PREVENTION OF COGNITIVE DISTURBANCES IN PATIENTS OF THE CARDIAC SURGERY PROFILE, OPERATED IN CONDITIONS OF ARTIFICIAL CIRCULATION

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Summary: The article analyzes the current understanding of the causes of the development of brain dysfunction during cardiac surgery performed in cardiopulmonary bypass. Considered therapeutic measures that contribute to the prevention of brain damage, ways to create new cerebroprotective strategies.

Key words: neuropsychiatric complications, extracorporeal circulation.

Introduction: During the past decades, cardiac surgery and cardiac anesthesiology have made significant progress in ensuring patient safety, minimizing the number of complications during operations performed in IC [1; 2]

Purpose of the study To develop measures for carrying out primary prophylaxis in patients with neurological dysfunctions (vascular pathology against the background of comorbidities such as myocardial infarction, TIA, conducting secondary prophylaxis to reduce risk factors and further treatment of postoperative complications of cardiac surgical patients.

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Material and methods: In the study, the object of the study were 1669 patients of youthful (16-21 years old) and mature (41-70 years old) age. Of these, 497 males were examined, 1172 females, with the presence of signs of a concomitant pathology of the heart and blood vessels operated on in IC. During neuropsychological correction in patients, various neurological scales were used: NIHSS stroke, MMSE mental status assessment, the

patient's postoperative severity rating scale — Apache II, SOFA, psychological stress level determination (Schulte tables, Luria).

Research results and their discussion: Analysis of the data on the problem made it possible to note that cognitive dysfunctions that developed in the early and persisting in the late postoperative period were clinically manifested by impaired memory, concentration, and sensitivity disorders. Patients older than 60 years were at risk, as they had on the basis of the data obtained age-related changes in the cerebral circulation.

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Conclusions: Hospital mortality was not. The IR time averaged 107.0 min. All patients underwent reconstructive surgery on heart valves. In 10% of cases, patients without neurological deficiencies at the preoperative stage and in the postoperative period showed transient ischemic attacks. During examination, cognitive impairment, changes in psychomotor activity, sleep disorders, development of personality, anxiety and affective disorders, as well as depression were revealed in patients.

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Bibliography:

1. Moroz V.V. The problem of brain damage during cardiac surgery in cardiopulmonary bypass conditions / Moroz V.V., Kornienko A.N., Mozalev A.S., Parfenyuk A.V., Shakhmaeva S.V. // General Resuscitation. 2008. - IV. - №4. - P.16-20.

2. Kozlov, I.A. Psycho-emotional state and quality of the postoperative period at different rates of activation of cardiac surgery patients / Kozlov IA,

Khoteev A.Zh., Vitkalova TA // Thoracic and cardiovascular surgery. - 2002. - №6 - C.22-26.

3. Levikov D.I. Biomarkers of nervous tissue damage during cardiac surgery / Levikov D.I. Borisov K.Yu., Schrader N.I. // Bulletin of anesthesiology and resuscitation. 2013.- X. - №1. - pp. 38-47.