

THE EFFICACY OF COMBINED THERAPY IN PATIENTS WITH NEUTROPHILIC BRONCHIAL ASTHMA

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Abstract. Background: Issues of neutrophilic bronchial asthma remain unresolved and the investigations of the pathogenesis and treatment of this disease endotype are currently continuing.

The aim of the study: This study aimed to develop the technology of the treatment of the neutrophilic asthma with the use of available drugs in Ukraine.

Methods. The study involved 30 patients with neutrophilic asthma. The first (control) group consisted of 15 patients who received standard therapy with a combination of budesonide and formoterol. The second (main) group consisted of 15 patients who received the treatment according the technology (ultrafine beclomethasone dipropionate, formoterol, tiotropium bromide and additionally for the first 10 days — inhalation of 10.0 % acetylcysteine solution through a nebulizer). All patients were surveyed with the Asthma Control Test (ACT), the Asthma Control Questionnaire (ACQ). The quality of life of patients was assessed by a St. George's Respiratory Questionnaire. All patients underwent spirometry and a 6-minute walking test (6MWT).

Results: In the prescription of complex therapy to patients with neutrophilic asthma clinical and functional efficacy was achieved in 93.3 % of patients. There were observed statistically significant increase in the ACT from (14.3 ± 1.3) to (20.3 ± 0.8) points ($p < 0.05$), a decrease in the ACQ from (2.3 ± 0.2) to (1.1 ± 0.1) points ($p < 0.05$), clinically significant reduction in the number of symptoms from (71.4 ± 5.6) points to (51.3 ± 5.0) points, $p < 0.05$ according to the results of the St. George's Respiratory Questionnaire, and a statistically significant increase in MEF_{50} from (28.9 ± 4.5) % to (41.6 ± 4.2) %, $p < 0.05$, MEF_{25} — from (19.1 ± 2.9) % to (27.6 ± 2.6) %, $p < 0.05$ and FEV_1/FVC from (67.2 ± 3.5) % to (76.1 ± 2.3) %, $p < 0.05$ after 3 months of complex treatment, as well as a statistically significant increase in the number of meters passed in the 6MWT from (266.3 ± 16.2) m to (312.0 ± 14.4) m, $p < 0.05$, reduction of shortness of breath on the Borg scale before test from (2.5 ± 0.3) points to (1.5 ± 0.1) points, $p < 0.05$ and after the test — from (4.1 ± 0.3) points to (3.1 ± 0.3) points, $p < 0.05$.

Conclusions: The technology of treatment of patients with neutrophilic asthma allows to improve the control of the asthma symptoms and quality of life of the patients, bronchial patency at the small airways and reduce fixed bronchial obstruction, as well as increase exercise tolerance.

Key words: bronchial asthma, neutrophilic inflammation, combined therapy.

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