2.3. Treatment

P134 COMPARATIVE IN VITRO ANALYSIS OF ADJUNCTIVE INTRA-ARTERIAL LYTICS ON HUMAN BLOOD CLOTS

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Introduction Complete recanalization after endovascular treatment (EVT) in stroke is linked to better clinical outcomes. Adjunctive Intraarterial lytics might enhance recanalization rates.
Aim of Study We aimed to compare the in vitro effect of rt-PA and Tirofiban on clots retrieved during EVT.
Methods Clots retrieved during EVT were divided into two fragments (or three in cases in which control test was performed). Blood samples were collected and plasma was separated and mixed with 5 mL of Tirofiban, rt-PA or physiological saline in controls. Each clot fragment was embolized in a 3D printed arterial model connected to a flow pump creating a closed circuit where the study solution was circulated for 5 minutes. Clots were weighted before and after experiments. Additionally, in a subset of clots initially treated with tPA, the experiment was repeated consecutively with Tirofiban to assess the combined effect of the two drugs.
Results From May 2023 to March 2024, 45 clots (110 experiments) were tested. In the control cases (n=10) median weight reduction was 5.7% as compared to 20.4% with tPA ($p<0.01$) and 21.1% with Tirofiban ($p<0.01$). Clots treated with both drugs showed 40.3% weight reduction, significantly higher than individual treatments ($p<0.01$)
Conclusion In our experimental design, both rt-PA and Tirofiban induced a significant clot weight reduction. Sequential drug administration resulted in a significantly higher lytic effect. Further studies should validate the safety and efficacy of intraarterial lysis adjunctive to EVT.
Disclosure of Interest no.

P135 ENDOVASCULAR TREATMENT OF STROKE CAUSED BY ISOLATED INTERNAL CAROTID OCCLUSION: COMPARATIVE SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction The optimal management strategy for acute stroke due to isolated cervical internal carotid artery occlusion without intracranial involvement is unclear. Our study aimed to assess whether endovascular therapy (EVT) improves clinical outcomes in this specific patient population.
Aim of Study In this systematic review and meta-analysis, our objective is to compare the efficacy and safety of two approaches.
Methods A systematic search was conducted on comparative effect of EVT versus best medical treatment (BMT) in patient with stroke due to isolated ICA occlusion, utilizing PubMed, Scopus, and Web of Science databases following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). The comparison between the two approaches was conducted using a weighted random-effects model.
Results We included a total of 5 studies comprising 439 cases of acute stroke due to isolated ICA occlusion (291 treated with EVT and 148 with BMT). Our results suggest higher rates of favorable 90-day mRS outcomes in the EVT group (OR: 2.57, 95%CI: 1.07-6.19, p-value=0.03, I2:49%). We observed lower rates of 90-day mortality in the EVT group (OR: 0.83, 95% CI: 0.42-1.64, p-value=0.59, I2:0.0%), although this difference did not reach statistical significance. The incidence of symptomatic ICH did not differ significantly between the two groups (OR: 2.09, 95% CI: 0.73-6.0, p-value=0.17, I2:0.0%).
Conclusion Our literature review revealed better functional outcome in EVT group while maintaning comparable adverse event. Future comparative studies with special attention to the patient's baseline status is warranted for better desicion in these patients.
Disclosure of Interest no.

P136 BEYOND MTICI2B-3 – IS THESE ENOUGH IN MECHANICAL THROMBECTOMY? PRE-LIMINARY RESULTS FROM A PROSPECTIVE STUDY ON CEREBROPROTECTIVE TREATMENT

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Introduction Successful reperfusion does not always yield sufficient clinical success in patients with acute ischemic stroke (AIS) admitted for mechanical thrombectomy (MT).
Aim of Study This is a single center, prospective, open-label, single-arm study study designed to determine the efficacy of Cerebrolysin treatment as an add-on therapy to MT in reducing global disability in subjects with AIS.
Methods Patients with a small established infarct core and with good collateral circulation who achieve significant reperfusion following MT and who receive additional Cerebrolysin within 8 h of stroke onset were compared to matched controls treated with MT alone, matched for age, clinical severity, occlusion location, baseline perfusion lesion volume, onset to reperfusion time, and use of iv thrombolytic therapy.
Results Patients receiving Cerebrolysin as an add-on therapy to MT and rehabilitation tended to have better short- and long-term prognosis. Cerebrolysin significantly decreased the risk of intracerebral secondary hemorrhages. Cerebrolysin treatment was an independent predictor of excellent outcome at 12M ($p=0.04$). The greatest benefit from cerebroprotection was found in patients receiving rtPA, with TICI 3, CTA-CS 3 or ASPECTS<10.
Conclusion There is a need for additional pharmacological treatment to minimize the risk of hemorrhagic transformation and to improve clinical outcomes after MT. Cerebroprotective activity of Cerebrolysin may enhance the beneficial effects of reperfusion therapy and rehabilitation. Strategy combining