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THE STUDY OF THE RESULTS OF SURGICAL TREATMENT OF ARNOLD-CHIARI ANOMALY

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Abstract: Arnold-Chiari anomaly (for the present time it calls anomaly of Chiari – AC) – is a congenital pathology of the rhombencephalon, presenting by the inadequacy of the posterior cranial fossa (PCF) and brain structures locating in that area which led to the ptosis of the brainstem and cerebellar tonsil to the great occipital foramen and incarceration of then on that level..

Keywords: anomaly, chiari, sugery, marrow

Abstract. The frequency of this disease is from 3,3 to 8,2 observations for 100000 population. In 1991 Chiari has been distinguished four types of anomalies with detailed presentation of them. Such classification we use for the present time. Approximately in 80% of patients AC combined with the pathology of spinal marrow – syringomyelia. MRI of the brain, cervical and thoracic parts of spinal marrow (for the exception of syringomyelia) is the diagnostic standard of such pathology.

Materials and methods. There were 5 patients with AC of I and II types in the neurosurgical clinic of Samarkand Medical university (SamSMU). From them 2 were women and 3 men at the age from 15 to 30 years old. Four patients were with the diagnoses of AC of I type; one patient was with the diagnoses of AC of the II type. In 2 patients AC combined with syringomyelia. MRI investigation has been performed for all patients. Four of them have been surgically operated. One patient has been treated conservative.
Pain in the cervical-occipital area, decreasing of sensitivity in the upper extremities, decreasing of muscles tonus in the arms and spasticity in the muscles of lower extremities has been determined in all patients.
Dysphagia, spontaneous nystagmus, permanent dizziness, nausea and vomiting have been examined in three patients. Resectional trepanation of the posterior cranial fossa with resection of the posterior semi-ring of atlas have been carried out in all four patients, resection of cerebellar tonsil with formation of “artificial” big cistern by autoplastic of dura matter with the use of transplant taken from the wide hip fascia.

Results. During the study of catamnesis it has been determined that in all patients the general status was significantly improved, general-encephalic symptoms were disappeared; nystagmus, dysphagia and other symptoms were regressed. On MRI it has been investigated regression of syringomyelia and the liquoro-circulation in the “artificially” formed of the big cistern was improved.
Conclusion. So, the received results could allow us to make a conclusion that the use of resectional trepanation on the level of cranium-vertebral transition with resection of the posterior semi-ring of atlas with formation of “artificial” big occipital cistern by autoplastic of dura matter with Arnold-Chiari anomaly I and II have been decreased the progression risk of the neurological symptoms and syringomyelia.

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