

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.it 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.

Conclusion WEB and CONTOUR have significant overlap of indications, there are however differences in the procedural behavior and limitations and mid and long term stability.

Disclosure of Interest TL consults and proctors for CERUS Endovascular and has in the past Proctored and consulted for Sequent and Microvention.

2.3 ISCHEMIC – Treatment

025/232 ENDOVASCULAR VERSUS BEST MEDICAL TREATMENT FOR ACUTE CAROTID OCCLUSIONS BELOW THE CIRCLE OF WILLIS (ACOBOW): RESULTS FROM THE ACOBOW STUDY

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Introduction Acute occlusions of the internal carotid artery can cause mild to severe stroke symptoms, even if the distal intracranial segment remains patent. The acute therapeutic strategies include carotid endarterectomy, endovascular treatment (EVT) or best medical treatment (BMT). However, available data remains limited.

Aim of Study This study was performed to compare treatment effects and procedural safety of EVT and BMT for acute isolated primary occlusions of the ICA below the C7 segment (ipICAO).

Methods This retrospective, multicenter study analyzes patients treated at 20 comprehensive stroke centers in Europe, and Asia between January 1, 2008, to December 31, 2022. Functional outcomes (mRS 0–2) and safety (SICH, mortality) were assessed.

Results 359 patients met the inclusion criteria. The median age was 72 years (IQR, 60–81). The highest frequency of ipICAO were in 69.7% (248) in the C1 segment. In 82% (293) patients were treated with EVT. After EVT for ipICAO distal intracranial embolization occurred in 26.3% (77). Overall, favorable functional outcome (mRS 0–2) and mortality were 41% (108) and 25% (67), respectively. SICH occurred in 7.1% (25). After adjustment no significant treatment effect of EVT over BMT for favorable functional outcome was observed (EVT: Average treatment effect, -1.2%, 95% CI, -0.18 to 0.16; $p=0.89$). Rates of SICH and mortality did not differ between both treatment arms.

Conclusion In patients with primary isolated occlusions of the carotid artery below the circle of willis, EVT did not reveal a substantial treatment effect over BMT in this retrospective multicenter study.

Disclosure of Interest JF: Consulting fees from Cerenovus, Medtronic, Phenox, Penumbra, Roche, Tonbridge; Participation on a Data Safety Monitoring Board of Stryker, and Phenox; stock holdings for Tegus and Vastrax, Associate Editor for JNIS.

1.2 HAEMORRHAGIC – Brain AVM/AVF, spinal vascular malformations

026/251 'PRESSURE COOKER' AND 'BALLOON PRESSURE' TECHNIQUES SIGNIFICANTLY INCREASE 3-MONTH COMPLETE OCCLUSION RATE AFTER SPINAL ARTERIOVENOUS FISTULA EMBOLIZATION AS COMPARED TO GLUE

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Introduction Spinal arteriovenous fistulas can be treated either by surgery or by endovascular means, using different strategies. The main drawback of embolization is the risk of recurrence.

Aim of Study To evaluate the angiographic occlusion rate and the predictive factors of angiographic cure of spinal arteriovenous fistulae at 3 months or more after embolization.

Methods Retrospective single-center study including 38 consecutive patients with spinal arteriovenous fistulae treated by embolization as first-line treatment. We reviewed clinical, imaging data, complications, angiographic immediate occlusion rate of the fistulae, and at 3 months or more after the embolization.

Results A total of 45 embolization procedures were performed: 30 procedures using glue, 15 using Onyx[®] by 'pressure cooker' or 'balloon pressure' techniques. We observed no statistically significant difference between the two groups concerning immediate angiographic occlusion rate (87% in both groups; $p > 0.9$), as well as for peri-procedural complication rates. The angiographic occlusion rate at 3 months or more was higher in the Onyx[®] 'combined' techniques treated group (87% versus 40%, $p = 0.007$). The use of Onyx[®] 'combined' techniques was independently associated with angiographic cure at 3 months after embolization ($p = 0.029$). No other factors were identified as predictive of angiographic cure and clinical recovery after embolization procedures, nor were any predictive factors identified for the occurrence of periprocedural complications.

Conclusion Embolization of spinal arteriovenous fistulas with Onyx[®] using 'combined' techniques appears to be safe and associated with a higher rate of angiographic occlusion at 3 months than regular embolization with glue.

Disclosure of Interest Prof. Clarençon reports conflicts of interest with Medtronic, Balt Extrusion (consultant), ClinSearch (core lab), Penumbra, Stryker (payment for reading) and Arde-drone (Board)

Dr. Sourour reports conflicts of interest with Medtronic, Balt Extrusion, Microvention (consultant).