Disclosure of Interest MR received research funding from Medtronic and
Vesalio MR declares ownership of Anaconda Biomed and Methinks shares. MR received consulting fees from Anaconda Biomed, Apta Targets, Medtronic, Stryker,

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P150/168 ACUTE ISCHEMIC STROKE DUE TO DISTAL VESSEL OCCLUSION TREATED WITH PRESET LITE STENT RETRIEVER. SINGLE CENTER EXPERIENCE

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Introduction Mechanical thrombectomy (MT) is standard treatment for large vessel occlusion (LVO). Despite MT is increasingly performed for distal vessel occlusions (DVO), evidence for its clinical benefit remains scarce.
Aim of Study In this study we assessed Single-Center efficacy and safety of DVO MT using stent retriever pREset-LITE (Phenox).
Methods Of 461 MT performed in our Center between 01/2021–04/2023, we treated with pREset 79 DVO in 71 consecutive Pt (median age 71,66/range 42–93, median NIHSS 13/range 6–24).
Results 71 Pt with 79 DVO underwent MT using pREset-LITE (3x20 o 4x20 mm).

73/79 cases pREset was used in combination with proximal aspiration catheter.

49 cases (62%) are primary distal occlusion, others were associated with PLVO.

We perfomed 61 MT on M2 segment (61/79, 77,2%), 7 on M3/M4 (8,9%), 7 on A2/A3 (8,9%) and 4 on P2-P3 (5,1%).

We performed a single-pass in 54 cases (68,3%), 2 passes in 11 (13,9%), ≥3 passes in 8 (10.1%).

TICI 3 was observed in 51 Pt (71,8%), TICI 2b/c in 15 Pt (21,1%), TICI 0/1 in 5 cases (7%).

Post-procedural asymptomatic SAH was observed in 26 Pt (36,6%), asymptomatic ICH in 8 (11,2%).

1 case of vessel rupture during MT lead to post-procedural exitus in 24h.

7 Pt (8,9%) died within 1 month after MT for clinical situation out of ischemic stroke.

mRS≤2 at 3 months was observed in 58 Pt (80.5%).
Conclusion Our Single-Center experience shows safety and efficacy of pREset stent retriever in MT for DVO. Further research is needed.
Disclosure of Interest Nothing to disclose

P151/175 DIRECT ASPIRATION WITH EMBOVAC – FIRST CLINICAL EXPERIENCE AND CLOT COMPOSITION (RESULTS THE "PERFECT' STUDY)

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Introduction EMBOVAC is a large bore aspiration catheter with an inner diameter of 0.071'.
Aim of Study PERFECT (NCT04531904, CERENOVUS) was a prospective, post-market, single-arm study to assess direct aspiration with EMBOVAC as first line therapy in patients with large vessel occlusion and analyse the composition of retrieved thrombus.
Methods Subjects were enrolled and followed across 11 European centres between October 2020 and July 2022. A minimum of 3 direct aspiration passes with EMBOVAC were mandated before switching strategy. The primary endpoint was core-lab assessed successful reperfusion (mTICI≥2b) post-procedure. Other outcomes included 90-day mRS by an independent evaluator, symptomatic intracerebral hemorrhage by an independent Clinical Events Committee, and clot analysis by an independent central clot lab.
Results Final mTICI≥2b was achieved in 98.0% (97/99) while final mTICI≥2c was reached in 86.9% (86/99) of patients. Final mTICI≥2b without rescue was reached in 87.9% (87/99). First pass mTICI≥2c without rescue was achieved in 53.5% (53/99). mRS≤2 at 90 days was 56.6% (56/99). All-cause mortality at 90 days was 12.9%. No patients experienced sICH at 24 hours post-procedure. One device-related SAE occurred within 90 days. Composition analysis revealed median 54.80% red blood cells and 24.90% fibrin.
Conclusion This is the first clinical evaluation of EMBOVAC. Direct aspiration with EMBOVAC as first line therapy resulted in high rates of reperfusion and favorable clinical outcomes. Clot composition analysis can aid in better understanding of the stroke etiology and means for effective clot removal.
Disclosure of Interest Acandis (OJ, CL, JF); Microvention (GM, CC, JF); Stryker (GM, CC, JF); Medtronic (GM, CC, JF); Surge2surgery (BG); MIVI (CC); Phenox (CL, JF); Penumbra (CL, JF); GSK (AS); German Ministry of Science & Education and Economy & Innovation, EU, Hamburgische Investitions-/Förderbank, Philips, Bayer, Boehringer Ingelheim,

Cerenovus, Covidien, Evasc Neurovascular, MD Clinicals, Medina, Roche, Route92, Tonbridge, Transverse Medical, Tegus Medical, Vastrax (JF); Science Foundation Ireland (KD), KL, HN, BE, AP, SB, AM, MP: nothing to disclose.

P152/178 SAFETY AND EFFICIENCY OF BRIDGING I.V. THROMBOLYSIS IN M2 OCCLUSIONS: A PROPENSITY-SCORE-MATCHED REGISTRY COHORT STUDY

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Introduction DIRECT-SAFE and SWIFT DIRECT did not show noninferiority of mechanical thrombectomy(MT) alone compared with intravenous thrombolysis(IVT) plus MT. However, for isolated M2-occlusions, data is scarce.

Aim of Study This study aims to evaluate safety and efficiency of bridging-IVT+MT compared to MT only in M2-occlusions.

Methods All patients prospectively enrolled in the German Stroke Registry-ET (05/2015–12/2021; N=13082) were screened for isolated M2-occlusions. Primary endpoint was defined as functional independence(90d mRS≤2), secondary endpoints were excellent outcome(90d mRS≤1), increase in mRS-points pre-stroke to 90d and successful reperfusion (TICI≥2b). Safety outcomes were intracranial hemorrhage (ICH) during treatment and symptomatic intracranial hemorrhage (sICH) at 24h(ECASS II). Propensity-score-matched cohorts (age, pre-stroke-mRS, NHISS-admission, ASPECTS, time symptom onset to admission) of patients receiving IVT +MT vs. MT alone were compared using standard descriptive statistics and multivariable regression.

Results N=618 matched cases were analyzed (IVT+MT:309; MT:309). No differences were found in age (77y), pre-stroke-mRS (0.8), NIHSS-admission (10.8) and recanalization success (TICI≥2b 84%). IVT was not associated with higher probability of functional independence, however, 90d-mRS (2.9 vs. 3.4, p<0.01) and pre-stroke to 90d-mRS increase (+2.1 vs. +2.6, p<0.01) was lower in patients receiving MT+IVT. No significant differences were found for ICH (MT:4.9%, MT +IVT:6.1%, p=0.481) and sICH (MT:3.9%, MT+IVT:2.9%, p=0.506).

Conclusion In M2-occlusions, MT+IVT was not associated with increased risk of sICH. Patients receiving MT+IVT had lower 90d-mRS and a lower increase in mRS pre-stroke to 90d. However, probability of functional independence and rates of successful recanalization were similar compared to matched controls.

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.

P153/189 ECONOMIC IMPACT OF IMPROVED FUNCTIONAL OUTCOMES ASSOCIATED WITH THE EMBOTRAP DEVICE VS. TREVO RETRIEVER AND SOLITAIRE REVASCULARIZATION DEVICE FOR TREATMENT OF ACUTE ISCHEMIC STROKE: AN ECONOMIC ANALYSIS OF MASTRO I FROM A GERMAN HOSPITAL PERSPECTIVE

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Introduction Stroke is a leading cause of death and disability globally, with an estimated European economic burden of € 45 billion annually. The MASTRO I meta-analysis found the use of the EmboTrap Revascularization Device during mechanical thrombectomy (MT) resulted in higher rates of good functional outcomes (90-day mRS 0–2) compared to the Trevo Retriever and Solitaire Revascularization Device.

Aim of Study This analysis estimates the cost-consequence of stent retriever (SR) choice based on results reported in MASTRO I.

Methods A cost analysis with a German hospital (short-term) perspective was developed using a decision tree to simulate index hospitalization costs for a cohort of acute ischemic stroke patients achieving mRS 0–2 vs 3–5 treated with EmboTrap, Trevo or Solitaire. Short-term costs were calculated per device based on hospital length of stay by mRS level and reported inpatient cost per day. Patients who died within 90-days of treatment (mRS 6) were excluded. Hospital cost savings were reported.

Results Assuming price parity across all three SRs, total per-patient short-term index hospitalization costs for EmboTrap, Trevo and Solitaire were € 12.723, € 13.328, € 13.482, respectively, resulting in cost savings favoring EmboTrap of € 604 vs Trevo and € 759 vs Solitaire. Cost savings persisted in sensitivity analysis based on varying premium pricing by 5–10% for EmboTrap.

Conclusion The use of EmboTrap in Germany may lead to reduction in short-term hospital costs, compared to Solitaire or Trevo due to improved patient functional outcomes (90-day mRS 0–2). These findings may inform evidence-based decision making when selecting a cost-efficient SR for MT.

Disclosure of Interest Osama Zaidat reports consulting fees for Stryker, Medtronic, Cerenovus, and Penumbra; research grants from Stryker, Medtronic, Cerenovus, Penumbra, and Genentech; in addition, Dr Zaidat had a patent for ischemic stroke issued.

Tommy Andersson is a consultant for Anaconda, Cerenovus, Neuravi and Rapid Medical, and holds equity in Ceroflo.