

ISCHEMIC POSTCONDITIONING AND ACTIVITY COMPLEMENT COMPONENT C3 IN CEREBRAL ISCHEMIC AND REPERFUSION INJURY

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Introduction: Ischemic postconditioning (IPost) is an effective mechanism to protect the cells from ischemic and reperfusion injury. Activation of the complement system in ischemic and reperfusion brain injury can cause additional damage to healthy tissue. Changes in the activity of C3 complement component in global cerebral ischemia and IPost are unknown.

Purpose: The aim of this study was to quantify the functional activity of C3 component of complement in the serum of rats at different stages of reperfusion after cerebral global ischemia and IPost. Adult male rats Wistar weighing 250-280g were used for this study. Animals were housed in a 12hours/12hours light/dark cycle with free access to water and food. Transient global cerebral ischemia-reperfusion in the rat by reversible occlusion of major vessels, extended from the aortic arch and supplied the brain with blood. With the serum of rats determined The activity of complement component C3 on the second and seventh day of reperfusion period after a ten-minute global cerebral ischemia was determined in serum of rats.

It was shown that reversible 10-minute ischemic brain injury in rats leads to increased activity of C3 component of complement in the first seven days after global ischemia, with the maximal increase in the C3 activity on the 2nd day of reperfusion. IPost leads to a significant increase in the functional activity of complement component C3 on the 7th day of reperfusion.

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Key words: ischemic postconditioning, complement component C3, brain, ischemia, rats.

"MATHEMATICAL MODEL" DIAGNOSIS OF ASTHMA IN YOUNG CHILDREN

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Introduction: The current literature is still a controversial question of the possibility constellation approach to the integrated use of indicators of clinical and immunological examination criteria as early diagnosis of bronchial asthma in children under three years with the presence of airflow obstruction syndrome, as well as the effectiveness of treatment and prognosis of asthma.

Accordingly, **the purpose** of the work was the creation of a mathematical model of asthma in young children, which is necessary for the purpose of a rational treatment strategy in patients with bronchial asthma.

Survey methods: to achieve this goal we carried out a comprehensive clinical and immunological study of 55 children aged 3 years, patients with asthma, which included a thorough investigation of allergic history, clinical signs of expression of broncho-obstructive syndrome, to determine the level of CD4 +, CD8 + lymphocytes, total Ig E, the metabolic activity of the blood eosinophil according to NBT-test,