noted (4 cases of stable residual aneurysmal filling and 4 of aneurysmal recanalization). Two of those recurrent aneurysms were retreated by coilembolization. The overall directly procedural-related complication rate was 4,7%, including one death. Seven cases of in-stent-stenosis (12,3%; morbidity n=0) were detected on long-term follow-up with 6 of them when using the kissing-Y stenting technique.

Conclusions Endovascular treatment of various complex intracranial aneurysms using the Acandis Acclino stent systems is safe and efficient with high aneurysm occlusion rates combined with low complication rates at long-term follow-up. Overall, rates of in-stent-stenosis are low but seem to depend on the treatment technique (single stent-assisted versus kissing-Y stenting with coiling).

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Disclosure Nothing to disclose

EP08 THE POWER OF INFORMATION: WEB DEVICE IN-VIVO EVALUATION WITH ENDOVASCULAR HIGH FREQUENCY OPTICAL COHERENCE TOMOGRAPHY (HF-OCT) TECHNOLOGY: FIRST IN HUMANS EXPERIENCE

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Introduction WEB (Woven Endobridge, Sequent Medical, Aliso Viejo, California, USA) device represents a new generation of the called ¨endosaccular flow disruption¨ devices which have been designed for the treatment of wide-neck bifurcation aneurysms (WNBA). early clinical experiences have reported a good safety and effectiveness profile. Current limitations during the endovascular treatment of those WNBA using conventional approaches such as high recanalization rates, significant thromboembolic complications and need for re-treatments may be overcome using this braided technology.

Matherials and Methods High-frequency optical coherence tomography (HF-OCT) consists of an endovascular catheter-based imaging technique that has been validated in either peripheral and interventional cardiology fields. oct technology combines the use of infrared light and tridimensional reconstruction, allowing the evaluation (micron-scale level) of the inner wall of the vessel, intravascular devices implanted as well as associated hemodynamic and biological responses.

Discussion We report here, the intracranial use of OCT to evaluate the et of a carefully selected patient with a WNBA located in posterior circulation treated with WEB technology. We describe for the first time in humans these technical and angiographic aspects intra-procedural as well as the visualization close to the histology of the findings immediately after WEB deployment.

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Disclosure Boris Pabon proctorship con MEDTRONIC, Microvention Consultant MIVI

EP09* GRINT: GUIDELINES FOR REPORTING IN INTERVENTIONAL NEUROLOGICAL THERAPY – *FLOW DIVERTERS*

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Introduction Studies presenting clinical and imaging outcomes regarding flow diverter treatment for intracranial aneurysms lack uniformity. This especially applies to studies reporting off-label use. Reporting guidelines like STROBE have been developed to make methodological aspects of observational studies more uniform but they do not address topic-related issues. For example, they do not give recommendations for outcome measures. Lack of uniform outcome measures affects comparability of published studies.

Aim of the Study To set up guidelines for reporting methods and outcomes in studies investigating flow diversion treatment of intracranial aneurysms.

Methods First a literature review was performed on clinical and radiological outcome measures including timing of outcome. Next a consensus statement on preferred primary outcome measures and methods was developed by experienced clinicians.

Results Outcome measures are categorized in procedural, post procedural (≤30 days) and follow up. Both clinical and radiological outcome measures are proposed.

Conclusions Uniform reporting of methods and results of neuro interventional therapy will enhance comparability of studies. In this study we will provide recommendations for the reporting of methods and outcome measures regarding flow diverter treatment.

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Note: This is work in progress and final recommendations have not (yet) been made. The goal of the proposed abstract/presentation is to raise and enhance awareness of this topic and thereby initiate formation of a committee/workgroup to further work on these plans.

Disclosure Nothing to disclose

EP10* ACCURACY EVALUATION OF DERIVO FLOW DIVERTER DEPLOYED LENGTH PREDICTIONS WITH PRESIZE NEUROVASCULAR AND COMPARISON OF DEVICE SIZE SELECTION BETWEEN TRADITIONAL PLANNING AND SIMULATIONS

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Introduction Evaluating the final length and positioning of flow diverting (FD) stents inside patient arteries for optimal device size selection remains a challenging, yet crucial, task in complex aneurysm treatment.
Aim This study reports the accuracy of PreSize Neurovascular software in predicting FD deployed length and impact of PreSize's use on device size selection. PreSize (Oxford Heartbeat Ltd) is a visualisation/simulation software for neurovascular FD intervention planning in aneurysm treatment.
Methods Imaging data from 80 FD cases using Derivo Embolisation Device (Acandis GmbH), collected from University Medical Center Hamburg-Eppendorf, were retrospectively analysed. Prediction accuracy was defined as agreement between PreSize simulation and actual deployed FD length measured in angiography. Two experienced Interventional Neuroradiologists (INRs), blinded to post-deployment angiographies, selected optimal sizes using PreSize in a subset of 25 cases. PreSize-informed device choices (diameter/length) were compared to deployed devices (informed by conventional planning).
Results Investigated FDs had a mean nominal length of 26.9 mm (15–50 mm). PreSize predicted deployed FD length with a mean accuracy of 94% (95% confidence interval [93%,95%]). PreSize-informed devices were shorter (Wilcoxon signed-rank test, $Z=21.5$, $p<0.01$) by 5.2 mm on average (up to 20 mm) compared to conventionally chosen devices. In 32% of cases, shorter PreSize-informed devices would have resulted in fewer FD-covered vessel bends while achieving sufficient aneurysm coverage. In 88% of cases, PreSize's automatic size suggestion was INR's selection.
Conclusions PreSize predicted deployed FD lengths with high accuracy. Results indicate INRs' propensity to select shorter devices with PreSize, supported by its precise deployment simulation and visualisation.
Disclosure Outside of the submitted work Dr. Fiehler reports grants and personal fees from Acandis, grants and personal fees from Cerenovus, grants and personal fees from Medtronic, grants and personal fees from Microvention, personal fees from Penumbra, and personal fees from Phenox outside the submitted work; shareholder Tegus, CEO Eppdata. Outside of the submitted work Dr. Bester reports personal fees as proctor and consultant from Acandis.

EP11 A POSSIBLE FOLLOW-UP PROTOCOL FOR THE NOVEL CONTOUR NEUROVASCULAR SYSTEM FOR INTRACRANIAL ANEURYSM TREATMENT IN MRI AND SPECTRAL CT

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Introduction The Contour Neurovascular System (CNS) is a new intrasaccular flow diverting device, designed for treatment of intracranial wide-necked aneurysms. Metal artifacts are limiting MRI assessibility after implantation.[1]
Aim The purpose of this in vitro study was to evaluate non - invasive imaging alternatives to DSA.
Methods Three aneurysms of patients originally treated with CNS within a premarket study were 3D-printed. The 7 mm, 9 mm and 11 mm CNS were implanted under fluoroscopic control into the 3D-models. Post implantation 2D-DSA, flat panel CT, MRI, conventional and spectral CT angiography (CTA) were performed. DSA and flat panel CT were assumed as the gold-standard.
Results Time of flight-angiography and T1 weighted sequences showed large susceptibility artifacts at the detachment zone of the devices. A thin sliced T2-weighted sequence in cross-sectional orientation to the aneurysm allowed visualization of the aneurysm dome, but the aneurysm neck and the parent vessel still could not be assessed. Conventional focused CTA and especially spectral CTA with metal artefact reduction algorithm showed only minor artifacts. A very similar result to DSA and flat panel CT could be achieved, by thus making possible the assessment of the device structure, aneurysm perfusion and parent vessel perfusion.
Conclusions Focussed CTA, especially with spectral technology and metal artifact reduction, appeared to be a sufficient non-invasive alternative to the gold standard DSA. MRI can be valuable for larger aneurysms to assess the aneurysm dome, but is not suitable for the evaluation of the parent vessels and the aneurysm neck after CNS implantation.

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Disclosure Nothing to disclose

EP12 PCONUS 2 HPC IN THE TREATMENT OF WIDE NECKED INTRACRANIAL ANEURYSMS- MEDIUM TERM RESULTS

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Introduction pCONUS 2 HPC (Hydrophilic Polymer Coating) are novel bifurcation stents designed to assist endovascular coil occlusion of wide necked aneurysms(WNAs). They are neck bridging devices that prevent coil extrusion into the parent vessel.[1] It innovates on the previous generation by increasing the number of wire petals in the crown of the device from four to six, increasing stability of the implant, and shortening the length of the device shaft.
Aims To summarise periprocedural outcomes, 6-month and 2-year follow-up results following its introduction in a tertiary centre.
Methods This prospective study reviewed total of 24 patients with 24 WNAs treated over 42 months between 01/11/17 and 18/05/2021. All patients with wide necked intracranial aneurysms (ruptured and unruptured) with dome to neck ratio <2 with pCONUS-2 or HPC device were included in the study.
Results The mean age of the cohort was 57.9 years. 20 unruptured and 4 ruptured aneurysms were treated. 11/24 aneurysms were located at the MCA bifurcation, 8/24 basilar tip, 3/24 in ICA terminus, 1 AnCOm and 1 pericallosal locations. No immediate mortality. There was one periprocedural retroperitoneal bleed and one minor stroke (4.1%). At 6 months, satisfactory Raymond-Roy occlusion was achieved in 85.7%(18/21). At 2 years, satisfactory Raymond-Roy occlusion