

THE ANALYSIS OF THE EXHALED NITRIC OXIDE IN A GROUP OF PATIENTS WITH ASTHMA, AGED 3 - 18.

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Introduction: The measurement of nitric oxide (NO) is a simple and noninvasive diagnostic test, which enables the precise determination of the condition of respiratory tracts. Bronchial asthma is often associated with elevated levels of NO in exhaled air, as an indicator of bronchial hyperresponsiveness.

Objective: The aim of this study was to analyze the results of exhaled nitric oxide examination in a group of patients with hyper responsiveness. The possible correlation between one's sex, age, diagnosed ailments and the outcome of the test was assessed.

Material and methods: Material for retrospective study was obtained from Pulmonology and Allergy Center in Karpacz, where 307 children underwent the examination of exhaled NO, in years 2010-2012. Measurements were performed with Medisoft analyzer FeNO. The obtained data was analyzed with Statistica 10.

Results: The average patient's age was 11,86. The average result of the exhaled NO test was 48,73(ml/sec) with SD 8,06. Girls presented lower amount of exhaled NO than boys. No strong correlation between age and the exhaled NO was discovered.

Conclusion: The results of study confirmed the presence of higher amount of exhaled nitric oxide in patients with bronchial hyperresponsiveness. The elevation of NO concentration was significantly higher in group of boys than in group girls, with no strong correlation with age.

Keywords: respiratory hypersensitivity, airway obstruction, nitrogen monoxide, adolescent