

#### **B4** Acute stroke treatment - global aspects

### **Reperfusion therapy results among patients with initial and recurrent cerebral infarction in Latvia.**

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**Background.** There is no doubt about the efficacy of intravenous thrombolysis in cerebral infarction. The data about reperfusion therapy in recurrent stroke are underestimated.

**Patients and methods.** Retrospective study was performed analyzing Latvian stroke register data. Data of all 472 patients who received reperfusion therapy from 2009 till 2014 year were included in the study. Reperfusion therapy methods were intravenous (IV) thrombolysis only (N=295), mechanical thrombectomy only (N=151) or combined IV thrombolysis/ thrombectomy (N=26). Patients were divided in 2 groups – first ever cerebral infarction (FECI) (322 patients) and recurrent cerebral infarction (RECI) group (158 patients). Both groups were similar by age whereas in recurrent stroke group were more women. Disability was analyzed by modified Rankin score (mRS) and stroke severity was scored by NIHSS.

**Results.** Mean mRS score was 4,6 in FECI group before reperfusion therapy, but in RECI group – mean mRS was 4,8. Mean NIHSS at admission were 12,3 in FECI group while in RECI group mean NIHSS were 13,3. At discharge from hospital mean NIHSS score was equal with 7,6 in FECI and 7,2 in RECI group.

**IV thrombolysis** received only 189 patients in FECI and 106 patients in RECI group. In-hospital mortality was 10% and 7% accordingly. Favourable stroke outcome (mRS 0 – 3) was observed in 52% of patients in FECI and 53% of patients in RECI group.

**Among patients** who received mechanical thrombectomy with or without IV thrombolysis in-hospital mortality was 12% in FECI and 0% in RECI group. Favourable stroke outcome occurred in 54% of patients in FECI and 60% of patients in RECI group.

**Conclusion**

**Results of reperfusion therapy.** both intravenous thrombolysis and mechanical thrombectomy are not

#### **B5** Acute stroke treatment . **The Markers for Diffusion-weighted MRIs**

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**Background** Diffusion-weighted MRI is a sensitive tool for detecting acute ischemic damages in strokes after endovascular treatment. Radiological predicting markers for functional recovery are needed. **Methods** We collected patients who underwent IAT. All patients who underwent IAT was performed 3-T MRI including DWI and GRE hypointensities. **Results** Lesion reversal was assessed by mRS (0-5) and clinical (good or bad) at 3 months. Of 75 patients, 39(52.0%) patients had reversal of DWI signal was shown in 21.5%. DWI and GRE hypointensities (33.3%) were reversed in patients with functional lesion reversal in patients however was not related in patients with functional lesion reversal.

**Conclusion** Diffusion-weighted MRI is a sensitive tool for detecting acute ischemic damages in strokes after endovascular treatment. Radiological predicting markers for functional recovery are needed. **Methods** We collected patients who underwent IAT. All patients who underwent IAT was performed 3-T MRI including DWI and GRE hypointensities. **Results** Lesion reversal was assessed by mRS (0-5) and clinical (good or bad) at 3 months. Of 75 patients, 39(52.0%) patients had reversal of DWI signal was shown in 21.5%. DWI and GRE hypointensities (33.3%) were reversed in patients with functional lesion reversal in patients however was not related in patients with functional lesion reversal.

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