Postoperative cognitive dysfunction in patients with hypertension

Safarov S.S., Bukhara branch of the Republican Scientific Center for Emergency Aid

Toshev I.I. Bukhara branch of the Republican Scientific Center for Emergency Aid

ABSTRACT

Purpose of the study is to limit manifestation and the prevalence of cognitive disorders in patients with hypertension after surgical interventions performed under conditions of general multicomponent anesthesia

Keywords: Hypertension, cognitive disorders

Relevance. The most typical manifestations of brain pathology in vascular pathology are cognitive disorders - impaired memory, learning ability, lack of one's own opinion, impaired emotional control and social behavior. Potential risk factors for POCD are also genetic predisposition, and the patient already has cognitive impairment, which occurs in patients with hypertension [2,4,8].
At the same time, to date, there are practically no data on the incidence of cognitive deficit (CD) after surgery in patients with hypertension with various types of anesthesia.

Purpose of the study: o limit _ manifestation and the prevalence of cognitive disorders in patients with hypertension after surgical interventions performed under conditions of general multicomponent anesthesia .[18,19,20]

Material and methods: the study was conducted in the surgical departments on the basis of the Romitan Central District Hospital in the period 2020-2021. Surgery was performed under conditions of general multicomponent anesthesia with artificial lung ventilation.

Testing of cognitive functions was carried out in the observed 54 (31 women, 23 men) patients aged 20 to 59 years . Of these, 20 patients had no history of hypertension (Group 1) and 34 patients with a history of hypertension (Group 2). To achieve this goal, we conducted a study of cognitive function in patients of both groups with various surgical pathologies before surgery and on days 3 and 5 after surgery.

Results and discussion : when assessing cognitive functions in the postoperative period, POCD in patients was verified by worsening the results of the test of "10 words" by at least 20% compared with the initial data. In patients of group 1 at testing before surgery KD was not identified .[6,7,10,11,12 In the second group, KD before surgery was detected in 30 patients (88.2%). At the same time, a decrease in the volume of short-term memory was noted by 20-30%. The clinical picture of early POCD in the patients we observed after surgery was characterized by a more pronounced decrease

in the stability of attention, pace and volume of short-term memory compared with patients without a history of hypertension. If the deterioration of the results of the "10 words" test in patients of the 2nd group before surgery was 20-30%, and after surgery 60-70% respectively.[12,14,16,18,]

Thus, general anesthesia and hypertension as mutually aggravating factors have a significant negative impact on the state of cognitive functions.[2,10,19,22]

Conclusion. The obtained data on the prevalence of POCD in patients with hypertension under general anesthesia will allow on a scientific basis to determine the nature and volume of the required multidisciplinary care for patients in the peri and postoperative period.

Literature

1. Ауторегуляция мозгового кровообращения как ори1. ентир для управления параметрами искусственной вентиляции легких в остром периоде тяжелой черепно-мозговой травмы / Е.А. Козлова, А.В. Ошоров, В.Л. Анзимиров [и др.] // Вопросы нейрохирургии. — 2005. — № 1. — С.24—29.
2. Усмонов, У. Р., & Иргашев, И. Э. (2020). Changes in the morphofunctional properties of thymus and spleen under the influence of mites of different origins. Новый день в медицине, (2), 242-244.
3. Влияние вентиляции легких, контролируемой по объему и по давлению, на результаты лечения больных с геморрагическим инсультом / А.И. Грицан, А.А. Газенкампф, Н.Ю. Довбыш, А.В. Данилович // Вестник анестезиологии и реаниматологии. — 2012. — № 3. — С.26—31.
4. Rizoyevich, U. U., Olimjonovich, J. O., Khusenovich, S. S., & Sharifboevna, K. D. (2021). Changes in the morphofunctional properties of thymus, spleen and lymphoid systemunder the influence of mites of different origins. Web of Scientist: International Scientific Research Journal, 2(12), 533-540.
5. Дифференцированный подход к применению гипер3. вентиляции в остром периоде тяжелой черепно-мозговой травмы в зависимости от состояния мозгового кровотока / А.В. Ошоров, Е.А. Козлова, А.К. Молдоташова [и др.] // Вопросы нейрохирургии. — 2004. — № 2. — С.26—31.
6. Rizoyevich, U. U., Olimjonovich, J. O., Khusenovich, S. S., & Sharifboevna, K. D. (2022). CHANGES IN THE MORPHOFUNCTIONAL PROPERTIES OF THYMUS, SPLEEN AND LYMPHOID SYSTEMUNDER THE INFLUENCE OF MITES OF DIFFERENT ORIGINS. Web of Scientist: International Scientific Research Journal, 3(1), 23-29.
7. Makhmanazarov, O. M. (2022). Risk factors and complications during operations on abdominal organs in patients with cirrhosis of the liver. Eurasian Research Bulletin, 15, 201-207.
8. Khayotovich, K. D., & Ikromovich, T. I. (2022). SPECIFICITY OF RESUSCITATION MEASURES IN PATIENTS WITH ISCHEMIC HEART DISEASE AND ARRHYTHMIA. World scientific research journal, 10(1), 150-155.
9. Хайитов, Д. Х., & Болтаев, Э. Б. (2022). ПОСТРЕАНИМАЦИОН КАСАЛЛИК НАТИЖАСИДА КЕЛИБ ЧИКАДИГАН АСОРАТЛАРНИ БАРТАРАФ ЭТИШДА ЗАМОНАВИЙ ИНТЕНСИВ ТЕРАПИЯ. КЛИНИК АМАЛИЕТДА УЧРАГАН ХОЛАТ. *Academic research in modern science*, *1*(9), 172-178.
10. Khayotovich, K. D., & Ikromovich, T. I. (2022). Specific Morpho functional Changes of the Lymphatic System in Patients Suffering from Burns. Eurasian Research Bulletin, 15, 81-84.
11. Yarashev A.R., Boltaev E.B., Shabaev Y.K. A retrospective analysis of complications of percutaneous dilated

tracheostomy // New day in medicine, 2020. 4 (32). P. 301-304.
12. Khayotovich, K.D., & Bekmurodugli, B.E. (2022). Case in clinical practice: Modern intensive care in the treatment of post-resuscitation complications caused by cardiac arrhythmias. *ACADEMICIA: An International Multidisciplinary Research Journal*.
13. Кассиль, В. Л. Искусственная и вспомогательная вентиляция легких / В. Л. Кассиль, М. А. Выжигина, Г. С. Лескин. М. : Медицина, 2004. - 480 с.
14. Rizaeva, M. Z. (2022). The clinical course of atrial fibrillation in patients with coronary heart disease. European journal of molecular medicine, 2(1).
15. Крылов В.В., Талыпов А.Э., Пурас Ю.В., Ефременко С.В. Вторичные факторы повреждений головного мозга при черепно-мозговой травме // Российский медицинский журнал. – 2009. – № 3. – С. 23–28.
16. Ризаева, М. Ж. (2020). ЭФФЕКТИВНОСТЬ И БЕЗОПАСНОСТЬ ЭЛЕКТРИЧЕСКОЙ КАРДИОВЕРСИИ ПРИ ПЕРСИСТИРУЮЩЕЙ ФОРМЕ ФИБРИЛЛЯЦИИ ПРЕДСЕРДИЙ. Новый день в медицине, (4), 322-325.
17. Потапов А.А., Крылов В.В., Лихтерман Л.Б. и др. Современные рекомендации по диагностике и лечению тяжелой черепно-мозговой травмы // Журнал вопросы нейрохирургии. – 2006. – № 1. – С. 3–8.
18. Qoyirov, A. Q., Kenjaev, S. R., & Xaitov, S. S. (2020). Egamova NT, Boltaev EB The role of delirium in patients with myocardial infarction of complicated acute heart failure. *New Day in Medicine*, *3*(31), 68-71.
19. Kh, P. S., & Ganiev, N. S. (2022). The Importance of Cardioprotective Artificial Ventilation of The Lungs in Intensive Care. Eurasian Research Bulletin, 15, 208-212.
20. Эшонов, О. Ш., & Болтаев, Э. Б. (2020). СПОСОБ ЭКСТРЕННОГО ОПРЕДЕЛЕНИЯ СТЕПЕНИ ТЯЖЕСТИ ЭНДОТОКСИКОЗА ПРИ НЕОТЛОЖНИХ СОСТОЯНИЯХ. *Новый день в медицине*, (1), 462-464.
21. Influence of a long-term, high-dose volume therapy with 6% hydroxyethyl starch 130/0.4 or crystalloid solution on hemodynamics, rheology and hemostasis in patients with acute ischemic stroke. Results of a randomized, placebo-controlled, double-blind study / R. Woessner, M.T. Grauer, H.J. Dieterich [et al.] // Pathophysiol.
22. Ураков, Ш. Т., & Ризаева, М. Ж. (2019). КЛИНИЧЕСКИЙ СЛУЧАЙ ПАЦИЕНТА С СИНДРОМОМ МАРФАНА. Новый день в медицине, (4), 439-440.
23. Lang. E.W., Lagopoulos J., Griffith J. et al. Cerebral vasomotor reactivity testing in head injury: the link between pressure and flow. J Neurol Neurosurg Psy-chiatr 2003
24. Oliveira-Abreu, M.30. Management of mechanical ventilation in brain injury: hyperventilation and positive end-expiratory pressure / M. Oliveira-Abreu, L.M. de Almeida // Rev. Bras. Ter. Intensiva. — 2009. — Vol. 21, № 1. — P.72—79.
25. Piechnik S.K., Yang X., Czosnyka M. et al. The continuous assessment of cerebrovascular reactivity: a validation of the method in healthy volunteers. Anesth Analg 1999; 89: 944-949.
26. Czosnyka M., Picard J.D. Monitoring and interpretation of intracranial pressure. J Neurol Neurosurg Psy-chiatr 2004; 75: 813-821.