Pharmacotherapeutic efficiency of mitochondrin (M2) and cerebral under experimental acute hemorrhagic stroke: Influence on glial homeostasis of cerebral cortex of rats

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Mitochondrin (M2) and Cerebral is a complex of trophinotropic regulatory oligopeptides, polypeptides and amino acids. These medicines have antihypoxic, trophinotropic and rehabilitation properties. Experiments were conducted with 40 white pubescent male rats in the acute period of the simulated hemorrhagic stroke (HS). Within 10 days after modeling different groups of animals were injected with M2 (intraperitoneal, 0.1 mg/kg/days) and Cerebral (intranasal, 0.15 mg/kg/days). Glial analyses of the sites of the sensomotor cerebrum cortex of the ipsilateral hemisphere was held: Glial Formula (GF) (the quantitative (%) content of glial cells of the total gliocytes and neurons (GF=astrocytes (A)+oligodendrocytes (O)+microgliocytes (M)) Glial Index Quantitative (GIQ) (a ratio of one type of gliocytes to another: GIQ1=A/M, GIQ2=O/M, GIQ3=A/O). In comparison with values before the use of M2, this medicine increased the amount of astrocytes (on 43.91%), ependymocytes (on 32.9%), reduced the amount of microgliocytes (on 35.1%) and has not have any positive effect on the oligodendrocytes; increased the rate of GIQ1 (on 62.4%), GIQ3 (on 67%) and reduced GIQ2 (on 15.99%). Cerebral authentically did not restore on the quantity of astrocytes, oligodendrocytes, microgliocytes and ependymocytes. Cerebral significantly reduced GIQ1 (on 40.07%) and GIQ2 (on 22.6%). The partial positive influence of the offered agents for correction of glio-glia interrelations in the sensomotor cerebral cortex of rats in the acute period of HS has been revealed.

Biography
Makarenko O M received his PhD degree from the Moscow Medical Stomatological Institute and MD degree from the Institute of Higher Nervous Activity in Moscow. He carries out his Post-doctorate researches at the Institute of Higher Nervous Activity and T G Shevchenko National University of Kiev. He is a Professor of the Psychology Department and the author of more than 100 articles in reputed journals and 4 monographs.

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