

ETIOLOGY AND CLINICAL SYNDROMES OF LACUNAR STROKE

Author: Emīls Baškers¹

Co-Author: Dr. Nora Bogdanova²

Scientific research supervisor: Dr. Med. Evija Miglāne^{3,4}

¹ Rīga Stradiņš University, Faculty of medicine, Latvia

² University of Latvia, Continuing education faculty, Residency in Radiology, Latvia.

³ PSKUS Clinic of Neurology, Latvia

⁴RSU Department of Neurology and Neurosurgery, Latvia

Key words. lacunar infarct, etiology, risk factors, syndromes

Introduction. Twenty five percent of ischemic strokes are lacunar in type, also it is part of the deeper process which affects brain but the cause and pathogenesis remains unclear. This probably leads to suboptimal prevention and treatment. Lacunar syndromes have role in diagnostic and choosing therapy, as they could be specific to lacunar stroke.

Aim. To evaluate risk factors, burden of lacunar strokes and periventricular leukoencephalopathy, therapy and its effectiveness, secondary prophylaxis recommendations and lacunar syndromes among lacunar stroke patients in Pauls Stradins Clinical University Hospital.

Results. 102 patients, mean age 69.38 (min. 34, max. 91). From risk factors arterial hypertension had 89.2% (n=91), diabetes had 11.8% (n=12). Atrial fibrillation had 13.7% (n=14) and cortical ischemic stroke in history had 19.6% (n=20). GFR was under 60ml/min to 8.8% (n=9) patients and proteinuria had 13.7% (n=14) patients. Arteria carotis communis intima media (ACC-IM) thickness was under 0.9mm only 11.8% (n=12) of patients and ACC stenosis over 50% had 14.7% (n=15). LDL over 3mmol/l had 38.2% (n=39) and cholesterol over 5mmol/l had 42.2% (n=43). Most dominant

syndrome was pure motor stroke 43% (42.2%). Pure sensory stroke 8.8% (n=9), sensorimotor stroke 12.7% (n=13), ataxic hemiparesis 14.7% (n=15), dysarthria-clumsy hand syndrome 6.9% (n=7), atypical lacunar syndrome 14.7% (n=15). Antiplatelet drugs in acute therapy were used in 93.1% (n=95) cases. Intravenous thrombolysis was chosen only in 2.9% (n=3) cases and Warfarin was used in 2% (n=2), and new anticoagulants weren't used at all. Syndromes reduced or disappeared in most of cases. In 90.2% (n=92) for secondary prophylaxis were recommended antiplatelet drugs but in 8.8% (n=9) anticoagulants. Anticoagulants were used for therapy and prophylaxis to patients with cardioembolic stroke. 34.3% (n=35) of patients didn't have any lacuna in CT, 23.5% (n=24) had 1 lacuna, 38.2% (n=39) had 1-5 and 3.9% (n=4) had more than 5 lacunas. 43.1% (n=44) had periventricular leukoencephalopathy.

Conclusions. Results show that most common risk factor is hypertension. ACC-IM thickness may be associated with lacunar strokes. Lacunar strokes often combine with periventricular leukoencephalopathy without atherosclerotic changes in blood vessels. It shows that lacunar strokes are part of small vessel disease, which can be subclinical for a long time. Pure motor stroke is most prevalent syndrome. Antiplatelet drugs are most used therapy in case of lacunar stroke.