

FEATURES AND TRENDS IN ENDOVASCULAR TREATMENT FOR ISCHEMIC STROKE AT PAPA GIOVANNI XXIII HOSPITAL

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Introduction. Mechanical thrombectomy has become a standard for the treatment of acute ischemic stroke with occlusion of major intracranial vessels since 2015 (1). A clinical pathway for the hyperacute phase of such patients has been created at our hospital, which includes default admission to the Neurosurgical Intensive Care Unit after the endovascular procedure. We describe the features of the patients treated at our centre and highlight trends in patient selection and techniques.

Results. We have treated **41 patients** since January 1st, 2016. Patient rate was 2.1/month in 2016 and 3.2/month in 2017. Mean age was 64 ± 11 years, and mean NIHSS score before treatment was 16 ± 4 . **No intravenous thrombolysis (IVT)** was carried out in **61%** of patients overall (n = 25), 52% of the patients in 2016 and 75% of 16 patients in 2017. The main reason for withholding IVT was wake-up stroke or > 4.5 hours from symptom onset. In-hospital death occurred in 4 patients (9.7%). No patient had a symptomatic hemorrhage. **Thromboaspiration without stentriever** was carried out in 31 patients (**76%**). **TICI 2B-3 grade reperfusion** was achieved in **66%** of the patients overall (27/41%), and in 75% excluding the 5 patients in whom the internal carotid could not be accessed despite repeated attempts. Loco-regional thrombolysis with low dose alteplase was carried out at the end of the procedure in 1 patient (2%), and internal carotid stenting in 1 patient (2%). In 2017 **median door-to-CT-Angio time was 30 min** (range 25-79); **median CT-Angio-to-femoral puncture (FP) time was 87 min** (range 33-120), and **median FP- to-reperfusion time was 25 min** (range 20- > 60) in those in whom at least the internal carotid could be accessed. Thirty-four percent of patients could not be admitted to the Neurointensive Care Unit because of lack of available beds, and went directly to the subintensive Stroke Unit.

Discussion. Treatment rate per month seems to be increasing from institutional start of the procedure. An increasing fraction of patients undergoes endovascular treatment without previous i.v. thrombolysis, and pure thrombus aspiration, without stentriever use, is increasingly common. Door-to-CT-Angio time, and FP-to-reperfusion time are already close to the suggested targets (2), while the CT-Angio-to-FP time is still far from the suggested target of 30-40 minutes (2). Achievement of the “optimal” times needs focussed educational interventions, and potentiation of neurointerventional manpower for adequate 24/7 coverage.

References

1. Campbell BCV et al. Lancet Neurol 2015;14:846-854
2. Saver J. et al. JAMA 2016; 316:1279-1288