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Title: Use of leukotriene modifiers promotes to decrease bronchial hyperreactivity in bronchial asthma patients

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Body: Background: Clinical studies proved, that leukotriene modifiers have mild and variable broncholytic effect, decrease symptoms, improve lung function and decrease asthma exacerbations. Objectives: This study aimed to investigate the influence of leukotriene modifiers (antagonists of CysL-R1 – montelukast) on bronchial hyperreactivity in steroid-naïve bronchial asthma patients. Methods: 30 steroid-naïve (didn't receive ICS more than 3 months before study) patients, male 9, female 21, in the age ($53,4 \pm 2,3$) years, with ACT score < 20 received montelukast (Lukast) 10 mg OD during 3 months. Salbutamol was allowed as rescue medication. Bronchoprovocative test with physical load (treadmill-test) was performed at the beginning and at the end of the study. Results: Bronchial hyperreactivity (BHR), which revealed in fall of FEV1 on >10% vs basic data after 5 – 30 min after the end of physical load, was revealed in 12 patients. Initially FEV1 fell on 16% on the 5 min after the end of test, with maximal decrease (19,3%) on the 15 min. In 30 min after the end of physical load FEV1 didn't return to the basic data – difference was 9,5%. At the end of study treatment course BHR was revealed only in 9 patients, with maximal fall 11,5% on 15 min after the test, with recovery within 30 min. Correlative analysis showed, that risk of BHR decreased after the permanent course of montelukast therapy, but without statistical significance. Conclusion: use of leukotriene modifiers (antagonists of CysL-R1 – montelukast (Lukast)) decrease BHR in steroid-naïve BA patients.