

$r=0.194$, 95%-CI=-0.314;0.615). Systemic BP did not correlate with the MAP distal to the clot ($p=0.899$, $R^2<0.001$, 95%-CI=-0.676;0.764) but with the MAP in the artery proximal to occlusion (e.g., $p<0.001$, $R^2=0.441$, 95%-CI=0.315;0.939).

Conclusion The intracerebral BP measured in the ischemic tissue distal to the LVO in AIS patients correlates with the extent of the ischemic core (i.e., ASPECTS), but not with collateral scores or systemic BPs. These results support the theory of impaired autoregulation in ischemic tissue and shed light on the pathophysiology of the BP mechanisms in AIS.

2.2. Imaging

P124 PICTORIAL OVERVIEW OF DUAL-ENERGY CT HEAD IMAGING IN POST-MECHANICAL THROMBECTOMY: A SPECTRUM OF BLOOD BRAIN BARRIER INJURY

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Introduction Dual-energy computed tomography (DECT) has emerged as a promising modality for evaluating patients following mechanical thrombectomy (MT) for acute ischemic stroke. This pictorial overview aims to demonstrate the diagnostic capabilities and clinical implications of DECT in this critical post-procedural phase.

Aim of Study To illustrate the utility of DECT in post-MT patients, highlighting its role in assessing post thrombectomy CT hyperattenuating lesion by delineating post-procedural contrast staining (CS) and haemorrhage transformation, thereby providing an assessment of the grade of underlying blood brain barrier (BBB) disruption.

Methods A retrospective analysis between December 2023 and March 2024 was conducted on a cohort of post-MT patients who underwent DECT imaging after 24 hours post procedure. Imaging data were assessed for underlying CS, HT and established infarct using DECT-derived iodine maps and virtual non-contrast (VNC) images.

Results A total of 61 studies were identified. 8 studies were excluded due to clot resolution on catheter angiogram or clinical deterioration post-MT requiring decompressive craniectomy. Post-MT DECT imaging performed demonstrates ability to delineate areas of parenchymal CS and HT, allowing differentiation between viable and infarcted brain tissue, and thereby enabling treatment stratification. Differentiation between subarachnoid space contrast leak and haemorrhage was also highlighted in this case series.

Conclusion Dual-energy CT head imaging emerges as a valuable adjunct in the post-MT evaluation of acute ischemic stroke patients. Its integration into routine clinical practice holds promise for enhancing diagnostic accuracy and guiding therapeutic planning, thereby improving patient outcome by ensuring the right anti-platelet/anti-coagulant strategy is deployed.

Disclosure of Interest no.

2.1. Logistics

P125 QUALITY IMPROVEMENT PROJECT YIELDS SIGNIFICANT, SUSTAINED STROKE TREATMENT ADVANCES ACROSS NATIONAL NETWORK

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Introduction Swift intervention is critical in acute ischemic stroke (AIS) management. Ireland's 'Door to Decision in under 30!' initiative aimed to expedite AIS assessment for thrombectomy, crucial for optimizing outcomes.

Aim of Study This study evaluates the five-year efficacy of the initiative on stroke treatment timelines.

Methods This longitudinal study spanned 22 Irish hospitals participating in an 8-month QI program, underpinned by the IHI Breakthrough Series Collaborative model. Multidisciplinary teams systematically mapped existing care processes, pinpointing key areas for enhancement. Utilizing Plan-Do-Study-Act (PDSA) cycles, targeted interventions were implemented, including pre-hospital alerts, patient pre-registration optimization, efficient staff paging and role allocation, immediate availability of decision-makers, administration of thrombolytic therapy in the CT room, and preparation of blood tests and imaging. The study meticulously tracked 'Door to CT', 'Door to Needle', and 'Door to Decision' times in AIS cases.

Results The period saw an increase in treated patients from 145 to 276. Concurrently, median Door to CT time significantly declined by 32.3% (from 31 to 21 minutes, $p=0.02$). Similarly, Door to Needle time decreased by 36.1% (from 61 to 39 minutes, $p=0.006$), Door to Mothership Contact by 38.5% (from 78 to 48 minutes, $p=0.013$), and Door to Decision by 37.8% (from 82 to 51 minutes, $p=0.008$). These improvements demonstrate the initiative's substantial impact on stroke care.

Conclusion The initiative led to significant and lasting improvements in AIS treatment efficiency, substantiating the collaborative, structured QI approach's role in clinical advancements.

2.3. Treatment

P126 THE PEGASUS – HPC STENT SYSTEM FOR INTRACRANIAL ARTERIAL STENOSIS – A SINGLE-CENTER CASE SERIES

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Introduction Intracranial arterial stenting is a technique for treatment of symptomatic stenosis causing acute and/or

recurrent ischemic stroke. In this single-center retrospective case series we evaluated a novel low profile laser-cut stent with an antithrombogenic hydrophilic polymer coating (pEGASUS-HPC, Phenox GmbH, Bochum, Germany) for the treatment of intracranial stenosis in the setting of thrombectomy and elective cases.

Aim of Study To evaluate whether bail-out and elective stenting using this stent is effective and save.

Methods All patients treated with pEGASUS-HPC for one or more intracranial arterial stenoses at our institution were retrospectively included. Clinical, imaging and procedural parameters as well as clinical and imaging follow-up data were collected.

Results We performed 43 interventions in 41 patients with 42 stenoses in our neurovascular center between August 2021 and February 2024. Twenty-one patients (51.2%) were female. Mean age was 71 years (+-10.8). Thirty-seven (86.1%) procedures were performed in the setting of endovascular acute ischemic stroke treatment. Technical or procedural complications occurred in seven patients (16.3%), six in the thrombectomy-group and one in the elective group. Two stent-related hemorrhagic complications in emergency cases (one SAH, one abdominal bleeding) were observed; one symptomatic intracerebral hemorrhage (sICH) occurred in a patient treated in an elective setting. Overall stenosis-reduction following pEGASUS-HPC stent-implantation was 53.0% (+-18.0). On follow up imaging, which was available for 16 patients (37.2%) after an average of 32 days (+-58.6), 62.5% of these stents were patent.

Conclusion Our single-center case series demonstrates the feasibility of using the pEGASUS-HPC stent system especially in emergency situations when thrombectomy fails.

Disclosure of Interest yes Daniel Pielenz: Phenox - travel expenses. David Fiorella: Medtronic, Cerenovous, Microvention, Penumbra, Stryker, Balt USA, Seimens, Mentice, Neurogami, Rapid.AI, Rapid Medical, Q'apel Medical, Arsenal Medical, Phenox, Scientia, NVMed, Perfuze, Vesalio - Consulting fees; Medtronic, Cerenovous, Microvention, Penumbra, Stryker, Balt USA, Q'apel Medical - Speaker honoraria; Medtronic, Cerenovous, Microvention, Penumbra, Stryker, Balt USA, Seimens, Mentice, Neurogami, Rapid.AI, Rapid Medical, Q'apel Medical, Arsenal Medical, Phenox, Scientia, NVMed, Perfuze, Vesalio - Travel expenses; Scientia, MENTICE, Neurogami, NVMed, Perfuze - Leadership role; Scientia, Perfuze, NVMED, Mentice, Neurogami - Stock options. Joachim Klisch: Phenox - travel expenses, speaker honoraria; Phenox, Microvention - Consulting fees (money paid to institution). Matthias Gawlitza: Phenox - speaker honoraria, consulting fees; Microvention - speaker honoraria, consulting fees; Balt - consulting fees; Simq GmbH - Scientific advisory board member. Andreas Steinbrecher, Elmar Lobsien, Elke Leinisch: none. Karl-Titus Hoffmann: Bayer - speaking honoraria, advisory fees. Donald Lobsien: Phenox - travel expenses, speaker honoraria (money paid to institution).

P127

REAL-WORLD PATIENT OUTCOMES FOLLOWING EMERGENT LARGE VESSEL OCCLUSION TREATED WITH THE EMOGUARD BALLOON GUIDE CATHETER

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Introduction The use of balloon guide catheters in the treatment of emergent large vessel occlusion is associated with better clinical outcomes at 90 days. There is limited data on whether the use of a balloon guide catheter is associated with a higher rate of clinical improvement prior to 90 days.

Aim of Study We aim to assess whether the use of the Emboguard Balloon Guide Catheter for treatment of acute ischemic stroke is associated with better neurological outcomes at discharge.

Methods Deidentified data from the Neurovascular Quality Initiative - Quality Outcomes Database (NVQI-QOD) was analyzed. The database was reviewed to identify patients who underwent mechanical thrombectomy for emergent large vessel occlusion with an Emboguard Balloon Guide catheter. Baseline patient demographic, clinical, and imaging characteristics, and clinical and imaging outcomes were assessed.

Results 71 patients underwent mechanical thrombectomy between September 2022 and January 2024. Their mean age is 69.3 ± 14.8 years. 65 (91.5%) of patients had a baseline (mRS) of 0-1, and an NIH Stroke Scale score of 16.5 ± 7.1 . 52% had an M1 occlusion, and 21.5%, a tandem occlusion. Reperfusion occurred at 9.5 ± 8.6 hours from estimated onset. The mean access-to-reperfusion time was 39.5 ± 20.4 minutes, with mTICI 2b-3 reperfusion in 91.6%. There was a 10-point decrease in mean NIHSS at discharge (6.5 ± 6.9). No complications occurred related to the balloon guide catheter. At discharge, 32.4% of patients went to acute rehabilitation and 36.6% returned home.

Conclusion In the NVQI-QOD, the use of the Emboguard Balloon Guide Catheter is associated with excellent clinical outcome at discharge.

Disclosure of Interest yes JP Tsai: Consultant for Cerenovous; MS Hussain: Scientific Advisory Board for Cerenovous, Clinical Event Committee Chair for MEMBRANE study.

P128

TENZING®-DOTTER TECHNIQUE FOR ENDOVASCULAR MANAGEMENT OF ATHEROSCLEROTIC CERVICAL ICA TANDEM LARGE VESSEL OCCLUSIONS

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Introduction The optimal endovascular treatment approach of acute tandem large vessel occlusion (TLVO) stroke remains unclear. Tenzing (Route 92 Medical, San Mateo, CA) delivery catheters have atraumatic tapered distal tips that may permit Dotter angioplasty and delivery of 0.070-0.088 catheters through cervical steno-occlusions to gain intracranial access for LVO thrombectomy.

Aim of Study We describe our initial experience using the novel Tenzing-Dotter technique in TLVO patients.

Methods We retrospectively reviewed clinical and angiographic data of consecutive TLVO patients treated with Tenzing-Dotter technique using Tenzing® 7 and Tenzing® 8 at our center.

Results Twenty TLVO patients were identified: mean age was 65(44 - 89); 40% female. The mean NIHSS was 14(7-25). The ipsilateral cervical ICA was occluded in 11/20(55%) or severely stenotic in 9/20(45%). The intracranial LVO were carotid terminus (5), M1 (14) and M2 (1). Seven patients were treated with Tenzing 7 paired with a 0.070' catheter, while 13 were treated with Tenzing 8 paired with a 0.088' catheter.