

ELASTASES, CATHEPSIN G IN THE PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

***L. M. Samokhina, V. V. Efimov, P. M. Zubov,
V. I. Blazhko***

Summary

A role of elastases, non-trypsin like proteinase, alpha-1-proteinase inhibitor (alpha-1-PI) (enzyme assay), cathepsin G (immunoenzyme assay) was studied in chronic obstructive pulmonary diseases patients. The decrease of elastase activity and increase of alpha-1-PI elastase inhibitory activity, caused by an inflammatory process and destructive changes in tissues, resulted in loss of muscular weight and force, deterioration of pulmonary ventilation and hypoxia. The increase of cathepsin G concentration in the separate patients confirmed a development and/or progressing of cells, tissues and organ destruction. The correlation of increase of cathepsin G and endothelial elastase levels pointed on the presence of local destructive changes in endothelium of vessels and was caused, most likely, by lower affinity of cathepsin G to elastine in comparison with elastase.