Results DTAS using the Philips’ advanced 3D neuro-imaging prototype technology offers a significant advantage over traditional DTCT stroke pathway in decreasing time to puncture for LVO patients without significant decrease in image quality. Additionally, the new prototype offers dose significant reduction as compared with multi-detector CT. Furthermore the posterior fossa assessment is remarkably improved with this new technology. Conclusions 3D neuro-imaging prototype technology has provided an almost multi-detector CT level of anatomical structures spatial and contrast resolution, during pre-procedural ASPECT assessment, clot localization, collaterals and post-procedural hemorrhagic components evaluation during DTAS for mechanical thrombectomy, significantly reducing the door-to-puncture timing. This new technology significantly improves and maximizes the triaging of these LVO patients in the DTAS pathway.

REFERENCES

Do you have any conflict of interest to declare?: No

P66 ACUTE STENTING AND CONCOMITANT TIROFIBAN ADMINISTRATION FOR ACUTE INTRACRANIAL ARTERY DISSECTIONS

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Abstracts

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Introduction Intracranial artery dissection is an uncommon and often underdiagnosed cause of acute ischemic stroke. Despite the fact that acute stenting of the dissected arterial segment is a therapeutic option, the associated antiplatelet therapy and the fact that acute stenting of the dissected arterial segment is an alternative to mechanical thrombectomy (MT) with the Aperio® 17 stentretriever (Acandis, Pforzheim, Germany). The primary objective is to evaluate the safety and efficacy of the Aperio® 17 in distal arterial occlusions (diameter <3mm) in the anterior and posterior circulation.

Methods Data are collected in an intention-to-treat approach from all patients who signed the informed consent. Efficacy endpoints are: successful recanalization (TICI score 2b-3) within 3 passes, without intracranial hemorrhage or rescue therapy and a good neurological outcome at 90d (mRS £ 2). Primary safety endpoints are the rates of device and procedure related (serious) adverse events (AEs/SAEs) and mortality. Image data are assessed by the centers and a central core lab. Primary inclusion criterion is treatment with the APERIO® 17 and APERIO® 17 Hybrid. Major exclusion criteria are ASPECTS 0–5, hemorrage on pretreatment image and pretreatment mRS £ 31. Patients with a mRS £ 3 and hemorrage on pretreatment image and pretreatment mRS £ 31.

Results Fifty-six patients were enrolled so far. Median age was 78, 54% were female, median NIHSS score was 8 (1–31). Target occlusion sites were M2 (61%), M3 (18%), P1/2 (14%), A1–3 (3%), BA (2%). Successful recanalization was achieved in 94.4% after an average of 1.6 passes. mRS 0–2 at 90d was achieved by 25 of 30 patients in whom follow up was available (83%). Mortality was 5%. There was one embo- lization in a previously non-affected territory but no other complications.

Discussion Our interim analysis shows high recanalization rates with a good safety profile, thus contributing to perspective prove efficacy of MT of small/peripheral vessel occlusions.

REFERENCES

Do you have any conflict of interest to declare?: No

P67 RECANALIZATION OF DISTAL CEREBRAL VESSELS IN ACUTE STROKE USING APERIO® (REVISAR): FIRST INTERIM ANALYSIS

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Background REVISAR is a prospective multicenter study on mechanical thrombectomy (MT) with the Aperio® 17 stent-retriever (Acandis, Pforzheim, Germany). The primary objective is to evaluate the safety and efficacy of the Aperio® 17 in distal arterial occlusions (diameter <3mm) in the anterior and posterior circulation.

Methods Data are collected in an intention-to-treat approach from all patients who signed the informed consent. Efficacy endpoints are: successful recanalization (TICI score 2b-3) within 3 passes, without intracranial hemorrhage or rescue therapy and a good neurological outcome at 90d (mRS £ 2). Primary safety endpoints are the rates of device and procedure related (serious) adverse events (AEs/SAEs) and mortality. Image data are assessed by the centers and a central core lab. Primary inclusion criterion is treatment with the APERIO® 17 and APERIO® 17 Hybrid. Major exclusion criteria are ASPECTS 0–5, hemorrage on pretreatment image and pretreatment mRS £ 3 or higher.

Results Fifty-six patients were enrolled so far. Median age was 78, 54% were female, median NIHSS score was 8 (1–31). Target occlusion sites were M2 (61%), M3 (18%), P1/2 (14%), A1–3 (3%), BA (2%). Successful recanalization was achieved in 94.4% after an average of 1.6 passes. mRS 0–2 at 90d was achieved by 25 of 30 patients in whom follow up was available (83%). Mortality was 5%. There was one embo- lization in a previously non-affected territory but no other complications.

Discussion Our interim analysis shows high recanalization rates with a good safety profile, thus contributing to perspective prove efficacy of MT of small/peripheral vessel occlusions.

REFERENCES

Do you have any conflict of interest to declare?: No
Do you have any conflict of interest to declare?: Yes
Conflict of Interest Statement FD serves as a Proctor/Consultant for Cerenovus, Balt, Cerus Endovascular, Stryker and Acandis.
HN serves as a Proctor/Consultant for Acandis und Balt.

P68 CLINICAL EXPERIENCE WITH NIMBUS AFTER FAILED STENTRETRIEVER THROMBECTOMY – ANOTHER CHANCE FOR RECANALIZATION?
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Introduction Despite overall high recanalization success, mechanical thrombectomy is unsuccessful in 12 to 41% of patients. The Nimbus device was designed to effectively remove specifically fibrin-rich clots, which often cannot be removed by conventional stent retrieval and/or aspiration procedures. High effectiveness was demonstrated in the model.

Aim To evaluate the clinical experience and recanalization success with Nimbus as a second line device after failed stent-retriever thrombectomy of large vessel occlusions.

Methods Consecutive Nimbus cases from one high volume stroke center were retrospectively analyzed.

Results Nimbus was used in 20 patients with acute large vessel occlusion (12 M1-, 8 M2-segment) after unsuccessful recanalization attempts with conventional stent retrievers (average 2.36 passages, maximum 6). In 10/20 patients (50%), Nimbus resulted in a TICI 2b-3 outcome with an average of 2.3 passages (maximum 5). Five of the 10 successful cases were achieved with one single Nimbus pass (50%).

Conclusions The use of Nimbus resulted in a good recanalization outcome in 50% of patients and is therefore a rescue option in otherwise unsuccessful recanalization procedures.

REFERENCES

Do you have any conflict of interest to declare?: No

P70 IN-VITRO EVALUATION OF ASPIRATION PARAMETERS WHEN THE LARGE BORE ASPIRATION CATHETER IS COMBINED WITH THE USE OF A STENT RETRIEVER
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Introduction In clinical practice, the combination of stent retriever and aspiration catheter has been shown to be effective in the treatment of acute ischemic stroke. However, it remains unclear how to maximize the use of the two thrombectomy systems when combined.

Aim of study The purpose of our study was to evaluate how microcatheter and stent retriever interact with the aspiration catheter and how basic aspiration parameters are influenced.

Methods Two in-vitro set-ups were designed to evaluate the aspiration force and flow-rate of each aspiration catheter in the presence of the stent retriever and microcatheter inside.

Results The presence of the stent retriever and microcatheter inside the aspiration catheter reduced the flow-rate but the removal of the microcatheter allows implementation of the flow-rate. Stent retriever diameter and length had no effect on changes in flow-rate. The aspiration force was not affected by the presence of the stent retriever and microcatheter.

Conclusions Although the combination of stent retriever and aspiration catheter is effective in both clinical and in-vitro studies, the knowledge of how certain variables, such as flow-rate and aspiration force change as a result of the presence of stent retriever and aspiration catheter within the aspiration catheter, may be useful in implementing the combined technique in clinical practice.

REFERENCES
1. Stroke Vasc Neurol 2021;6:553–60. DOI: 10.1136/svn-2020-000833 [Published Online First: 2021/03/31]

Do you have any conflict of interest to declare?: No

P71 THE NEUROVASC ENVI STENT-RETRIEVER – INITIAL EXPERIENCE
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Introduction A variety of different devices stent-retrievers have entered the clinical market since mechanical thrombectomy (MT) became the gold standard of care for large vessel occlusive (LVO) ischemic stroke. Many of the stents share common design principles however, segmented stent-retrievers may have mechanical advantages over non-segmented designed devices. The Neurovac Envi stent-retriever is a novel segmented stent-retriever. We sought to evaluate its effectiveness and the rate of SAH in real world setting.

Methods We performed a retrospective review of our prospectively maintained database to identify all patients treated with the Neurovac Envi stent-retriever.

Results We identified 40 patients of average age 73 and median NIHSS of 15 (range 5–23). On baseline imaging the median ASPECT score on plain CT was 8 (range 5–10). The majority of clots were located in the M1 segment and mean clot length was 12.5mm with 4 tandem lesions. The first pass effect (eTICI ≥2c) was 50% and modified FPE (≥2b) was