

**Introduction:** Internal Carotid Stump Syndrome may be one of the possible causes of ischemic stroke (iCMP), as well as retinal infarction (RI). Syndrome of the occluded internal carotid (ACI) (stump syndrome) is a nosological unit, which is characterized by an onset of ipsilateral iCMP or RI of thromboembolic etiology in patients with occlusion of ACI via the externa carotid or arteria ophthalmica. In my thesis, I have concentrated upon the specification of the stump syndrome, its diagnostics and treatment; furthermore I have assessed the appropriateness of surgical approach in comparison with conservative approach.

**Material and methods:** A total of 621 patients with occlusion were treated in two centres in the course of five years. In a group of 40 patients, the ACI occlusion was detected sonographically, the length of the occluded ACI being >5 mm, with normal vasoreactivity based upon SPECT CO<sub>2</sub> and excluded cardiogenic cause of iCMP. The patients were divided in two groups – surgical and conservative. Patients were monitored in 6-month intervals for the total period of four years.

**Results:** No RI or iCMP were detected in the surgical group; one patient died six months after surgery. We observed one case of amaurosis fugax in the conservative group.

**Conclusion:** Ultrasound examination is a fully sufficient diagnostic method for detection of chronic ACI occlusions and capture of the residual proximal stump; it is also a procedure specific enough to evaluate the length and content of the stump. The SPECT and SPECT CO<sub>2</sub> examinations provide us with sufficient information for assessment of vasoreactivity and the risk of thromboembolic or hypoperfusion iCMP. Surgical treatment of the occluded ACI in patients with stump syndrome is a safe method, the benefits of which have not yet been fully demonstrated, in comparison with the conservative approach. Endovascular treatment of the stump syndrome using stents is a new approach to solving this condition