

EFFICACY AND SAFETY OF INHALATION OF HYPERTONIC SODIUM CHLORIDE SOLUTION AND ITS COMBINATION WITH HYALURONIC ACID IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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Abstract. *Introduction.* Chronic obstructive pulmonary disease (COPD) is a serious socio-economic problem and currently occupies one of the leading morbidity and mortality rates in the world. Some patients have complaints of chronic productive cough on the background of regular use of basic inhalation therapy. Mucoactive drugs should be prescribed for this category of patients. The *aim* of the study was to evaluate the efficacy and safety of inhaled hypertonic sodium chloride solution and its combination with hyaluronic acid in patients with stable COPD. *Object and methods of study.* There were included 33 patients aged 40 to 80 years with a diagnosis of COPD and a disease duration longer than 12 months. They had complaints of cough with viscous sputum despite standard inhalation therapy in the same dose for at least the last 4 weeks. *Results and discussion.* After a course of inhalation of 3 % sodium chloride solution the patients showed a significant improvement, evidenced by a reliable decrease in the score of the severity of COPD and the dynamics of respiratory symptoms according to the CAT (by 15.6 %), CCQ (by 13.2 %) and SGRO (by 6.4 %) questionnaires and a decrease in the severity of day and night cough. In patients receiving 3 % sodium chloride solution in combination with 0.1 % sodium hyaluronate solution, significant positive changes were recorded in the CAT (decrease by 10.8 %) and CCQ (decrease by 19.4 %) questionnaires, and there was also a reduction in the symptoms of daytime cough. *Conclusions.* In patients with stable COPD inhalation of 3 % sodium chloride solution alone or in combination with 0.1 % sodium hyaluronate solution for 10 days has a similar positive effect on the manifestations of the disease assessed by validated COPD severity questionnaires, as well as on the severity of daytime cough. Nebulizer therapy with these hypertonic solutions has an acceptable degree of safety and does not adversely affect bronchial patency.

Key words. COPD, nebulizer therapy, hypertonic sodium chloride solution, sodium hyaluronate.

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