

MODIFICATION OF CLINICAL COURSE OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE: A MYTH OR ESSENTIAL REALITY OF PRESENT?

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Abstract

Chronic obstructive pulmonary disease (COPD) remains in the top chart of respiratory diseases affecting mankind, being the most prevalent pulmonary condition and one of major cause of death. Bronchial tree and alveolar structures remodeling, hyperproduction of phlegm, persisting inflammation, microcirculation disturbances, hypoxia, bad habits are the list of factors, leading (if left uncontrolled) to initiation or progression of COPD and development of its complications. Timely diagnostics and management of COPD aimed on preventing of a galloping progression of the disease, is a leading point of interest for healthcare practitioners.

Modification of COPD clinical course is one of outcomes to be reached by a physician in cooperation with a patient. Use of original mucolytic erdosteine, which possesses pleiotropic effects, counteracts multiple pathological mechanisms. Breaking disulfide bonds of glycoproteins improves sputum viscosity and makes phlegm easier to cough up. Anti-oxidant effect is mediated by suppression of lipids peroxidation and alfa1-antitrypsin inactivation, as well as increasing of glutathione level in bronchoalveolar lavage fluid. Important effect is a suppression of pro-inflammatory cytokines synthesis (IL-6, IL-8) and modification of inflammation activity. Data from randomized clinical trial RESTORE have demonstrated the potency of erdosteine 300 mg twice daily taken 1 year as add-on to maintenance COPD therapy in terms of reduction of duration, rate and severity of exacerbations. DELFI clinical study (2020) has confirmed the confidence of leading chest physicians and hospitals of Europe in this molecule.

Key words: chronic obstructive pulmonary disease, erdosteine, modification of course.