11.1%) included sudden asystole (n=1), acute in-stent thrombosis (n=3), minor stroke (n=3), and stent shortening (n=1). All complications were resolved without permanent neurological deficit. Angiographic follow-up (mean, 13.0 months) was achieved in 49 patients and revealed in-stent restenosis in 1 patient (2.0%) and stent malposition by shortening in 2 patients (4.1%). No stent fracture occurred in any of the patients on follow-up angiography. All patients were neurologically stable at clinical follow-up.

Conclusions Endovascular treatment of symptomatic VAOS using the closed-cell, self-expandable Carotid Wallstent is technically feasible and effective in alleviating patient symptoms and for improving vertebrobasilar blood flow.

Disclosures J. Ko: None. T. Lee: None.

E-071 INSTITUTIONAL TREATMENT PRACTICES FOR CENTRAL RETINAL ARTERY OCCLUSION: A RETROSPECTIVE SINGLE-CENTER ANALYSIS PROVIDING INSIGHT TOWARDS MULTI-DISCIPLINARY TREATMENT OF 'EYE STROKE'

K. Lee*, S. Coffman, C. Tschoe, K. Fargen, S. Wolfe. Neurosurgery, Wake Forest School of Medicine, Winston-Salem, NC

Introduction Central retinal artery occlusion (CRAO) is an ophthalmologic emergency that can result in permanent, devastating vision loss. Timing and use of interventions such as ocular digital massage, anterior chamber paracentesis, acetazolamide, topical beta-blockers, and thrombolysis have unclear efficacy and guidelines in the literature, and over 25% of CRAO are associated with cerebral ischemia. In the advent of intra-arterial treatment algorithms for stroke, there may be new opportunities to treat CRAO in an emergent, multidisciplinary approach similar to that of ischemic stroke to improve outcomes. This study examines the institutional practices at Wake Forest Baptist Medical Center (WFBMC) in an effort to establish a formalized approach to treatment of CRAO.

Methods This is a retrospective review including patients who were diagnosed or treated for acute non-arteritic (NA) CRAO from January 2017 to January 2019 at WFBMC. Time to presentation, services consulted for evaluation of patients with CRAO, standard stroke work-up carried out during the admission, treatments implemented specifically for the diagnosis of CRAO, and complications from treatment were recorded. Descriptive statistics were utilized.

Results Of 144 patients who were seen at WFBMC for CRAO during this timeframe, we identified 64 patients who received initial diagnostics and management for acute NA-CRAO. The cohort was 65.6% male, and the average age was 66.4 years. The most frequent comorbidity was hypertension (67.2%), with current or former smoking as the second most frequent comorbidity (62.5%). 18.8% of patients presented within 4 hours of symptoms, 39% presented between 4 and 24 hours, and 42.2% of patients presented greater than 24 hours after symptom onset. Ophthalmology, neurology stroke, and neurosurgery were consulted in 76.6%, 75%, and 10.9% of cases, respectively. Overall workup included CT (32.8%), MRI (70.3%), CTA or MRA (48.4%), visual acuity (82.8%), fundoscopic exam (84.8%), ocular pressures (78.1%), carotid doppler (67.2%), transthoracic echocardiogram (79.7%), CBC (84.4%), lipid panel (70.3%), AIC (68.6%), ESR (64.1%), and CRP (62.5%). 10.9% of patients had finding of acute stroke on MRI, and an additional 3.1% were diagnosed with transient ischemic attack. Ipsilateral internal carotid artery stenosis ≥50% was found in 21.9% of patients. 59.4% of patients did not receive any treatment for CRAO (ocular digital massage, anterior chamber paracentesis, acetazolamide, etc.), and 43.8% of patients did not receive any escalation in home antplatelet or anticoagulation regimen. Patients had a more complete treatment and treatment when they presented within 24 hours of symptom onset.

Conclusions The management of acute CRAO is inconsistent and usually errs on the side of conservative management at our institution. Given the similarities to stroke and the significant number of patients with concomitant stroke risk factors and symptoms, multidisciplinary stroke algorithms should be considered for this disease. At our institution, we will begin a randomized, controlled trial for CRAO ‘eye stroke’ to mirror recent protocols in stroke care that allow for rapid mobilization and multidisciplinary treatment of patients. This will help streamline patient care and ensure that each patient receives all available and indicated therapies for maximum preservation and return of visual acuity.


E-072 EMBOLIZATION OF TRAUMATIC CAROTID-CAVERNOUS FISTULA VIA DIRECT PERCUTANEOUS PUNCTURE OF THE SUPERIOR OPHTHALMIC VEIN: A CASE REPORT

D. Kim*, S. Ha. Neurosurgery, Chosun univ. Hospital, Gwangju Metropolitan City, Korea, Republic of

Endovascular treatment of Carotid-cavernous fistulas (CCFs) can be challenging if typical transvenous routes are inaccessible. We describe a case of a traumatic direct carotid-cavernous fistula in which transvenous embolization via the inferior petrosal sinus (IPS) was failed. An embolization of CCF via direct percutaneous puncture of the superior ophthalmic vein (SOV) was done successfully.

Disclosures D. Kim: None. S. Ha: None.

E-074 CORRELATION OF BASELINE NLR AND CTP IMAGING IN SELECTED PATIENTS WITH LARGE VESSEL OCCLUSION ISCHEMIC STROKE

M. Aly*, R. Abdalla, M. Hurley, A. Shaibani, S. Ansari. Intervention Radiology, Northwestern University, Chicago, IL

Purpose Many pieces of evidence in the literature suggest that Neutrophils-Lymphocytes ratio (NLR) can be used as an inexpensive biomarker to assess the degree of inflammation for multiple diseases including cancer, coronary artery disease, metabolic syndrome, and sepsis. Cerebral infarction leads to an inflammatory response, ischemic tissue release proinflammatory chemokines which activates leukocytes and enhance their trans-endothelial migration to the site of inflammation.
Metanalysis has suggested that baseline NLR is a promising predictor of ischemic stroke clinical outcomes. This study aims to evaluate the relationship between baseline NLR in patients with large vessel occlusion (LVO) and their imaging selection for endovascular treatment (ET).

Materials and Methods We reviewed our prospective stroke intervention database from Nov 2015 to June 2019 for patients that underwent ET for LVO with an admission NLR. Patients were excluded from the study if they received corticosteroids or had any history of infectious/systemic disease prior to the development of stroke symptoms. We studied patient demographics, vascular risk factors, NIHSS on admission, data from imaging (NCCT ASPECT, CTP rCBF<30%, Tmax >6s and mismatch ratio), and 90 days outcome measured by mRS. Statistical analysis was performed using SPSS version 17, univariate analysis was conducted between age, NLR, NIHSS, data from imaging and mRS using a correlation coefficient.

Results Seventy-eight met our inclusion criteria (mean age, 67 ± 19; 39% women, mean NIHSS, 17 ± 6), 95% (n=74) were due to anterior circulation LVO while only 3%(n=4) were due to posterior circulation LVO occlusion. There was a significant positive correlation between NLR and rCBF<30% representing the volume of infarction core (p=0.046), also there was a significant negative correlation between ASPECT score and rCBF<30% (p=0.035). No correlation was observed between NIHSS and ASPECT (p=0.94) or NIHSS and rCBF<30% (p=0.83), however, there was a trend toward significance correlating NIHSS and Tmax>6s representing the volume of ischemic tissue (p=0.09). Predictably, NLR was not correlating with 90-days mRS (p=0.703) as all patients in our cohort underwent ET, nevertheless, there was a significant correlation between age and 90-days mRS (p=0.001).

Conclusions NLR is an inexpensive and readily available biomarker that correlates with CTP predicted core infarction volume in LVO ischemic stroke. However, in CTP selected patients with relatively small core infarct volumes, NLR may not predict 90-day mRS as endovascular treatment salvages ischemic tissue, minimizes final infarct volume, and suggests follow-up NLR may be more valuable predictor of clinical outcome.