

Results As of April 2024, one patient has been recruited and enrollment is expected to be completed by September 2024. Final results will be presented at the ESMINT.

Conclusion RapidPulse is a novel cyclic aspiration technology designed to achieve faster and better reperfusion in LVOS while significantly reducing disposable device costs. Additional larger studies are currently underway.

Disclosure of Interest yes Consultant for Rapid Pulse.

P023

CYCLIC ASPIRATION IN MECHANICAL THROMBECTOMY: INFLUENCING FACTORS AND EXPERIMENTAL VALIDATION

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10.1136/jnis-2024-ESMINT.60

Introduction Mechanical thrombectomy is a fundamental intervention for acute ischemic stroke treatment. While conventional techniques are effective, cyclic aspiration (CyA) shows potential for better recanalization rates.

Aim of Study We aim to investigate factors affecting CyA and compare them with static aspiration (StA).

Methods StA setup consisted of an aspiration pump connected to pressure transducer. CyA was tested with five setups: single solenoid valve with air+saline (1) or saline alone (2) as aspiration medium; two solenoid valves with air+saline (3) as aspiration medium; complete air removal and saline feeding (4); pressurized saline feeding (5). To assess the efficacy of clot ingestion, the pressure transducer was replaced with a distal aspiration catheter. Moderately stiff clot analogs (15 mm) were used to investigate the ingestion quantified as clot relative weight loss. Additionally, the aspiration flow rate was assessed for each setup.

Results With CyA setup 1, the amplitude of the achieved negative pressure waves declined with increasing frequencies but progressively increased with each subsequent iteration, achieving a maximum amplitude of 81 kPa for setup 5 at 1Hz. Relative clot weight loss was significantly higher with setup 5 at 5Hz than with StA (100% vs. 37,8%; $p=0.05$). Aspiration flow rate was lower with CyA than with StA (setup 5 at 5Hz: 199,8ml/min vs. StA: 311ml/min; $p<0.01$).

Conclusion Cyclic aspiration with the appropriate setup may represent an encouraging innovation in mechanical thrombectomy, offering a promising pathway for improving efficacy in clot ingestion and recanalization. The observed benefits warrant confirmation in a clinical setting.

Disclosure of Interest no.

P024

ACTISAVE STUDY: EFFICACY AND SAFETY OF GLENZOCIMAB ON TOP OF THROMBOLYSIS AND MECHANICAL THROMBECTOMY

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10.1136/jnis-2024-ESMINT.61

Introduction Glenzocimab is a monoclonal antibody fragment targeting platelet glycoprotein VI, inhibiting platelet activation and aggregation. ACTIMIS study (NCT03803007) described the safety profile of glenzocimab in AIS patients, on top of thrombolysis (IVT) with or without mechanical thrombectomy (MT), and showed a trend in efficacy measured by mRS at day-90 in patients treated by IVT and MT.

Aim of Study Glenzocimab was evaluated in ACTISAVE study (NCT05070260) for the treatment of Acute Ischemic Stroke (AIS) on top of standard of care.

Methods ACTISAVE is a multicenter, randomized, double-blind, placebo-controlled, parallel-group, adaptive phase 2/3 study in AIS patients, treated by IVT within 4.5 hours of symptoms onset with or without MT. Patients were randomized in a 1:1 ratio and treated by an IV dose (1000 mg) of glenzocimab or placebo. Patients were also randomized according to the standard of care (SOC) received, IVT alone or IVT with MT. A subgroup analysis for patients treated with both SOC was performed.

Results Among 421 patients treated in ACTISAVE study, 159 (38%) of them received the double SOC with a recanalization assessment.

Preliminary data indicates that among patients receiving bridging therapy, median age [Q1-Q3] was 73 [65-82] with a gender proportion (F/M) of 51/49%; 78% of patients were aged ≥ 65 years, including 32% ≥ 80 years. Pre-IVT NIHSS median score [Q1-Q3] was 15 [10-20].

The optimal recanalization (eTICI 2c-3) was achieved in 107 (67%) patients.

Conclusion Unblinded results of ACTISAVE clinical trial will be available by ESMINT 2024 and presented by treatment group.

Disclosure of Interest yes JCG is a consultant for Frazer Ltd and a DSMB, advisory board member for Acticor and Prolong Pharma. MK has received speaker's honoraria and/or compensation for advisory board participation from: Boehringer Ingelheim, Bayer, Daiichi Sankyo, Pfizer, BMS, AstraZeneca, Sanofi, Novartis, Biogen, Acticor. MK is member of the supervisory board of CompuGroup Medical SE & Co. KGaA. AC, AM, ET, SB are employees of Acticor Biotech. GA, SB and YP have management role at Acticor Biotech. AC, AM, ET, GA, SB and YP have stock interest in Acticor Biotech.