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Evaluation of Allergic Sensitivity of Asthma and Allergic Rhinitis Diagnosed Patients in Bursa Province

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Objectives: The aim of this study was to evaluate the sensitivity of patients with asthma and/or allergic rhinitis in Bursa province.

Methods: In April 2018-August 2018,572 patients who underwent skin prick test (SPT) were diagnosed with asthma and/or allergic rhinitis in Uludağ University School of Medicine, Department of Immunology and allergic diseases outpatient clinic were retrospectively evaluated. SPT includes house dust mites (Dermatophagoides Pteronyssinus, Dermatophagoides Farinae), Acaris siro, grass and grass/weed mixes, wild grass and tree mixtures, birch tree, olive tree, oak tree, mushroom mixes, cat and dog dander, latex, cockroach allergens were used with ALK standardized allergen extracts. Early skin reaction was measured in 20 minutes after epidermal puncture through the allergen drop with lanset.

Results: In the present study, there were 302 patients with asthma in 572 patients that applied to our outpatient clinic and prick tested. The mean age of the patients was 41.4±13.6 years. There were 253 patients diagnosed with asthma and allergic rhinitis, 191 (75%) were female and the mean age was 43.7±13.7, 49 were diagnosed with asthma alone, 43 (87%) were female and the mean age was 38.3±13.6. A positive response was observed against at least one aeroallergen in the prick test (52%) of 159 asthmatic patients and 120 (75%) were female. Allergic rhinitis was associated with 146 (91%) of the patients with atopic asthma. There was a positive response to only one aeroallergene in 34 (21%) of 159 patients with asthma diagnosis and positive response to more than one aeroallergene in 125 (79%). Most house dust mites were detected(54%), followed by grass/weed mixture (37%) and place grass mixes (35%). The number of patients diagnosed with asthma and allergic rhinitis was 146, 108 (73%) were female. Most household mites were detected (56%) followed by grass/weed mixture (38%), and grass mixes (36%). The number of patients with only allergic rhinitis diagnosis and susceptibility to at least one aeroallergen in prick test was 164, 108 (65%) were female. The highest sensitivity was found in the grass/weed mixes (46%) followed by house dust mite (43%) and weed mixes (39%).

Conclusion: Patients with asthma and allergic rhinitis, susceptibility to house dust mite was most frequently detected. Only the individuals with allergic rhinitis were most frequently susceptible to a grass/weed mixes. Control and prevention of internal allergen allergies are important in providing symptom control for atopic individuals. The province of Bursa has an altitude of 155 m, with an average relative humidity of 69%. The humidity rate of Bursa province is above 50%, it facilitates the growth of mites in indoor environments. In patients with allergic asthma and/or rhinitis, the study of the patient about environmental allergens and taking allergen prevention measures will have an important role in disease control.

Keywords: Asthma, allergic rhinitis, allergen