ФУНКЦИОНАЛЬНОЕ СОСТОЯНИЕ НЕЙТРОФИЛОВ ПРИ БОЛЕЗНИ АЛЬЦГЕЙМЕРА
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NEUTROPHILS’ FUNCTIONAL STATE IN ALZHEIMER’S DISEASE
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Alzheimer’s disease (AD) is the most widespread neurodegenerative disease of older age, which is associated with the deposition of amyloid-beta polymerized peptide (consisting of 42 amino-acid residues) in the brain. The microglial phagocytosis disturbance, which is observed during AD, is possibly the key factor in the process.

The research of neutrophils in patients with AD is of special interest due to the pressing problem of finding peripheral markers of AD. Analysis of neutrophils’ functional state in patients with AD is the objective of the present study.

A reliable decrease of neutrophils’ phagocytic activity was established in group of patients with AD in comparison with control group. A reliable increase of leukocytic elastase (LE) enzymatic activity was discovered in neutrophil lysate in AD group compared to control.

The obtained results allow to draw a conclusion that neutrophils’ phagocytic activity decreases during AD. Thus, discovered changes in neutrophils’ functional state can be considered as a potential peripheral AD marker.

Keywords: Alzheimer’s disease; leukocytic elastase; phagocytosis.