

hemoglobin] ([tHb]; -0.92 vs -0.32 mmol/L, $p < 0.03$) at BP nadir. Galantamine reduced BP (Δ 6.5 mmHg, $p < 0.05$), CBFV remained stable due to decreased CVR. The differences in BP and [tHb] reduction upon standing remained after treatment.

Conclusions: Unexpectedly single sit-stands induced less BP reduction in AD patients. Combining this with similar reduction in CBFV and more reduction in [tHb] suggests possible impairment of cerebrovascular regulation. It appears that Galantamine did not affect these findings.

SESSION III

A case of Sonothrombolytic treatment in acute ischemic stroke with contraindications to RTPA.

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Sonothrombolysis is a promising alternative to conventional thrombolytic treatment of patients with ischemic stroke. The effect of accelerating of clot disruption by ultrasound exposure has been proved both in laboratory and animal model and in humans either for brain or for other vascular territories. Its systematization, technical requisites and field of application are in progress again. There are some small reports of its use both in combination with rtPA and alone in patients with contraindication to rtPA with a favorable trend on arterial recanalization and better outcome of patients.

We present the case of a young male (48 years) with a past history of mild arterial hypertension and coronary artery disease. He was admitted to our Stroke Unit because of the abrupt onset of right sided hemiplegia and aphasia, within three hours. The unenhanced brain CT was insignificant (ASPECTS 10) and the neurosonological examination with TCCS, performed at the entrance, showed a left M1 MCA occlusion. 7 days ago the patient underwent to major surgical intervention because of a iatrogenic gut perforation and therefore there was an absolute contraindication to IV rtPA. Local mechanical treatment was not available at the moment in our hospital and then we performed an ultrasound continuous monitoring during two hours of left MCA with TCCS and administration of second generation UCA. At 30 minutes we obtain a partial recanalization of the artery and at 24 hours there was mild MCA stenosis, disappeared at 48 hours. At three months the patient was independent with mRS 0.

Acute Middle Cerebral Artery Mainstem Occlusion: Recanalization 12 hours after Symptom Onset predicts Outcome after 3 Months

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Background: With regard to the question whether a late recanalization up to 24 hours might have a beneficial impact on the outcome, we analyzed the data from our registry of patients with acute proximal MCA-M1 occlusion.

Methods: Patients with acute MCA-M1 occlusion admitted within 6 hours were followed-up with respect to recanalization and outcome up to 3 months. The 2-sided Spearman correlation coefficient was calculated to detect the recanalization time point most predictive for the outcome after 3 months.

Results: A total of 94 patients were included; 65 patients received ivTPA; and 25 underwent additional sonothrombolysis by 1.8 MHz transcranial ultrasound for 1 hour (SoT). Of 29 patients who did not undergo thrombolysis, 15 received SoT. Mean time from symptom onset until start of US monitoring was 178 ± 70 minutes. The outcome after 3 months (mRS 0-1) showed a strong correlation to the recanalization (graded as none, partial and complete) at 12 hours after symptom onset ($P=0.002$). This was also true for the subgroup of patients receiving ivTPA ($p=0.021$). There was no correlation to the recanalization grade during the first 60 minutes after US monitoring start and after 24 hours. Logistic regression analysis revealed the NIHSS at baseline as a further predictor for the outcome.

In conclusion, recanalization between the fifth and the 12th hour after symptom onset has the most predictive value regarding the outcome after 3 months. This finding supports the hypothesis that there is a recanalization window beyond the established therapy time frame.

Safety and beneficial therapeutic effects of contrast enhanced Transcranial color-coded duplex sonography during cerebral reperfusion

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Background and purpose: In monitoring of recanalisation and in sonothrombolysis strategies of rtPA treatment, contrast-enhanced transcranial color coded duplex sonography (CEUS) is used over extended periods of time. However, there are some concerns about the safety profile of an extended CEUS monitoring during the vulnerable period of reperfusion after acute intracranial arterial occlusion. This study was designed to evaluate the safety profile and potential beneficial effects of extended CEUS monitoring in a rat model of reperfusion.

Methods: Fifty male Wistar rats were subjected to right hemispheric stroke by use of the filament model. Reperfusion was established after 90 minutes, followed by rt-