P138 THROMBECTOMY VERSUS COMBINED THROMBOLYSIS AND THROMBECTOMY FOR PRIMARY MEDIUM AND DISTAL INTRACRANIAL OCCLUSIONS: A PROPENSITY-SCORE MATCHED MULTICENTER ANALYSIS

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Introduction Mechanical thrombectomy (MT) has demonstrated superiority over medical therapy for acute ischemic stroke (AIS) with large vessel occlusion (LVO). The role of adjunctive intravenous thrombolysis, such as IVtPA in MT remains unclear, especially for medium vessel occlusion (MeVO).
Aim of Study This multicenter study aimed to compare outcomes between MT alone and MT+IVtPA in patients with MeVO.
Methods Data from 827 patients treated at 37 academic centers in America, Asia, and Europe were collected between September 2017 and July 2021. Propensity score matching was performed to create two well-balanced groups: MT alone and MT+IVtPA. Baseline characteristics, procedural details, and clinical outcomes were analyzed.
Results After propensity score matching, a total of 577 patients (315 in the MT alone group and 262 in the MT +IVtPA group) were included in the analysis. The two groups had comparable baseline characteristics. Periprocedural details were similar. In univariable regression, all outcomes were comparable between the two groups, except for higher mRS 0-2 rates in the MT+IVtPA group. Multivariable regression analysis showed no significant differences in first pass effect (FPE), number of passes, Thrombolysis in Cerebral Infarction (TICI) scores, rates of mRS 0-1, mRS 0-2, mortality, or intracranial hemorrhage between the groups.
Conclusion In patients with primary medium and distal intracranial occlusions, MT alone and MT+IVtPA yielded similar clinical outcomes. These findings suggest that adding IVtPA to MT may not confer additional benefit in this population. Further research is needed to determine the optimal treatment approach for MeVO.
Disclosure of Interest no.

2.2. Imaging

P139 CORRELATION OF LEPTOMENINGEAL RECRUITMENT DURING ACUTE ISCHEMIC STROKE WITH CT PERFUSION VALUES AND PATIENT OUTCOMES

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Introduction Leptomeningeal arteries are recruited in the acute phase of an ischemic stroke and their role is to increase brain perfusion to the hypoperfused area via retrograde flow.
Aim of Study To investigate the effects of leptomeningeal collaterals on Computed Tomography Perfusion (CTP) values and their correlation with patient outcomes.
Methods 158 patients with anterior circulation stroke who underwent mechanical thrombectomy were included in the study. Using the Tan classification, which rates collateral circulation on a 4-point scale (0–3), we examined the collateral grade score of the patients on Computed Tomography Angiography (CTA). We correlated the collateral recruitment with core and penumbra volumes, as well as the potential recuperation ratio (PRR) and mismatch ratio on CTP. We also correlated them with the rate of functional independence 3 months after stroke (mRS) and mortality.
Results The incidence of atrial fibrillation, diabetes mellitus, and anticoagulant use were similar across all patients; however, the incidence of arterial hypertension varied (p=0.022). Higher Tan scores were associated with lower core volumes (p=<0.001), higher PRR (p =<0.001), and mismatch ratios (p=<0.001). Tan scores did not correlate with penumbra volumes (p=0.122) or successful recanalization (p =0.383). Higher Tan scores were associated with a decreased mortality rate (p=<0.001) and better mRS scores in stroke patients (p=<0.001).
Conclusion Leptomeningeal arteries are an important compensatory mechanism in the event of an acute ischemic stroke. There is a strong correlation between the arteries' visibility and CTP values, as well as improved functional outcomes in acute ischemic stroke patients.

2.3. Treatment

P140 MECHANICAL THROMBECTOMY WITH COMBINED STENT RETRIEVER AND CONTACT ASPIRATION IN ACUTE BASILAR ARTERY OCCLUSIONS

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Introduction Fast reperfusion after large vessel occlusion (LVO) is a strong predictor of good clinical outcomes in patients with LVO. Therefore, how to improve the mechanical thrombectomy (MT) technique for the first-pass effect is paramount.
Aim of Study To evaluate safety and efficacy of combined stent retriever and contact aspiration MT technique in acute basilar artery occlusion.
Methods We have retrospectively reviewed basilar artery occlusions treated with MT and combined technique in our institution in a six months period and analyzed the angiographic and clinical outcomes, including first-pass complete recanalization, number of passes, procedure duration, 90-day modified Rankin Scale (mRS).
Results We have treated 5 patients with a combined MT technique in a selected period. In all cases complete recanalization was achieved. Mean procedure time, from punction to recanalization, was 55 (45-82) min. In all patients' groin puncture and femoral artery was used for access. First-pass complete recanalization was achieved in 4 cases, whereas in one case 2 passes were needed for complete recanalization. All cases were performed under general anesthesia. In 2 cases 90-day mRS was 0, in 2 cases was 1, and one patient died from pulmonary complications on the day 14 (mRS 6).
Conclusion Our series suggests that MT technique with the combined stent retriever and contact aspiration yielded high recanalization rate in acute basilar artery occlusion patients