



**Krasnoyarsk
State Medical
University**

named after Professor
V.F. Voino-Yasenetsky

INTERNATIONAL CONGRESS ON NEUROSCIENCE



ABSTRACT BOOK

KRASNOYARSK
JUNE 19–21
2014

INTERNATIONAL CONGRESS ON NEUROSCIENCE

Russia Krasnoyarsk 2014

ISBN 978-5-94285-123-1

УДК 612.8+616.8(043.2)

ББК 56.1

A 16

Abstract Book International Congress on Neuroscience / Edited by A.B.Salmina, M.M.Petrova, E.A.Pozhilenkova – Krasnoyarsk 2014. – 125 p.

Abstract of reports presented at the International Congress on Neuroscience, Krasnoyarsk, June 19-21, 2014, on Neurodegeneration, Neuropharmacology, Neurosurgery, Neurooncology, Neurovisualization and Neuromonitoring, Brain Protection, Diagnostics and Restoration of Brain Functions.

Chief Editors: Prof. A.B.Salmina, Prof. M.M.Petrova, Assoc.Prof. E.A.Pozhilenkova.

Editing board: Assoc.Prof. O.L.Lopatina, Assoc.Prof. N.V.Kuvacheva.

© Krasnoyarsk State Medical University named after Professor V.F. Voino-Yasenetsky
Ministry of Public Health, Russian Federation, 2014

Support by the Russian Foundation for Basic Research Grant # 14-04-06038

Prognostic value of subcortical structures and brain stem condition in patients with hemorrhagic stroke

P.G. Snyakin, M.G. Dralyuk, L.N. Selezneva
Krasnoyarsk State Medical University named after
Prof. V.F. Voino-Yasenetsky, Krasnoyarsk, Russia

Four-stage algorithm of patients' selection for operative treatment was established on the base of analysis of disturbance in sound signal conduction through the brain stem (according to data from Auditory Evoked Potential, neuromy analyzer "Neuromyan" NMA-4-01) and peripheral blood flow (according to CT perfusion data, CT scanner GE Light Speed) in patients with putamenal localization of hemorrhagic stroke focus (studies 2010-2011 years). 1. After arriving of a patient with putamenal localization (PL) of hemorrhagic stroke the level of consciousness is evaluated. If it is below 9 in Glasgow Coma Scale (GCS), the patient receives conservative treatment. 2. All left patients with the score above 9 have volume of their hematoma measured. If the volume is less than 30 ml and midline shift is less than 5mm, the patients receive conservative treatment. 3. Patients with 9 and higher score in GCS and with the hematoma volume more than 30ml or midline shift more than 5mm, need Auditory Evoked Potential studying. In case of increased stem interpeak intervals (I-V and III-V) more than 20% above normal values, it is assumed that the brain stem has already suffered significantly, thus, operation will not lead to clinical improvement, and so, the patient receives conservative treatment. 4. Patients with 9 and higher score in GCS and with the hematoma volume more than 30ml or midline shift more than 5mm, without critical elevation of the interpeak intervals on Auditory Evoked Potential studying, need CT perfusion scanning. Patients with widespread and significant critical decrease of perifocal blood flow will also receive conservative treatment. Those patients that are left after all four stages of selection should be treated surgically with the low-invasive removing of intracerebral focus of hemorrhage under the control of neuronavigation.

Results of surgical treatment of patients with putamenal hemorrhages who were in sub compensated state (GCS from 9 to 10) have been analyzed in this work. The patients were selected according to the algorithm (n=12). Four patients operated in sub compensated state have died out of 12 (postoperative lethality 33,4%). For comparison: postoperative lethality among patients with GCS from 9 to 10 and with putamenal hemorrhages selected control of subcortical and brain stem structures condition (according to data from Krasnoyarsk Regional Hospital in period of 2008-2010) accounted for 58.8%.

To sum up, the low-invasive hematomas removing in patients underwent differential selection on the base of proposed algorithm, gives encouraging results.