

QUALITATIVE COMPOSITION OF BLOOD LIPOPROTEIDS IN PATIENTS WITH INFLAMMATION OF LOWER RESPIRATORY TRACT AS A RISK FACTOR OF ATHEROSCLEROSIS

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Abstract

The aim: to assess the composition of blood lipoproteins in patients with inflammatory diseases of the lower respiratory tract as a factor of atherosclerosis, as well as the effect of the maintenance treatment (antiseptic and mucolytic compounds) and additional use of L-arginine aspartate in combination on free radical lipid oxidation and the activity of antioxidant defense enzymes.

Methods. We examined 20 patients with acute exacerbation of chronic bronchitis (mean age $(43,0 \pm 1,3)$ years). To evaluate the intensity of lipid peroxidation a protein and lipid peroxidation products were determined in blood serum. Catalase and superoxidodismutase activity was measured using spectrophotometric and spectrofluorometric methods. Blood serum myeloperoxidase activity was determined by means of spectrophotometry.

Results. In patients with exacerbation of chronic bronchitis there was revealed a change in the qualitative composition of blood lipoproteins, which was a risk factor for the development of cardiovascular diseases. The change in the activity of myeloperoxidase and paraoxonase-1 can be used as a marker of the activity of the inflammatory response, involving neutrophils, and the progression of the atherosclerosis, as well as for the evaluation the treatment effectiveness.

The treatment, especially when L-arginine aspartate was used, led to normalization of blood lipoproteins composition and reduction of the risk of cardiovascular complications.

L-arginine aspartate is expedient for use in the complex treatment of patients with acute exacerbation of chronic bronchitis.

Key words: chronic bronchitis, exacerbation, antioxidant system, atherosclerosis.

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