

preferred therapy, however, optimal approach and predictive outcome variables remain unclear.

Aim of Study To analyse and assess predictive demographic, treatment and imaging features for TL patients' outcome.

Methods This retrospective, mono-centric cohort study analyses 116 consecutive patients with TL treated with EVT from 2009 to 2022 with individual inquiry of their clinical, imaging and outcome data at a stroke centre.

Results The patients were median 72 years old, among those, 31% female. The median NIHSS on admission was 14, while the ASPECT and NASCET scores were 9 and 99% respectively. 52% of patients received intravenous lysis therapy pre-interventional. In 77%, an antegrade EVT approach was used. Adequate revascularization (mTICI2b3) was achieved in 83% with a median of one pass, whilst a mRS-score from 0 to 2 was attained in 41%. However, the total mortality rate was high at 44%. Age, stroke severity (NIHSS at admission) and outcome factors showed significant correlations. Long-term mortality associates with neurological problems and diabetes mellitus separately.

Conclusion EVT for TL is safe and effective. Lower age and shorter procedural time both correlate with successful outcomes, but the fact that stroke severity, neurological issues and diabetes are linked to higher mortality shows the connotation of comorbidities with long-term survival.

Disclosure of Interest All authors:

Nothing to disclose

P176/321 USING THE ONYX RESOLUTE STENT FOR LARGE VESSEL OCCLUSIONS AND UNDERLYING INTRACRANIAL ATHEROSCLEROTIC DISEASE

Sonam Thind*, Rami Z Morsi, Sachin Kothari, Harsh Desai, Julian Carrion Penagos, Ammar Tarabichi, Shyam Prabhakaran, Tareq Kass-Hout. *University of Chicago Medical Center, Chicago, USA*

10.1136/jnis-2023-ESMINT.203

Introduction Large Vessel Occlusion LVO in the setting of underlying intracranial atherosclerosis disease ICAD is challenging with limited data to suggest best therapy

Aim of Study To report a case of using Onyx Resolute stent in setting of LVO with underlying ICAD with very complex anatomy

Methods We present a case of a 79-year-old female who was found acute onset loss of consciousness and weakness in both arms. Her work up showed acute occlusion of mid basilar artery

Results Thrombectomy was successfully performed through radial artery using Infinity catheter and Zoom 71 aspiration catheter with no success. Solitaire stent was then used and showed recanalization with underlying severe stenosis that re-occluded minutes after. We tried introducing Onyx resolute through the Infinity guide catheter and a Sophia catheter with no success due to the tortuosity of the anatomy. This resulted in severe damage to both the infinity and the Sophia catheters. A 6F shuttle was then used to access the right vertebral artery and Navien 5F was then used to gain access over phenom 21 catheter. The phenom 21 catheter was then used to access left PCA. This catheter was then exchanged out over a stiff run-through wire and the Onyx Resolute stent was then introduced successfully and inflated in place. Patient recovered from her stroke with minor deficit

Conclusion Onyx Resolute might be indicated for ICAD in LVO settings. Its stiff system needs better tools to be able to navigate tortuous anatomy

Disclosure of Interest The authors have nothing to disclose.

P177/324 TO BRIDGE OR NOT TO BRIDGE IN ICA OCCLUSION, THAT IS THE QUESTION: SINGLE-CENTRE 9-YEAR EXPERIENCE

^{1,2}David Lauer*, ³Jakub Sulženko, ³Boris Kožnar, ³Dušan Kučera, ²Tomáš Peisker, ²Peter Vaško, ²Petr Mikulénka, ¹Hana Malíková, ²Ivana Štětkařová, ³Petr Widimský. ¹University Hospital Královské Vinohrady, Department of Radiology and Nuclear Medicine, Prague, Czech Republic; ²University Hospital Královské Vinohrady, Department of Neurology, Prague, Czech Republic; ³University Hospital Královské Vinohrady, Department of Cardiology, Prague, Czech Republic

10.1136/jnis-2023-ESMINT.204

Introduction Several randomised controlled trials proved efficacy of mechanical thrombectomy (MT) in treating acute ischemic stroke (AIS) but provided limited data about added benefit of bridging thrombolysis (BT) in AIS caused by internal carotid artery (ICA) occlusion.

Aim of Study To carry out a retrospective single-centre analysis of prospectively collected data of patients with AIS due to ICA occlusion treated with MT alone or MT+BT to evaluate the impact of BT in this specific subgroup of patients.

Methods Patients with ICA occlusion treated with MT or MT+BT were retrospectively analysed. Demographic data, risk factors, technical and clinical outcomes and complications were compared. Propensity score (PS) analysis was used to compare modified Rankin Scale (mRS) score and mortality at 3 months after treatment between groups.

Results 105 patients (51% MT/49% MT+BT) treated between September 2013 and December 2022 were included. There was a higher number of wake-up strokes (31% vs 11%, $p=0.029$) and female patients (46% vs 23%, $p=0.014$) in MT group, otherwise baseline characteristics did not differ. There was no difference in reperfusion success, complications, and technical aspects between groups. The rate of symptomatic intracranial haemorrhage did not differ among groups (12% vs 9%, $p=0.761$). PS analysis showed no significant difference in mRS ≤ 2 at 3 months (OR=1.417, 95% CI 0.6–3.4, $p=0.436$) as well as no difference in mortality at 3 months (OR=1.329, 95% CI 0.5–3.2, $p=0.532$).

Conclusion We observed no significant difference in clinical outcome at 3 months after treatment between patients treated with MT alone versus MT+BT.

Disclosure of Interest Nothing to disclose

3.3 OTHER – Miscellaneous

P178/67 INTRACRANIAL VESSEL SIZE COMPARISON BETWEEN EUROPEAN AND CHINESE POPULATIONS FOR NEUROVASCULAR APPLICATIONS

¹Mahmood Mirza*, ¹Suzanne Lascalza, ¹Jie Wang, ²Katherine Kummer, ¹Patrick Brouwer. ¹Cerenovus, Medical and Clinical Affairs, Galway, Ireland; ²Superior Medical Experts, St. Paul, USA

10.1136/jnis-2023-ESMINT.205

Introduction Neuro-interventional models are often used to develop, test, and compare devices and techniques. Their implications depend greatly on accurate modeling of the vessel diameters, which may be impacted by ethnic variations.

Aim of Study To determine if vessel size differences exist between the European and Chinese populations.

Methods A systematic review of the literature in the PubMed database was performed to identify studies reporting vessel diameters obtained through validated imaging on healthy European and Chinese populations from Jan 2000 until Jul 2022. All Circle of Willis vessels were studied, at least 5 articles per vessel were needed to perform a meta-analysis using a random-effects model. Analyses were performed using RStudio (2022.07.2+576), and results reported as means (in mm) with 95% CI.

Results A total of 595 studies were screened, of which 28 could be analyzed quantitatively. The M1 diameter for the European population (2.37 mm [95% CI: 2.26–2.49]) was not different from the Chinese population (2.60 mm [95% CI: 2.32–2.93]) ($p=0.149$, $I^2=99.2\%$). The BA diameter for the European population (2.92 [2.49–3.43]) was smaller compared to the Chinese population (3.66 [3.27–3.99]) ($p=0.014$, $I^2=98.2\%$). Lastly, the VA diameter for the European population (2.87 mm [2.57–3.20]) was similar to the Chinese population (2.67 mm [2.32–3.07]) ($p=0.427$, $I^2=98.3\%$).

Conclusion In this meta-analysis, the MCA M1 and VA diameters were found to be similar for European and Chinese populations, while the BA was smaller in the European population. This suggests most models are already capturing ethnic variations in vessel size.

Disclosure of Interest MM, SL, JW, and PB are employees of Cerenovus. KK is an employee of Superior Medical Experts.

P179/71 TRANS-VASCULAR HF_OCT IMAGING: FROM ANIMAL MODELS TO HUMANS

Vania Anagnostakou*, Mark Epshtein, Matthew Gounis. *Department of Radiology, New England Center for Stroke Research, UMass Chan Medical School, Worcester, USA*

10.1136/jnis-2023-ESMINT.206

Introduction High-frequency optical coherence tomography (HF-OCT), is an intravascular imaging modality with unprecedented resolution for in vivo imaging (~10 μ m). We describe our preclinical and ex-vivo cadaveric observations of intracranial vasculature and its environment.

Aim of Study To investigate the potential of HF-OCT imaging (Gentuity, USA) in the preclinical setting.

Methods A canine model was used for imaging through the posterior and anterior circulation to study the vascular, perivascular environment and subarachnoid space (SAS) structures. Implants of the basilar or middle cerebral artery were used to study implant behavior and healing process. A porcine model was used to image the venous sinuses. In addition to classic OCT-pullbacks, dynamic HF-OCT imaging of specific locations through time was performed. Ex-vivo cadaveric imaging was consecutively performed through the arterial and venous segments. Suitable combinations of guiding catheters, microcatheters and microwires were used to achieve access to desired locations. Images were acquired with the use of contrast to clear the blood.

Results High-resolution images of the vasculature were obtained from the arterial and venous sites in all cases. The architectonics of the SAS were studied and classified, with extensive similarities between animals and human cadavers. Apposition of intravascular implants and endothelial coverage/intimal hyperplasia not seen with conventional imaging was imaged with HF-OCT. Vessel wall pathology in human cadavers was seen in detail.

Conclusion HF-OCT imaging can offer detailed visualization of the vessel wall and perivascular environment, expanding its use from vessel wall pathology and implant behavior to hydrocephalus and aneurysm formation.

Disclosure of Interest VA, ME: Nothing to disclose

MG: No relevant disclosures

P180/99 MORE THAN JUST NOISE: ASSOCIATION OF PULSATILE TINNITUS WITH ANXIETY, DEPRESSION AND REDUCTION OF QUALITY OF LIFE

¹Matthew Amans*, ¹Raghav Mattay, ²Nancy Hills, ¹Eric Smith, ¹David Mccoy, ¹Kazim Narsinh, ³Karl Meisel. ¹University of California San Francisco, Radiology and Biomedical Imaging, San Francisco, California, USA; ²University of California San Francisco, Epidemiology and Biostatistics, San Francisco, California, USA; ³McLaren Northern Michigan Hospital, Neurology, Petoskey, Michigan, USA

10.1136/jnis-2023-ESMINT.207

Introduction Patients with pulsatile tinnitus (PT) can have potentially devastating psychological impact, which effect how best to treat these patients, many options which include endovascular treatment.

Aim of Study Objectives of this study include quantifying the prevalence of depression and anxiety in the United States PT population as well as identifying demographic risks associated with effects of PT on depression and anxiety.

Methods Subjects were recruited from online PT groups. Questionnaires utilizing the validated Tinnitus Functional Index (TFI) were combined with demographic questions in a secure online survey. In addition, the PHQ-9 and GAD-7 questionnaires were used to obtain the prevalence of concurrent depression and anxiety, respectively. Results were collected over a 5-month period.

Results A total of 515 surveys were included (84% female, 65% unemployed, mean(sd) age was 46.4 years (14.2)). Median (IQR) symptom duration was 1.9 (0.56, 4.8) years. Survey data showed 46% and 37% of subjects with moderate to severe depression and anxiety, respectively. Higher TFI scores were associated with moderate to severe depression (OR 1.07; 95%CI 1.06–1.09, $p<0.001$) and anxiety (OR 1.05, 95% CI 1.04–1.06, $p<0.001$), with TFI subscores also independently being associated in a univariate analysis.

Conclusion The prevalence of moderate to severe depression and anxiety in the PT population, which was previously unknown, is estimated in our study to be 46% and 37%, respectively. Furthermore, increasing TFI total score was significantly associated with increased depression and anxiety scales adding further evidence of the impact of PT on the psychological health of these patients.

Disclosure of Interest Nothing to disclose