



The paramedian supracerebellar-transtentorial approach to the entire length of the mediobasal temporal region

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The exploration of lesions in the mediobasal temporal region (MTR) has challenged generations of neurosurgeons to achieve an appropriate approach. The paramedian supracerebellar-transtentorial (PST) approach provides the surgeon precise anatomical orientation when exposing the entire length of the MTR, as well as the fusiform gyrus, for removing any lesion. This is a novel technique especially for removing tumors involving the entire MTR in a single session without damaging neighboring neural or vascular structures. This approach can also be a viable alternative for selective removal of the parahippocampal gyrus, hippocampus, and amygdala in patients with mediobasal temporal epilepsy due to hippocampal sclerosis.

Angiospasm in the acute period of the rupture of cerebral arterial aneurysms

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Angiospasm (AS) accompanies almost all ruptures of cerebral arterial aneurysms (CAA) is no longer in doubt. Moreover, its severity and degree of influence on the outcome of the disease differs in patients.

Objective: to ascertain the effect of angiospasm on the outcomes of microsurgical treatment of CAA in the acute period of rupture.

Methods: the analysis of the results of microsurgical treatment of 332 patients with CAA operated in the Dnipropetrovsk Regional Clinical Hospital named after I.I. Mechnikov during 2013 to 2018 was carried out. The severity of angiospasm and its prevalence were assessed according to the data of transcranial dopplerography (TCD), cerebral angiography (CAG) performed on the first day of the patient's admission to the hospital, spiral computed tomography (SCT) in all cases was performed.

Results: in patients admitted within 24 hours after CAA rupture was absent in 22%, grade I AS was noted in 50.4%, grade II - in 2.7%, grade III - in 6.9%. At a later date, the number of patients with no AS decreased, and the number of patients with severe AS increased. From day 15, the ratio of the severity of AS approached the indicators of the first day. Clinically, grade I AS was not manifested, grade II AS was manifested in 7.2% of patients, and grade III AS in 12.7% of patients. Of these, delayed cerebral ischemia was confirmed by CT data in 26.6% and 73.4%, respectively. The prevalence of AS according to CAG data did not correlate with the severity of AS, but correlated with the severity of the condition according to Hunt-Hess. It was most severe with diffuse AS. Mortality in the operated groups depended not much on the timing of the operation, but on the severity of the patient's condition and the severity of AS on the day of the operation. The quality of life of the surviving patients also depended on the severity of AS and the severity of the condition according to Hunt-Hess.

Conclusions: the severity of AS and its evolution in patients in the acute period of CAA rupture are individual and this should be considered the timing of microsurgical treatment.

Key words: angiospasm, rupture of cerebral arterial aneurysms, delayed cerebral ischemia.