

POSTER PRESENTATIONS – ABSTRACTS

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Middle cerebral arteries blood flow monitoring with the use of transcranial doppler ultrasonography in hypertensive patients without significant stenosis of extracranial arteries, in acute phase of ischemic stroke

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Background: sudden and rapid lowering of blood pressure in patients with ischemic stroke can cause regional blood flow decrease and increase of ischemic area. The aim of study: the current project was aimed at elucidating whether blood pressure decrease in hypertensive patients with ischemic stroke, not characterized by hemodynamically significant stenosis in extracranial arteries and proximal segments of intracranial arteries may lead to circulation disturbances in middle cerebral arteries (MCAs) as visualized by transcranial Doppler ultrasound (TCD) and whether the cerebral blood flow disturbances resulting from blood pressure changes influence the risk of neurological deterioration in those patients.

Material and methods: the study was done on 62 patients of 45 - 86 years old, with arterial hypertension, in the acute phase of the first ever ischemic stroke. Systolic (SBP), diastolic (DBP) and mean (MBP) blood pressure values were analyzed. The level of neurological deficit was measured with the use of NIHSS (National Institutes of Health Stroke Scale). We have calculated the following parameters: the mean velocity (Vmean), Gosling's pulsatility index (PI), Pourcelot's resistance index (RI), aMCA/uMCA vmean index (affectedMCA/unaffectedMCA vmean index).

Results: A significant decrease of SBP, DBP and MBP occurred between the first and second day after stroke. No correlation between a decrease of arterial pressure, MCAs blood flow parameters and neurological deficit was observed.

Conclusions: in patients with arterial hypertension, without significant stenosis of carotid arteries and proximal parts of MCAs, in the acute phase of ischemic stroke: 1/ decrease of blood pressure doesn't cause significant disturbances of blood flow in MCAs, assessed with the use of TCD, 2/ stable circulation in proximal part of MCAs seems to be the one of the factors which prevent the increase of neurological deficit in the acute phase of ischemic stroke.

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Haemorrhagic transformation of acute ischaemic stroke in the patients treated with IV rt-Pa

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Background: Haemorrhagic transformation (HT) is one of the most serious complications of the rt-Pa therapy.

Purpose: The purpose of this study was to overview the group of the patients with HT after rt-Pa therapy in order to find risk factors of this complication.

Material and methods: In a period from September 2006 to December 2007 in stroke unit in Sandomierz we treated 40 patients with rt-Pa. In this group 10 patients had haemorrhage. We analysed different factors: sex, age, blood pressure,

blood tests results: INR, APTT, level of thrombocytes, status of the patients in the moment of admission(NIHSS), time of rt-Pa administration

Results: In analysed group of patients were 9 men and 1 woman, aged 59-77 years (average $68,7 \pm 7,02$). Nihss in the moment of admission was 8-18 (average $12,4 \pm 3,64$). Systolic blood pressure in the first 24 hours was $144 \pm 35,16$ mmhg, on the second day – $136 \pm 16,25$ mmhg. Average INR, APTT and thrombocytes results were respectively $1,2 \pm 0,17$; $33,66 \pm 9,52$ seconds and 181700 ± 54439 per milliliter. Ct performed on the second day in 4 cases showed small ischaemic changes, in 5 cases changes exceeding 30% of MCA area and in 1 case an immense change. 4 of our patients had haemorrhage type PH1, 2 of them had PH2, 1 HT1, 1 HT2 and 2 of them had remote HT1.

Conclusions: This pilot study indicates the need for further analysis of patients with haemorrhage after rtPa treatment in order to define the risk factors of this complication.

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The clinical characteristic of patients treated with IV rt-Pa in stroke unit of neurological department in Sandomierz

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Background: intravenous thrombolytic treatment is a recognized way of treatment in the patients with an acute ischaemic stroke.

Material and methods: in the period from September 2006 to December 2007 in the stroke unit in Sandomierz 336 patients with ischaemic stroke were treated, including 40 patients (aged 49-83, average $66,4 \pm 4,9$) treated with rt-Pa (12,5%). The influence of different factors: the risk factors, the results in stroke scales and the results of CT images were analysed.

Results: in this group of 40 patients treated with rt-Pa 34 had had arterial hypertension, 9 fixed atrial fibrillation (FA), 7 paroxysmal FA, 2 other heart rhythm disorders, 3 serious conduction disorders, 29 coronary heart disease, 7 myocardial infarction, 3 diabetes, 14 lipid metabolic disorders, 4 atheromatosis of the great vasculares, 3 stroke, 2 TIA. In the 27,5% of patients (11) atheromatic infarct, in 47,5% (19) cardiogenic embolism and in 25% (10) infarct of non stabilized etiology were diagnosed. The average time from the onset of the disease to the beginning of the treatment was $140,25 \pm 45,5$ min. The average neurological conditions in NIHSS $12,3 \pm 5,1$ and sss $24,43 \pm 14,1$ were evaluated.

Conclusions: The group of patients with an acute ischaemic stroke treatment with in rt-Pa had had a lot of risk factors.

The largest was the group of patients with regard of etiology with cardiogenic embolism.

In less than half of patients in the first CT images early ischaemic lesions were observed.

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Strokes in paroxysmal atrial fibrillation have more favorable outcome than in permanent atrial fibrillation

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Permanent (ptAF) and paroxysmal (pxAF) atrial fibrillation carry similar risk of ischemic stroke (IS). Our aim was to compare the course of is due to ptAF and pxAf. Prospective, single centre study in patients with AF and acute IS with 6-month follow-up was conducted. Consecutive 178 patients were included: 70 (39%) with pxAf, 108 (61%) with ptAF. Patients with pxAf more often than with ptAF presented with subcortical, mainly lacunar strokes (21% vs 8%, $p=0.01$) and were less often dependent at admission (50% vs 81%, $p<0.001$), discharge (16% vs 42%, $p<0.001$) and after 6 months (16% vs 20%, $p<0.01$). Strokes in pxAf were more frequently categorized as noncardioembolic (35% vs 18%, $p=0.01$). Permanent AF was an important risk factor for unfavorable short- (or 3.73; $p=0.005$) and long-term outcome (or 2.05, $p=0.01$) of all strokes. Presented study suggests strokes in pxAf have better outcome than in ptAF because of more frequent noncardioembolic mainly lacunar strokes.