

and the increase of Vmax, Vmin, and Vmean in the iMCA after the treatment ($p = 0.031$, $p = 0.0098$, and $p = 0.0139$ respectively). There was no significant difference between the neurological deficit before and after CAS ($p = 0,31$).

Conclusions: 1. CAS results in the early hyperperfusion within the both MCAs. It concerns relatively small group of patients. 2. The hyperperfusion occurs after CAS performed in the right ICA in particular. 3. The CAS appears to be safe procedure, and the moderate hyperperfusion seems to favor the mechanisms preventing the early neurological complications after CAS.

A. GRUMEZA

Stupefiation phenomenon, rehabilitation perspectives

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Background: The study deals with stupefiation phenomenon of cerebral tissue caused by internal carotid artery stenosis before and after endarterectomy.

Methods: The study included 15 patients, aged between 29-63 year selected based on Doppler duplex exam between 2004-2007. Surgical intervention was delayed 5-270 days after neurological deficit institution countered according to barthel's index of activities of daily living (BAI).

All the patients underwent Doppler duplex exam and digital subtraction angiography 4-7 days before, 7 and 30 days after surgery.

Results: Clinical exam showed 95 points (BAI) in 1 case; 80 points in 2 cases; 25 - 40 points in 5 cases and 0 - 10 points in 7 cases. Doppler duplex and angiographic exam in 6 cases discovered internal carotid artery occlusion. In other 5 cases was demonstrated internal carotid artery stenosis; 2 cases stenosis in both carotid systems. In 1 patient was present left carotid occlusion associated with 60-70% right stenosis. BAI improvement came in 5 patients 8 hours after surgery (95-100 points - 1 case; 80-100 points - 1 case; 30-75 points in 2 cases; 10-90 points - 1 case); in 8 patients 24-48 hours after surgery (80-90 points in 1 case; 25 to 75 points - 3 cases; 10 to 65 points in 4 cases). In 2 patients improvement was noticed 4-7 days after recanalization. Stenosis grade of operated arteries changed after surgery as follows: by 45-50% - in 6 cases; 75-80% - 6 cases; 80-90% - 2 cases. Statistically significant correlation between reduction of stenosis grade and improvement of motor functions wasn't discovered.

Conclusions: Stupefiation phenomenon of ischemic cerebral tissue is present in patients with neurological deficit caused by internal carotid artery stenosis. For evaluation of motor rehabilitation prognosis in patients with neurologic deficit motor evoked potentials exam is perspective one.

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A prospective community-based study of stroke in Belarus: the Grodno Stroke Study

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Background: Data on stroke incidence are lacking in Belarus. Therefore a population-based stroke register was established to determine incidence and case fatality in Grodno, a city on the border of European Union.

Methods: All suspected strokes occurred among 311 134 residents of Grodno-city were identified and assessed for all age groups. The registration started on January 1, 2001, and ended on December 31, 2003. Multiple overlapping sources of notification were used to ascertain cases, and standard criteria for stroke and case-fatality were used.

Results: During the study period 2724 cases of strokes among 2510 persons were registered, with 2069 being first-ever-in-a-lifetime strokes (FES). The diagnosis and pathological type of FES were confirmed by CT/MRI or autopsy in 43.9%, patient age ranged from 16 to 106 years (mean \pm sd age, 65.8 \pm 11.6 years). Among FES patients there were 1015