

**Abstract: Outcome of patients after acute ischemic stroke treated with mechanical thrombectomy.**

**Background.** Thrombectomy is an effective treatment for acute ischaemic stroke (AIS).

**Aims.** The study aimed to compare the clinical results of patients with different types of large cerebral artery occlusion who underwent mechanical thrombectomy at the Cardiocenter of the Faculty Hospital of Královské Vinohrady.

**Methods.** This was a single-center, prospective registry of 214 consecutive patients with AIS enrolled between 2012 and 2018. All thrombectomy procedures were performed in a cardiology cath lab with stent retrievers or aspiration systems. The functional outcome was assessed by the modified Rankin Scale (mRS) after three months.

**Results.** Ninety-three patients (44%) had middle cerebral artery (MCA) occlusion, 28 patients (13%) had proximal internal carotid artery (ICA) occlusion, 27 patients (13%) had tandem (ICA+MCA) occlusion, 39 patients (18%) had terminal ICA (T-type) occlusion, and 26 patients (12%) had vertebrobasilar (VB) stroke. Favorable clinical outcome (mRS  $\leq 2$ ) was reached in 58% of MCA occlusions and 56% of isolated ICA occlusions, but in only 31% of T-type occlusions and 27% of VB stroke. Poor clinical outcome in T-type occlusions and VB strokes was influenced by the lower recanalization success (mTICI 2b-3 flow) rates: 56% (T-type) and 50% (VB) compared to 82% in MCA occlusions, 89% in isolated ICA occlusions and 96% in tandem occlusions.

**Conclusions.** Catheter-based thrombectomy achieved significantly better clinical results in patients with isolated MCA occlusion, isolated ICA occlusions or tight stenosis, and tandem occlusions compared to patients with T-type occlusion and posterior strokes.