained from the house by standard method were examined microscopically for presence of mites. Furthermore, mite group 2 allergen levels were determined quantitatively by ELISA method.

Dermatophagoides pteronyssinus sensitivity was found in 62.2% and *Dermatophagoides farinae* sensitivity in 69.9% of 54.1% of the patients in whom presence of atopy was found. In 57 (58.2%) of the patients, house dust mite was found by microscopic method. In 53 (54.1%) of them, detectable levels of mite group 2 (Der p 2 and Der f 2) allergen were found. In the present study, the lowest measurable limit for mite group 2 allergen level was 0.125 ng/ml with the highest allergen level detected by our method being 35.00 ng/ml. Frequency of asthma attacks in the last one year and waking up with dyspnea in the last one year was higher in the subjects living in the houses with detectable levels of mite group 2 allergens ($p < 0.05$). Statistically significantly higher levels of mite group 2 allergens were found in the subjects with such characteristics as living in rural areas, presence of mold in the house, presence of moisture in the house, using stove as a heating tool in the house, living in the houses not light and sunny and living in the old buildings. Only the factor of number of people living in the house being 3 or more was found to be significant when these factors were evaluated for finding mite group 2 in house dust by logistic regression model.

The present study measured levels of mite allergens in house dust of the patients with asthma living in Aydin City in Turkey and examined the relationship of levels of mite allergens with symptoms of asthma and in-house characteristics. Mite allergen was found in house dust in more than half of the subjects by quantitative ELISA method. Evaluation of in-house characteristics of the patient was performed for the first time in our region as a part of asthma treatment plan.

Key words: *Asthma, atopy, house dust mites allergens, ELISA*