outcome was defined as 1–3 months modified Rankin Scale (mRS). All patients were divided into three groups based on their follow-up mRS. Patients with mRS 0–2, patients with mRS 3–5 and patients with mRS 6.

Results A total of 66 patients with stenosis or occlusion of posterior circulation presenting with acute ischemic stroke were identified. Out of 66, complete imaging review of 52 patients was completed. Out of 52, no BAO occlusion or high grade stenosis was identified in 11 patients on vascular imaging. In 8 patients, there was no follow-up mRS score or baseline vascular imaging available. Thirty-two patients were included in the final analysis, out of which, 10 patients were mRS 0–2 group, 6 patients were in mRS 3–5 group and 16 patients were in mRS 6 group (see Table 1). Mean age in both groups was 64.7, 51.6 and 69.2 years respectively with male predominance. Hypertension was the most common baseline comorbidity in all groups. In mRS 6 group, 37.5% had occlusion in vertebrobasilar junction. Thrombectomy was performed in 40%, 33.3% and 37.6% patients respectively. The last known well (LKW) to groin puncture time was increased in patients with mRS 6.

Conclusion This retrospective analysis of BAO database depicts that older age, presence of HTN, history of prior stroke, location of clot at vertebrobasilar junction, and absence of bilateral posterior communicating arteries is associated with higher mortality. Moreover, delayed time to groin puncture was also observed in patients with higher mortality. Large scale studies are needed to validate these findings.

Disclosures A. Zafar: None. S. Suriya: None. M. Farooqui: None. A. Ikram: None. S. Ortega-Gutierrez: None. M. Torbey: None.

E-103 SHORT-TERM IN-HOSPITAL OUTCOMES OF THROMBOLYSIS FOR ACUTE ISCHEMIC STROKE PATIENTS WITH NON-PRIMARY BRAIN TUMORS AND CONGESTIVE HEART FAILURE

K Tong*, T Colburn, P Brauer. *Anatomy, Kansas City University of Medicine and Biosciences, Kansas City, MO*

10.1136/neurintsurg-2019-SNIS.178

Background Intravenous thrombolysis remains an underutilized treatment for acute ischemic stroke (AIS) due to several relative and absolute contraindications. Previous studies have found similar outcomes after thrombolysis between AIS patients with benign brain tumors and AIS patients without. This study aims to investigate short-term outcomes of thrombolytic treatment for the greater majority of AIS patients who have no history of primary brain tumors, particularly those with congestive heart failure (CHF).

Methods This retrospective cohort study utilized data from the 2012–2015Q3 Nationwide Inpatient Sample (NIS). ICD-9 codes identified adult patients (ages 18+) who suffered acute ischemic stroke and received intravenous thrombolysis, and then further isolated patients diagnosed with CHF. Data for patients who were missing important clinical identifiers (age, gender, race, mortality), did not receive IV thrombolysis, and had primary brain tumors (benign or malignant) were excluded. Data analyses assessed hospital mortality rate, length of stay (LOS), inpatient charges, and average age at admission.

Results Of the 24,692 encounters with AIS patients treated with thrombolysis and had no history of primary brain tumors, 4130 were diagnosed with CHF.

- Mean mortality rate was significantly increased (11.3% CHF vs. 11.8% no CHF, $p < 0.0001$).
- Mean LOS was significantly longer (7.63 days CHF vs. 6.08 days no CHF, $p < 0.0001$).
- Average total charges were significantly increased (\$96,978.03 CHF vs. \$83,905.14 no CHF, $p < 0.0001$).
- Average age at admission was significantly older (70.68 years CHF vs. 66.32 years no CHF, $p < 0.0001$).

Conclusion This study aims to inform physicians to better manage AIS patients receiving IV thrombolysis with CHF and no history of primary brain tumors. These patients experience higher mortality rate, longer LOS, increased total hospital charges, and older age at admission than those without CHF. These findings suggest that placing clinical focus on the coexisting condition of CHF before administering IV thrombolysis for AIS may be critical for improving short-term in-hospital outcomes. Future research should aim to investigate different thrombolytic agents to determine the most optimal choice for patients with congestive heart failure.

Disclosures K. Tong: None. T. Colburn: None. P. Brauer: None.

E-104 THE USE OF MECHANICAL THROMBECTOMY IN POSTERIOR CIRCULATION ACUTE ISCHEMIC STROKES

A Sweid*, K Hafazalla, S Tjoumakaris, V Xu, K Shivashankar, T Alexander, M Gooch, N Herial, N Chalouhi, R Rosenwasser, P Jabbour. *Neurosurgery, Thomas Jefferson University, Philadelphia, PA*

10.1136/neurintsurg-2019-SNIS.179

Objective 20% of all acute ischemic strokes (AIS) occur in the posterior circulation (PC), which carry a high mortality rate close to 95%. Early recanalization improves outcomes as shown by several reports. Often trials excluded patients with posterior circulation strokes. We sought to investigate the prevalence, safety, and the clinical outcomes of PC-MT at our institution.

Methods A retrospective review of patients presenting with PC AIS who underwent mechanical thrombectomy at a tertiary referral center between 2010 and 2018.

Results Out of 453 patients who underwent mechanical thrombectomy for AIS, 45 patients had a PC stroke (av age 58 years, 56% male). The mean NIHSS upon admission was 17 (95%CI:14–20). The mean time from symptoms onset to groin puncture was 9 hours (95%CI:6–11), the mean procedure time was 53 minutes (95%CI:43–64) and mean time to revascularization, from symptoms onset was 866 minutes (95%CI:602–1129). Only 33% received tPA. Vessels involved included the basilar artery (87%, $n=39$), the posterior cerebral artery (4%, $n=2$), and the vertebral artery (9%, $n=4$). The procedures were divided into stentriever alone (22%, $n=10$), aspiration alone (13%, $n=6$), and stentriever with aspiration (51%, $n=23$), and failed procedure in 13% ($n=6$) of individuals. Most procedures required one pass to recanalize the vessel (44%, $n=20$). TICI $\geq 2b$ was achieved in 69% of the subjects. Mean length of stay was 11 days (95%CI:8–14). Mortality rate was 38% and independent functional outcome of

mRS ≤ 2 at three months was seen in 20% of the patients. On univariate analysis extravasation was significantly higher in PC compared to anterior circulation (AC) (9% vs 4%, $p < 0.01$) as well as post-procedural sICH (13% vs. 4%, $p = 0.01$); vessel recanalization (TICI $\geq 2b$) was significantly lower in PC compared to AC (70% vs 90%, $p < 0.01$); mortality rate was significantly higher in patients with PC compared to AC (38% vs 9%, $p < 0.01$). On multivariate analysis AC had a significantly shorter LOS by about three days, compared to PC (coef: -3.04, 95%CI: -6.05 to -0.14, $p < 0.05$). There was no difference in odds of achieving a good TICI score. The AC group also had almost four times greater odds of having a good mRS (OR: 3.69, 95%CI: 1.06–12.8, $p < 0.05$). They also had significantly lower odds of mortality, by around eighty-eight percent (OR: 0.12, 95%CI: 0.05–0.31, $p < 0.01$).

Conclusions MT is a safe and efficacious first-line therapy for PC strokes. PC-MT provides a high rate of recanalization without procedural complications. Improvement in functional outcome remains low, and mortality remains high, but with a much better outcome than leaving the disease untreated.

Disclosures A. Sweid: None. K. Hafazalla: None. S. Tjoumakaris: None. V. Xu: None. K. Shivashankar: None. T. Alexander: None. M. Gooch: None. N. Herial: None. N. Chalouhi: None. R. Rosenwasser: None. P. Jabbour: None.

E-105 PREDICTORS OF EXCELLENT OUTCOMES POST THROMBECTOMY IN LARGE VESSEL OCCLUSION WITH MILD STROKES

¹A Pandhi*, ¹N Goyal, ¹G Tsvigoulis, ²K Malhotra, ¹M Ishfaq, ³M Frohler, ⁴A Spiotta, ⁴M Anadani, ⁵M Psychogios, ⁵V Maus, ⁶A Siddiqui, ⁶M Waqas, ⁷P Schellinger, ⁷M Groen, ¹⁰O Saeed, ⁸C Krogias, ⁸D Richter, ⁹M Saqqur, ⁹P Bermejo, ¹⁰M Mokin, ¹¹R Leker, ¹²A Katsanos, ¹³G Magoufis, ¹³K Psychogios, ¹⁴V Lioutas, ¹⁴M VanNostrand, ¹⁵V Sharma, ¹⁶M Paciaroni, ¹⁷A Rentzos, ¹⁸H Shoirah, ¹⁸J Mocco, ¹⁹D Hoit, ¹⁹L Eljovich, ¹A Alexandrov, ¹⁹A Arthur. ¹Neurology, UTHSC, Memphis, TN; ²Neurology, West Virginia University, Morgantown, WV; ³Cerebrovascular, Vanderbilt University, Nashville, TN; ⁴Neurosurgery, Medical University of South Carolina, Charleston, SC; ⁵Neuroradiology, University Medical Center Göttingen, Göttingen, Germany; ⁶Neurosurgery and Radiology, University of Buffalo, Buffalo, NY; ⁷Neurology and Neurogeriatrics, Johannes Wesling Medical Center Minden, Minden, Germany; ⁸Neurology, St. Josef-Hospital, Ruhr University of Bochum, Bochum, Germany; ⁹Neurology, Hammad Medical Center, Doha, Qatar; ¹⁰Neurosurgery, University of South Florida, Tampa, FL; ¹¹Neurology, The Agnes Ginges Center of Neurogenetics, Hadassah-Hebrew University Medical Center, Jerusalem, Israel; ¹²Neurology, National and Kapodistrian University of Athens, 'Attikon' University Hospital, Athens, GREECE; ¹³Acute Stroke Unit, Metropolitan Hospital, Piraeus, Greece; ¹⁴Neurology, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA; ¹⁵Neurology, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore; ¹⁶Stroke unit, Divisione di Medicina Cardiovascolare, Università di Perugia, Perugia, Italy; ¹⁷Interventional and Diagnostic Neuroradiology, Department of Interventional and diagnostic Neuroradiology, Gothenburg, Sweden, Gothenburg, Sweden; ¹⁸Neurosurgery, Mount Sinai Medical Center, New York, New York, NY; ¹⁹Neurosurgery, UTHSC and Semmes Murphery Clinic, Memphis, TN

10.1136/neurintsurg-2019-SNIS.180

Background As the randomized controlled trials excluded the patients with emergent large vessel occlusion (ELVO) strokes with low NIHSS < 6 , the efficacy and safety of mechanical thrombectomy (MT) in this cohort is lacking. We sought to explore the predictors of excellent outcomes after MT in this international multicenter study.

Methods Stroke patients with ELVO and NIHSS < 6 treated with MT were identified from 16 high volume endovascular stroke centers over a 4 year period (2013–2017). Predictors of excellent outcomes post MT were evaluated. Baseline demographic, clinical and procedural variables were obtained.

Successful recanalization was defined as mTICI 2b and 3. Excellent outcomes are defined as modified Rankin Stroke (mRS) scale of 0–1 at 3 months.

Results Total of 146 patients with low NIHSS ELVO were included in the study. Of those, 95 (65%) patients (48% male, 71% Caucasians, mean NIHSS 3.6 ± 1.3) had excellent outcome (mRS 0–1), while remaining 51 (35%) patients (57% male, 72% Caucasians, mean NIHSS 3.8 ± 1.4) had poor outcome (mRS 2–6). The patients who had excellent outcome had lower age at presentation [years, mean (SD) 61.6 ± 17.2 vs. 68.9 ± 18.6 ; $p: 0.012$], higher rates of successful recanalization [91.2% vs. 74%; $p: 0.012$], and shorter groin puncture to recanalization time [minutes, mean (SD): 43.4 ± 27.3 vs. 60.4 ± 41.5 , $p = 0.008$] compared to poor outcome group. The mean baseline ASPECTS tended to higher in excellent outcome group (9.3 ± 1.0 vs. 8.9 ± 1.3 , $p = 0.08$). In multivariable analyses after adjustment for potential confounders, lower age (OR: 0.96, 95% CI 0.93–0.99, $p = 0.034$), shorter groin puncture to recanalization time (OR: 0.97, 95% CI 0.96–0.99, $p = 0.003$), and successful recanalization (OR: 11.2, 95% CI 1.5–80.4, $p = 0.016$) were independent predictors of excellent outcome at 3 months.

Conclusions Our retrospective multi-center study demonstrates that lower age, shorter groin puncture to recanalization time and successful recanalization were independent predictors of excellent outcomes post MT in ELVO patients with NIHSS < 6 .

Disclosures A. Pandhi: None. N. Goyal: None. G. Tsvigoulis: None. K. Malhotra: None. M. Ishfaq: None. M. Frohler: None. A. Spiotta: None. M. Anadani: None. M. Psychogios: None. V. Maus: None. A. Siddiqui: None. M. Waqas: None. P. Schellinger: None. M. Groen: None. O. Saeed: None. C. Krogias: None. D. Richter: None. M. Saqqur: None. P. Bermejo: None. M. Mokin: None. R. Leker: None. A. Katsanos: None. G. Magoufis: None. K. Psychogios: None. V. Lioutas: None. M. VanNostrand: None. V. Sharma: None. M. Paciaroni: None. A. Rentzos: None. H. Shoirah: None. J. Mocco: None. D. Hoit: None. L. Eljovich: None. A. Alexandrov: None. A. Arthur: None.

E-106 OUTCOME OF MECHANICAL THROMBECTOMY WHEN IV THROMBOLYSIS IS NOT ELIGIBLE

J Sung*, M Lee, D Lee, H Lee, S Yang. Department of Neurosurgery, St. Vincent's Hospital, The Catholic University of Korea, Suwon, Korea, Republic Of

10.1136/neurintsurg-2019-SNIS.181

Introduction Mechanical thrombectomy (MT) after intravenous thrombolysis (IVT) is recommended in acute ischemic stroke (AIS) patients with large artery occlusion (LAO). But in cases of ineligible for IVT, MT is the only option. The aim of this study is to evaluate the efficacy and outcome of MT in case of ineligible for IVT.

Method Retrospective analysis was performed in consecutive patients treated between January 2016 and November 2018 for AIS with LAO. Patient demographic data were collected and clinical outcome, procedure details and complication rate were compared.

Results During the period, 80 patients were visited within 4.5 hours from onset, but only 31 underwent MT alone due to contraindication (MT group). And 49 underwent MT combined IVT (MTIVT group). There was no significant