left-sided stroke patients, the TICI scores (R=+0.643), WAB scores (spontaneous speech R=+0.642, repetition R=+0.630, object naming R=+0.681) and mRS scores at discharge (R=-0.693) correlated with arcuate and superior longitudinal fasciculus tract counts (all p<0.05). The inferior longitudinal fasciculus tract count also correlated with other WAB scores (functional content R=+0.658, sequential commands R=+0.665) (all p<0.05). Except for discharge mRS correlating with the arcuate and superior longitudinal fasciculi (R=-0.826, p=0.003), the remaining clinical measures were not correlated with right-sided stroke patients’ arcuate, superior longitudinal, and inferior longitudinal fasciculi.

Conclusion For left-sided MCA occlusions, TICI scores were well correlated with increased arcuate and superior longitudinal fasciculi tract counts after MT. After recanalization of the left MCA, increased number of arcuate, superior longitudinal, and inferior longitudinal fasciculi tracts is associated with improved speech function measured by the WAB test. These two findings were not apparent in right-sided MCA occlusions, perhaps due to the minimal role of the right cerebral hemisphere in speech. Tract count analysis of the arcuate, superior longitudinal, and inferior longitudinal fasciculi for either right- or left-MCA occlusions correlated with discharge mRS, indicating that a higher number of tracts measured within 4 days of MT could act as a proxy for patient’s overall independence status by discharge. While larger, prospective studies are needed to confirm these findings, automated tractography could yield novel avenues into patient screening during post-operative recovery of speech function.


E-236 COMPARISON OF PIPELINE VS SURPASS FLOW DIVERTER: A SINGLE CENTER EXPERIENCE

1A Pandhi, 1A Kashkoush, 1M Bain, 2Endovascular Surgical Neuroradiology, Cleveland Clinic, Cleveland, OH; 3Neurosurgery, Cleveland Clinic, Cleveland, OH; 4Endovascular Surgical Neuroradiology and Neurosurgery, Cleveland Clinic, Cleveland, OH

Background Multiple flow diversion embolization devices have currently been used to treat side wall intracranial aneurysms. However, there are no robust head-to-head comparison studies of these devices in clinical practice. We sought to compare two major flow diverters used, Pipeline vs Surpass in operative and post-operative settings.

Method We retrospectively analyzed our procedural database for use of all flow diverters including pipeline vs surpass flow diverters. Baseline demographic variables were collected and compared between each group. In addition, safety variables such as procedural or post-procedural complications were compared between the two groups.

Results A total (=n) of 221 were included in this retrospective chart review. 179 (81%) were pipeline cases. Baseline smoking status was similar between both groups. Majority were unruptured aneurysms and only close to a quarter in each of the groups. The width (in mm) was significantly smaller in pipeline cases [3.9 mm (2.5 - 7) vs surpass [6.1 mm (3.9 - 9.5); p value of 0.008]. Safety outcomes including intracranial hemorrhage (0% vs 0%), stroke (2 [1%] vs 2 [4%]), seizure [1 (0.5%) vs 1 (2%)], intracranial hypertension [4 (2%) vs 0%], vasospasm [3 (2%) vs 0%], vessel perforation [0% vs 0%], thrombus formation [0% vs 1 (2%)], aneurysm rupture (0% vs 0%) was comparable between pipeline vs surpass flow diverter groups and with no statistical significance.

Conclusions In our single-center retrospective experience in the last 5 years, the Pipeline and Surpass were comparable except that the Surpass flow diverter cases tended to have a higher baseline aneurysm width compared to Pipeline. However, the procedural outcomes and complication rates were comparable between both groups. Long-term and follow-up data to be evaluated for efficacy outcomes assessment.

Disclosures A. Pandhi: None. A. Kashkoush: None. M. Bain: None.

E-237 A 911 CONTINUATION OF CARE PROTOCOL REDUCES DOOR IN, DOOR OUT TIME FOR TRANSFER PATIENTS WITH EMERGENT LARGE VESSEL OCCLUSION

1R Shaw, 2H Rho, 3N Sangha, 4J Saver, 5C Liang, 1Quality, Kaiser permanente, Fontana, CA; 2Quality And Regulatory Services, Kaiser Permanente, Pasadena, CA; 3Neurology, Kaiser Permanente, Los Angeles, CA; 4Neurology, Ucla David Geffen School Of Medicine, Los Angeles, CA; 5Neurosurgery, Kaiser Permanente, Fontana, CA

Introduction/Background Rapid reperfusion with mechanical thrombectomy (MT) for emergent large vessel occlusion leads to significant reduction in morbidity and mortality. Time from symptom onset to reperfusion is the main modifiable predictor of functional independence, which decreases by 10–15% for each 30 minutes of delay. In the Kaiser Permanente Southern California (KPSC) hospital system, patient transfers from non-interventional to interventional facilities typically utilize the Emergency Tertiary Assistance Program (ETAP), a centralized group of nurses who coordinate physician communication and arrange for ambulance pickup. However, in San Bernardino County (CA), 911 continuation of care (COC) is an alternative method available for transferring MT patients. The COC process allows the sending hospital to call 911 and the nearest ambulance will respond to transport the patient to the thrombectomy center. We compared door in, door out (DIDO) times for patients transferred via the COC protocol versus patients transferred by the standard ETAP protocol to determine whether transfer protocol would impact DIDO time.

Methods | We performed a retrospective analysis of consecutive stroke patients transferred from two primary stroke centers for MT between January 1, 2021 and January 30, 2022. Patients were identified from stroke coordinator logs. Clinical records were reviewed and demographic and clinical information were extracted. Patients were divided into two groups, those transferred via the COC protocol and those transferred by the standard ETAP system. Demographic and clinical variables were compared using t-test for continuous variables and chi-square for categorical variables. The primary outcome was DIDO time.

Results Thirty-two patients were identified. Of these, 12 (38%) were transferred by COC and 20 (63%) were transferred by ETAP. There was no significant difference in age (p = 0.69), gender (p = 0.92), or presenting NIHSS (p = 0.47). Rates of thrombolytic started at the sending hospital were 42% (5/12) in patients using COC and 55% (11/20) in patients using ETAP (p = 0.71). There was no significant difference in DIDO time between internal KPSC transfers (median 90 min, N=6) and transfers out of system (median...
Conclusion Utilizing the 911 COC process for EMS transport of patients eligible for MT reduced DIDO time at the sending hospital, which may contribute to improved functional outcome.

Disclosures R. Shaw: None. H. Rho: None. N. Sangha: None. J. Saver: 4; C; BrainQ, Clinical Trial Steering Committee. 6; C; Abbott, Clinical Trial Steering Committee, Medtronic, Clinical Trial Steering Committee, Cerenovus, Clinical Trial Steering Committee, Boehringer-Ingelheim (Prevention Only), Clinical Trial Steering Committee, Phagenesis, Clinical Trial Steering Committee. C. Liang: None.

A JELLYFISH IN THE NET - A CASE OF RECURRENT STROKE CAUSED BY A MOBILE FLOATING CAROTID INTIMAL PLAQUE

Case

A 74-year-old male came to our hospital for a recurrent stroke. Previously he had had a bilateral border zone territorial infarction 3 months before. He was admitted to another hospital and treated with dual antiplatelet agents and statin. However, he had another attack of left hemiparesis, and a diffusion-weighted image revealed newly developed right MCA-ACA internal and external border zone infarction. Computed tomographic angiography showed mild stenosis at the right proximal ICA and left ACA occlusion with collateral flow from the right ACA through the anterior communicating artery. Transthoracic echocardiography, Holter monitoring, and saline agitation transcranial doppler sonography revealed no embolic sources. A carotid doppler sonography (CDS) disclosed moderate stenosis with a mobile floating carotid intimal plaque at the carotid bulb moving up and down with the heartbeat (Jellyfish sign). We considered it was the cause of his recurrent stroke, despite the best medical treatment. We decided to perform carotid stenting to prevent further recurrent stroke.

Result After deploying the distal embolic protection device, we inserted a 7 x 10 x 40 mm seized self-expandable stent at the right carotid artery. During and after the procedure, no adverse events developed. And follow-up CDS showed the stent struts well-positioned against the endothelium and the disappearance of the mobile plaque. He transferred to a rehabilitation hospital with a modified Rankin scale one.

Conclusion Mobile floating carotid intimal plaque is a rare cause of embolic events. While the carotid stenosis is not severe, a meticulous examination of carotid doppler sonography needed to find any embolic source.

Disclosures S. Lee: None. Y. Won: None.

SAFETY AND EFFECTIVENESS OF MECHANICAL THROMBECTOMY FOR BASILAR ARTERY OCCLUSIONS IN PATIENTS WITH NIHSS ≤6

A Kuhn, J Singh, F Massari, A Purcell, Division of Interventional Radiology, Department of Radiology and New England Center for Stroke, University of Massachusetts, Worcester, MA

Introduction/Purpose Ischemic strokes due to basilar artery occlusions are associated with a high risk of permanent disability and even mortality. Indications for mechanical thrombectomy of basilar artery occlusions are not clearly defined and lack evidence from large thrombectomy trials. Intravenous tPA remains the standard of care for these patients but, unfortunately, tPA reperfusion rates are overall insufficient in the setting of basilar artery occlusions. We here evaluate the safety and effectiveness of mechanical thrombectomy for patients with basilar artery occlusion and low NIHSS.

Materials and Methods We retrospectively reviewed our Comprehensive Stroke Center database and identified all patients who underwent mechanical thrombectomy for basilar artery occlusions between June 2017 and December 2021. We then selected those patients with NIHSS ≤6. Successful recanalization was defined as TICI ≥2b and good clinical outcome as an mRS score of ≤2 at 3 months. Patient characteristics and procedural data were also collected.

Results A total of 29 basilar artery thrombectomies were performed at our institution between June 2017 and December 2021. Of those, 12 patients (9 females) presented with an NIHSS of ≤6. Mean age was 65 years (range 44 to 89 years). Median baseline mRS was 0 (range 0–2). NIHSS at presentation ranged from 2–6 with a median of 4. Five patients received IV tPA (41.7%). Vascular access was through the femoral artery in 6 cases, transradial in 4 cases and via the brachial artery in 2 cases. Except for 2 cases in which aspiration only was performed, the mechanical thrombectomy technique of choice was a combination of stent-retriever thrombectomy and aspiration. Mean number of passes performed was 1.4 (range 1–3 passes) with single pass success in 8 cases (66.7%). Final mTICI score was 2c or 3 in all cases with mTICI 3 in 10 cases (83.3%). No intracranial hemorrhage was observed.