OXIDATIVE STRESS AND STRESS-LIMITED MECHANISMS IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE, COMBINED WITH ISCHEMIC HEART DISEASE

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Abstract

The *aim* was to evaluate the condition of lipid peroxidation system of (LPO) and antioxidant protection (AOP) in patients with acute exacerbation of chronic obstructive pulmonary disease (AE COPD) and ischemic heart disease (IHD).

Material and methods. 39 patients (age 54,4 ± 3,1 years) with AE COPD (clinical group B, GOLD II) and concomitant IHD (stable angina pectoris, functional class II were enrolled into the main group. 23 patients with AE COPD without IHD and 29 with IHD without COPD were enrolled into control groups.

Results. In patients from all groups the signs of oxidative stress were revealed (high concentration of serum conjugated diene and malonic dialdehyde; an insignificant increase of catalase and superoxide dismutase activity). In AE COPD/IHD patients the serum concentration of LPO products was higher and AOP enzymes activity was lower than in the patients from the control groups. A stronger negative correlation between the content of peroxidation products and the level of FEV_1 in patients with AE COPD/IHD compared to COPD alone, confirms the impact of concomitant IHD.

Key words: chronic obstructive pulmonary disease, ischemic heart disease, oxidative stress.

Ukr. Pulmonol. J. 2016; 4:47–50.

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