

men (49.1%) and 1054 women (50.9%). The crude incidence rate for FES was 221.7 per 100 000 (95% confidence intervals [CI], 211.9 to 232.8), the rate standardized to the new WHO world standard population (Ahmad O.B. et al., 2002) was also 221.7 per 100 000 (CI, 211.9 to 232.8). FES incidence rates rose steeply with age in both sexes (till group 85+) and were higher in men in all age groups. Rate of hospitalization was 89.7%; the 28-day case fatality rate was 26.1% (CI, 25.1% to 27.1%). Of the 2069 FES, 1571 (75.9%) were cerebral infarction, 289 (14.0%) were intracerebral hemorrhage, 61 (2.9%) were subarachnoid hemorrhage and 148 (7.2%) were stroke of undetermined type.

Conclusions: Stroke incidence and case-fatality rates in Grodno were found to be of highest among other studies. The distribution of stroke subtypes was similar to that of other countries. Our estimates are useful for developing management services and allocating resources.

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B-flow versus Color flow ultrasound imaging in 50 patients with carotid pathology

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The aim was to study/explore the difference in neurosonology delineating atheromatous plaques and morphology changes in patients with stroke and cerebrovascular risk factors.

Methods and patients: 50 patients, men 27 and women 23, mean age of 63 +9.7 years were examined with the use of color coded and duplex ultrasound device GE Vivid 7 Pro. All patients' pathology of the extracranial carotid and vertebral arteries were recorded as B-mode, B-flow, and Color flow pictures and velocity parameters were calculated.

Results and conclusion: Using B-flow resolution it could better visualize early and mild hypoechogenic plaques, define the site of small tubulences and swirls, hyperechogenic vessel changes with non significant velocity abnormalities, and give better plaque contrast in cross-sectional plane and as well as better delineation of the vessel contours and surface of thrombosis

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Algorithm of an Integrated Examination of the Vascular System as an Initial and Secondary Prevention of Stroke

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Diseases of the blood circulation system take first places by their spreading and cause more than a half of all death cases and one third of causes of incapability. Despite of significant achievements of scientists today there is not a tendency to decreasing of indexes of the disease and death of cardiovascular diseases. This says for an insufficient study of the cardiovascular system according to the position of its adequate functioning. The venous system of the organism is not studied enough, it is considered to be in shadow and hardly accessible for life-time functional investigation. On the other side medical investigations of the cardiovascular system don't take into account peculiarities of hemodynamic regularities in norm and pathological reconstructions of moving of non-newton liquid in case of various illnesses.

In other words stroke means brain catastrophe. According to laws of hemodynamics and our extensive practical experience of controlling influence on hemodynamics we have a right to say that present generally accepted approach to examination of the vascular (mostly arterial) system is not sufficient. Today it is necessary to implement new innovative technologies of applied usage of knowledge of hemodynamics to examination of a condition of the cardiovascular system as an integral system of closed tube line of arterial, venous and capillary channels. Present investigation of the vascular system should take into account a state of elasticity of the vascular wall, its ability to transfer pulsate wave, expressiveness of the tonus of the vascular wall, size of the hydrodynamic intravascular pressure and its correspondence with pumping function of the myocardium and vessels' caliber, ratability of formation of the angioarchitectonic model of one or another reservoir. Taking into account all parameters of the multisided vascular system and assessment of synchronization of

various functional properties of the vascular system is necessary for adequate diagnostics of disbalanced vascular system as on preclinical patients' examination and during treatment of the cerebral dysgemia.

Presence of a clinical picture of stroke says for expressed disbalance in functioning not only of the blood supply system but also of the blood outflow system in a certain patient that comes into a level of uncontrolled chaos during stroke. Very in these situations patient's vascular system requires constant monitoring of many hemodynamic parameters for the purpose of well-timed dynamic indication and adequate reaction for sanogenic correction of detected changes. Assessment program of quality of the performed medical care during neurorehabilitating courses in Medical Center "Istyna" proved increasing of quality of the performed medical care by criteria of decreasing of psychoneurological deficiency by 40-45% on the background of restoration of scarce and disbalanced blood supply in the cerebral reservoir by 50-60%. Our experience of examination of the vascular system according to logic of functioning of the living system generally and cardiovascular system in particular, shows the urgent necessity in changing priorities in investigation stroke patients – to leave ordinary verification of atherosclerotic plaques, thrombosis in the lumen of vessels. Only analytical approach to multisided investigation of various functions of blood supply, which is based on knowledge of hydrohemodynamic laws, gives essential results in decreasing of number of cardiovascular and cerebrovascular diseases.

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Carotid stenting in acute stroke. Reopening of Left Internal Carotid Artery. One case report

78-years old man with history of diabetes mellitus and coronary heart disease was admitted to hospital because of sudden paresis of right limbs and aphasia. In anamnesis several episodes of transient paresis of the right upper limb in the previous 2 days. On admission 15 points in NIHSS, on CT scan no intracranial haemorrhage, no ischemic lesion related to stroke. Doppler examination - suspicion of Left Internal Carotid Artery (LICA) occlusion and collateral circulation through anterior communicans artery from right to left site. Patient received intravenous Actilyse (SITS - MOST). Neurological examination and doppler examination after intravenous thrombolysis without improvement. Carotid angiography revealed total occlusion of LICA. The occlusion of the LICA was reopened by soft catheter. Nitinol stent was implanted with good result. Patient received antiplatelet treatment Aspirin and Clopidogrel). Control CT scan after 24 hours showed 2 hypodensic areas in the left hemisphere. During hospitalization neurological state improved – patient began to walk with help. Control CT scan after 6 days revealed hemorrhagic transformation of ischemic lesion without clinical deterioration (antiplatelet treatment was continued). After 11 days of hospitalization patient was discharged with improvement (8 points NIHSS) in good general condition and was admitted to rehabilitation department.

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Complications of severe cerebral amyloid angiopathy in the course of dementia with Lewy bodies. A clinical and neuropathological case report

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Cerebral amyloid angiopathy (CAA) is a clinico-pathological condition caused by the deposition of amyloid in the walls of leptomeningeal and brain parenchymal vessels. CAA has a fundamental aspect of pathology of many disorders causing dementia. Brain parenchymal hemorrhage and/or necrosis is common in this condition, but focal pure subarachnoid hemorrhage is rare.

Authors report a case of 67-year-old male who was admitted to the Second Department of Neurology in the Institute of Psychiatry and Neurology. He suffered on dementia from 4 months and was treated by risperidone and donepezil. He was admitted due to vertigo and slight left hand paresis. On CT scan hemorrhagic infarct in the left frontal lobe and multiple ischemic lesions in frontal, temporal and parietal lobes were revealed. Recurrent subarachnoid hemorrhage, intracerebral hemorrhagic and ischemic lesions were observed on repeated CT scans, allowed to diagnose of CAA clinically. He deceased