SUMMARY

The aim of our study was to find out exercise-induced bronchoconstriction in the patients who had asthma , allergic rhinitis and asthma-allergic rhinitis. Exercise-induced bronchoconstriction is observed in 40-90% of the asthmatic patients, in about 40% of the patients who have allergic rhinitis and in 3-11% of the healthy children.

Total 30 asthmatic patients, 32 patients with allergic rhinitis, 20 patients with asthma-allergic rhinitis followed by Adnan Menderes University Pediatric Allergy Clinic and 31 healthy controls were included to the study.

Respiratory function test was performed with spirometry before the exercise. All the groups had tradmill exercise test according to the Bruce protocol, for finding out exercise induced bronchial hyperactivity. After this exercise all had respiratory function test at the minutes 1-3-6-10-15-30-60. The test was accepted as significant when there was at least 15% decreased in FEV1 or PEF or at least 25% decreased in $FEF_{25-75.}$

Exercise induced bronchoconstriction was detected in 50% of asthmatic patients, in %34,4 of allergic rhinitis, in 35% of asthma-allergic rhinitis and in 3,2% of healthy controls.

Statistical analysis had been made with SPSS 10.0 program. χ^2, Fisher's Exact Test and Kruskal- Wallis test was used.

We found out that, the most important parameter which had a positive effect on respiratory function test was the body length.

Breast milk feeding was not found to not have benefits on decreasing exercise induced asthma.

Passive smoking did not have significant increasing effect on exercise induced bronchoconstriction.

Ig E and eosinophil levels of the groups who have exercise induced bronchoconstriction and who has not exercise induced asthma do not have significant difference.

No significant difference was found between the groups having EIB and not having EIB.

Obesity did not affect exercise induced asthma in the group of asthma and allergic rhinitis however obesity had minimal negative effect in the group of asthma-allergic rhinitis.

In conclusion, incidence of exercise in asthma , allergic rhinitis and asthma-allergic rhinitis was found higher than the control group. Exercise provocation test with treadmill must be performed in the diagnosis of exercise induced bronchoconstriction. Bronchial

hyperreactivity was observed in patients with allergic rhinitis independent of airway tractus symptoms.

Pre-exercise respiratory function test and respiratory function test after exercise at the minutes 1-3-6-10-15-30-60 on treadmill are necessary to diagnosis bronchoconstriction and bronchial reactivity at earlier period.

Key words: Asthma, allergic rhinitis, exercise-induced bronchoconstriction