

2.3 ISCHEMIC – Treatment

020/181

EARLY REPERFUSION OR COMPLETE REPERFUSION TICI 3: DETERMINANTS OF IMPROVE OUTCOME AFTER FIRST PASS RECANALIZATION IN MECHANICAL THROMBECTOMY

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Introduction First-pass(FP)-recanalization has been shown to improve outcome in patients with ischemic stroke undergoing mechanical thrombectomy(MT). Data also suggests that FP-recanalization is more often associated with complete reperfusion TICI=3 than with TICI=2b. Independently, it was shown that TICI=3 significantly improves functional outcome after mechanical thrombectomy

Aim of Study To evaluate whether early recanalization or complete recanalization TICI=3 are the determinants of improved outcome observed after FP-recanalization.

Methods All patients prospectively enrolled in the German Stroke Registry-ET (05/2015–12/2021;N=13082) were screened. Inclusion criteria were anterior circulation stroke and successful recanalization TICI \geq 2b. Good functional outcome was defined as 90d modified Rankin Scale(mRS) \leq 2. Mediation analysis was performed to evaluate how much of the FP-related improvement in functional outcome is explained by complete reperfusion TICI=3.

Results 2589 patients were included, 1170(47%) had successful FP recanalization, 797(68% of FP-cases) with TICI=3. FP-recanalization was associated with higher rate of good functional outcome compared to multi-pass with 49.2% vs 37.6%. Mediation analysis suggests that FP-recanalization increases probability of good outcome by 9.6 percentage points vs. multi-pass recanalization. 12.8% (95%CI:7.6%-23%) of this effect was explained by TICI=3 recanalization whereas 87.2% (77%-92%) are explained by other factors associated with FP-recanalization.

Conclusion Only 13% of the FP-related improvement in functional outcome is explained by higher rates of complete recanalization, suggesting significant importance of early recanalization and low number of MT maneuvers. Results may improve the understanding of the importance of FP-reperfusion vs. early TICI=3 and may help to optimize MT treatment strategies.

Disclosure of Interest HK has financial interest in Eppdata GmbH.

GT received fees as consultant and lecturer from Acandis, Alexion, Amarin, Boehringer Ingelheim, Bayer, BMS/Pfizer, Daiichii Sankyo and Portola. He serves in the board of the TEA Stroke Study and of ESO.

JF is consultant for Cerenovus, Medtronic, Microvention, Penumbra, Phenox, Roche, Stryker and Tonbridge. He is stock holder of Tegus Medical, Eppdata and Vastrax. He serves as Associate Editor at JNIS.

All other authors have nothing to disclose.

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STENTING OF INTRACRANIAL STENOSIS WITH THE FIBRIN-HEPARIN COATED CREDO HEAL STENT - MULTICENTER EXPERIENCE

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Introduction Mechanical thrombectomy (MT) has become the standard treatment for acute ischemic stroke due to large vessel occlusions (LVO). However, MT may not result in successful recanalization due to underlying stenosis and bail-out stenting may achieve permanent recanalization.

Aim of Study To present the heal technology and the Credo heal Stent as an approach to intracranial atherosclerotic disease (ICAD) treatment and report the final results of a multicenter analysis.

Methods We retrospectively analysed data from 16 stroke centres. Patients treated with the Credo heal Stent were divided into two groups: symptomatic intracranial stenosis (sICAD) and persisting LVO due to underlying stenosis after futile mechanical thrombectomy (Rescue Stenting group). Primary endpoints were improvement of stenosis grade and rate of successful recanalization. Favourable neurological outcome was defined by modified Rankin Score at 90 days.

Results 121 patients were treated from 2021–2023 with the CREDO heal Stent. Rescue stenting and sICAD treatment was performed in 82 and 39 cases respectively. Overall, a final TICI \geq 2b score was achieved in 94.5%. In 14% periprocedural complications occurred where in-stent thrombosis accounted for 6.3% (rescue stenting group). The mean stenosis grade in the sICAD group was 90% before and 15% after PTA and stenting. On follow-up (n=27) restenosis was observed in 2.8%.

Conclusion The Credo heal stent offers a treatment option for patients with sICAD or with persistent occlusion. The rate of restenosis is low compared to previous trials. Its effectiveness with regard to long-term ischemic complications will be evaluated in the prospective ReCHRUT trial.

Disclosure of Interest Hannes Nordmeyer and Franziska Dorn received speaker honoraria from Acandis. All other author have nothing to disclose.

3.1 OTHER – Innovation

022/188

BRAIN ANEURYSM FOUNDATION – BRAIN ANEURYSM AWARENESS CAMPAIGN

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Introduction Brain aneurysm foundation – brain aneurysm awareness campaign

As in all countries around the world as well as in LT brain scan tools such as MRI are becoming more popular, well-known, and easily accessible. More unruptured intracranial aneurysms are detected/diagnosed by MRI for multiple reasons, including headache, vertigo, and others. In most cases,

aneurysms are detected accidentally and are not related to any symptoms. Physician society often discusses whether asymptomatic aneurysms should be preventively treated or observed by performing follow-up images. Undoubtedly, each aneurysm's natural risk rupture and procedural risk must be evaluated personally and a lower-risk approach should be taken to manage the aneurysm.

Aim of Study Technology such as AI has the potential to significantly improve our ability to detect, measure and track aneurysm, as well as determine risk of aneurysm rupture. As research, education, and technology grows, we have to raise awareness across the general population and empower patients to take better care of their health, employ and accelerate benefit of technology.

Methods We commission the Representative Survey of the Population (the years 2020–2023 respondents – approx. 1000).

We provide structured information on www.smegenuaneur-zima.lt about the disease, symptoms, risks, and treatments.

We collect PHASES risk prediction score data.

Results Since 2021 more than 5000 PHASES questionnaires have been filled. Awareness about brain aneurysm increasing each year (according to representative survey)

Conclusion To raise awareness in general population is important in order to guide patients towards lower risk and better outcome.

Disclosure of Interest no disclosures.

2.3 ISCHEMIC – Treatment

023/195 SAFETY AND EFFECTIVENESS OF SOFIA/SOFIA PLUS FOR DIRECT ASPIRATION AS FIRST-LINE TREATMENT IN PATIENTS WITH ACUTE ANTERIOR ISCHEMIC STROKE: RESULTS FROM THE PROSPECTIVE, MULTICENTRIC SESAME STUDY

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Introduction Despite the proven efficacy of mechanical thrombectomy, there is still ongoing debate regarding the optimal technique and devices to use.

Aim of Study In this prospective, multi-center study, we aimed to assess the safety and efficacy of the SOFIA/SOFIA PLUS catheter for direct aspiration as a first line treatment technique (SESAME).

Methods N=246 patients with acute ischemic stroke due to large or medium vessel occlusion in the anterior circulation between October 2017 and December 2021 were enrolled from 14 European centers. First-line treatment was performed using the SOFIA catheters within 6 hours from onset (NIHSS \geq 2 and \leq 30). Safety and imaging results were independently reviewed by a Core Laboratory and a Clinical Events Committee. The primary outcome was defined as attaining functional independence (mRS of 0–2 after 90 days).

Secondary outcomes included angiographic (mTICI) and imaging parameters (ASPECTS) as well as clinical outcomes (NIHSS, mRS).

Results Mean age of included patients was 71.6 \pm 13.9 years with a median NIHSS of 14 (IQR 10–18) on admission. After first-line therapy using only SOFIA/SOFIA PLUS for aspiration, 15.9%/23.6%/35.0% mTICI 2b/2c/3 could be attained after 33.4 \pm 24.6min. In n=47, stent-retrievers had to be used as second-line therapy, leading to 13.8%/29.7%/48.4% mTICI 2b/2c/3 overall after 38.73 \pm 27.3min. No device malfunctions were observed. Symptomatic intracranial haemorrhages occurred in 2.8%, while embolization in a new territory occurred in 4.1%.

Conclusion Primary aspiration with SOFIA catheter offers a safe and effective choice of therapy for the treatment of large vessel occlusions of the anterior circulation.

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1.1 HAEMORRHAGIC – Aneurysms

024/205 WEB AND CONTOUR: PROS AND CONS OF TWO INTRAANEURYSMAL FLOW DISRUPTORS AFTER 4 YEARS OF PARALLEL USE. A SINGLE CENTER EXPERIENCE

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Introduction Intraaneurysmal flow diversion was introduced in 2011 with the advent of the WEB, mainly to treat wide neck bifurcation aneurysms without the necessity of reconstruction or remodeling the parent artery. More recently, other devices have become available in the same category with identical clinical indications. One such device is the CONTOUR, available in the EU and awaiting FDA approval. Our center has gathered experience with both devices in parallel use over a course of 4 years. We compared the two systems, highlighting their potential overlap and individual pros and cons looking at both procedural and outcome data.

Aim of Study To compare WEB and Contour with regard to procedural and outcome data using a single center database of patients treated between 2018 and 2023.

Methods Procedural and imaging data of 150 aneurysm treatments using WEB and CONTOUR were entered into a database and both descriptive and analytics statistics were performed, including a propensity score analysis.

Results We identified 80 WEB and 70 Contour treatments. Procedure times and radiation doses were smaller with Contour, WEB has shown a better early occlusion but greater tendency for recurrence, especially with compaction of the implant. CONTOUR did not compact but was either still perfused at FU or in rare cases showed some dislocation. The exact mechanisms will be highlighted at presentation after further and more thorough analysis.