occipital lobes. The history of liposuction, the disturbance in consciousness, the petechial rashes on the skin, and the CT/MRI findings prompted a diagnosis of fat embolism. The black signal seen on the CT scan image was considered to be representative of a fat embolism, which had blocked the left internal carotid artery. Large amounts of fat droplets had embolized to the distal arteries and the watershed area was uninvolved. Although aggressive therapeutic medical measures were performed, her condition deteriorated due to a combination of factors, including the development of cerebral herniation, pneumonia, acute renal insufficiency, and hepatic failure. She died of multi organ failure on the 13 day after the liposuction procedure.

Disclosures D. Raza: None.

Abstract E-046 Racial Differences in Time to Blood Pressure Control of Aneurysmal Subarachnoid Hemorrhage Patients: A Single-Institution Study

Background and Purpose Aneurysmal subarachnoid hemorrhage (aSAH) occurs in approximately 30,000 patients annually in the United States. Uncontrolled blood pressure (BP) is a major risk factor for aSAH. Clinical guidelines recommend maintaining BP control until definitive aneurysm securement occurs. It is unknown whether racial differences exist regarding BP control and outcomes in aSAH.

Methods We conducted a retrospective review of adult aSAH cases between 2013–2019 at a single tertiary medical center. Data extracted from the medical record included sex, age, race, insurance status, aneurysm location, aneurysm treatment, initial systolic and diastolic BP, Hunt Hess grade, Modified Fisher score, time to BP control (defined as time in minutes from first BP measurement to the first of three consecutive systolic BP measurements under 140 mmHg), hospital length of stay, and final discharge disposition.

Results 194 patients met inclusion criteria; 140 (72%) White and 54 (28%) Black. Black patients were older than White patients (59.2 ± 3.4 years versus 52.92 ± 6.3 years, p = 0.004). White patients were more likely than Black patients to be privately insured (62.1% versus 33.3%, p < 0.001). Black patients were more likely than White patients to have Medicare (55.6% versus 15.0%, p < 0.001). Compared to White patients, Black patients presented with a higher median systolic (165 mmHg versus 148 mmHg, p = 0.004) and diastolic (93 mmHg versus 84 mmHg, p = 0.002) BP. Black patients had a longer median time to BP control than White patients (200 minutes versus 90 minutes, p = 0.001). Black patients had a shorter median length of stay than White patients (15 days versus 18 days, p < 0.031). There were no significant racial differences present in discharge disposition, complications, or need for further intervention.

Conclusion Black race was associated with higher BP at presentation, longer time to BP control, but shorter length of stay. No racial differences were present in aSAH associated complications or interventions.

Tables to be presented:

Abstract E-046 Table 1 Demographics and presentation of included patients

Abstract E-046 Table 2 Management and Clinical Outcomes


Abstract E-047 Staged Approach to Complex Y-Stenting for Wide-Necked Bifurcation Aneurysms

Purpose The treatment of wide-necked bifurcation aneurysms (WNBA) is evolving rapidly. Complex techniques, such as Y-stent-assisted coiling (Y-SAC), in which coils are deployed over a dual-stent assembly, with one passing through the interstices of the other, are effective but present unique challenges and complications. We describe the results of a staged Y-SAC method for unruptured WNBAs.

Methods We retrospectively reviewed the records of patients harboring WNBAs treated at our institution with staged Y-SAC between 2015 and 2021. Inclusion criteria were adult patients with unruptured intracranial bifurcation aneurysms with wide necks, defined as neck width ≥ 4 mm or a dome-neck ratio ≤ 2. Primary endpoint was periprocedural risk of staged Y-SAC, defined by major complications (ischemia or hemorrhage within 48 hours of the procedure) or minor complications (pharmacologic or other complications requiring intervention). Secondary endpoints were degree of initial and follow-up occlusion, characterized by Raymond-Roy (RR) class, as well as need for retreatment. These outcomes were qualitatively compared with data in extant Y-SAC studies.

Results A total of 21 patients (13 female, mean age 61.1) underwent successful staged Y-SAC for unruptured WNBAs (eight anterior communicating, six middle cerebral, six basal tip, one internal carotid artery terminus). Mean dome-neck ratio was 1.53. Mean interval between stages was 52.1 days. Major complications occurred in one (4.76%) patient who had a non-occlusive thrombus near their stent on postoperative day 2 after trauma. There were no intraoperative or interoperative ruptures or other hemorrhagic complications. Minor complications included two (9.52%) asymptomatic intraoperative thromboses treated effectively with GpIIb/IIIa inhibitors and one (4.76%) intraoperative access site complication requiring vascular consult. Immediately following the second stage, eight (38.1%) cases had complete occlusion, with five (23.8%) neck remnants, and eight (38.1%) aneurysm remnants. Follow-up angiography was available for 15 patients (mean follow-up of 6.01 months) and revealed complete occlusion in 12 (80%), neck remnant in one (6.67%), and aneurysm remnants in two (13.3%). Adequate occlusion (RR1 or RR2) was achieved in 86.7% of cases. Two (9.52%) aneurysms required retreatment over one year after initial
treatment. Compared to recent Y-SAC series, which reported rates of ischemia or hemorrhage from 0% (n = 15) to 16.7% (n = 6), our cohort demonstrates low (1 subject; 4.76%) rates of major complications. Furthermore, that patient presented after trauma postoperatively, which may have played a role in this complication. Operative outcomes are comparable with current literature, which report long-term adequate occlusion ranging from 80% (n = 15) to 100% (n = 18), compared to 86.7% in the present study. Angiographic follow-up is not yet available in three of our patients, and three others were lost to follow-up or died of unrelated causes.

Conclusion In this cohort, we find that staged Y-SAC is safe and effective in the treatment of unruptured WNBAs, demonstrating low rates of major complications and favorable rates of long-term occlusion. Most notably, the absence of any ruptures or hemorrhagic complications demonstrates that a staged approach may increase the feasibility of Y-SAC by providing a more stable construct through which treatment is completed.

Disclosures M. Hindi: None. S. Elmoursi: None. D. Dornbos: None. S. Pahwa: None. L. Sheikhi: None. J. Fraser: None.

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**E-048**  ANTITHROMBOTICS FOR EMERGENT STENTING IN ACUTE STROKE

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Background Prospective studies have indicated that stenting of extracranial internal carotid artery with thrombectomy of intracranial occlusion has better outcome compared to other approaches for treatment of stroke due to tandem occlusion. However, there is dearth of data on use of anti-thrombotics for stents deployed in emergent setting with no prior adequate antiplatelet therapy. Stent occlusion and intracranial hemorrhage are two major competing risks for use of antithrombotic therapy. We prospectively studied use of tirofiban to balance the two risks in patients who required stent deployment for treatment of acute ischemic stroke. Tirofiban is a reversible GPIIb/IIIa receptor antagonist with rapid onset and offset of action which provides for immediate antplatelet activity to prevent stent occlusion that can be reversed relatively quickly in case of hemorrhage or need for hemicraniectomy.

Methods Consecutive patients of acute ischemic stroke treated at University of Iowa Hospital from November 2020 with an extracranial or intracranial stent were enrolled in the study. Tirofiban continuous infusion, without bolus dose at a rate of 0.1mcg/kg/min was started shortly prior to deployment of the stent. Head imaging, preferably MRI was obtained as soon as possible after the procedure. Dual oral antiplatelet therapy was started if there was no evidence of intracranial bleed or large infarct which could require hemicraniectomy. Alternatively, tirofiban was continued until an hour before hemi- craniectomy or end of ‘hemicraniectomy watch’ period. Follow-up evaluation was done in the clinic after 3 months with non-invasive vessel imaging.

Results Twenty patients met the study criteria. Seventeen had extracranial and three had intracranial stent placement. Seven patients had received intravenous thrombolytic therapy with alteplase. Stent occlusion occurred in two out of twenty patients (10%) while symptomatic intracranial hemorrhage occurred in one patient (5%). There were confounding factors in both cases of stent occlusion, chronic carotid occlusion in one and incomplete stent expansion in the other. Intracranial hemorrhage occurred in one patient, 36 hours after the procedure and 30 hours after tirofiban was stopped and oral dual antiplatelet therapy was started. Modified Rankin Scale at three months was available for 15 patients, 6/15 (40%) had score of ≤2 while 9/20 (45%) had score ≤2 at discharge. Two patients died and one pursued hospice care due to causes unrelated to stroke. Intravenous thrombolytic therapy or prior antithrombotic use had no association with stent occlusion. Single patient who had symptomatic intracranial hemorrhage did receive tPA. All three intracranial stents were patent and had no complication. None of the twenty patients had any extracranial hemorrhage.

Conclusion Tirofiban continuous infusion is a safe and possibly effective strategy for emergent stenting in acute ischemic stroke.

Disclosures S. Lahoti: None. K. Limaye: None. C. Zevallas: None. K. Dlouhy: None. M. Hayakawa: None. E. Samaniego: None. D. Hasan: None. S. Ortega: 2; C. Medtronic, Stryker Neurovascular, Microvention. C. Derdeyn: 1; C. Siemens Healthineers. 4; C. Euphrates Vascular, Inc. 6; C. DSMB: Penumbra (MIND), NoNO (ESCAPE NA1 and FRONTIER).

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**E-049**  REDUCED SUPPLY COST FOR MECHANICAL THROMBECTOMY IN LARGE VESSEL OCCLUSIONS WITH A BUNDLING COST PROGRAM FOR INSTRUMENTATION

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Background: During the COVID-19 pandemic, the volume of mechanical thrombectomy (MT) procedures performed at our institution dropped by 45%. We aimed to explore the potential cost savings with a bundled purchasing model.

Methods: A retrospective review of all patients who underwent a mechanical thrombectomy at a single comprehensive stroke center over a 5-month period from 11/1/21 to 3/26/22 was performed. All patients with cost bundling instrumentation were analyzed for cost of the procedure, as well as al carte cost without the bundling. An independent t-test was performed comparing the average cost. A p-value <0.05 was defined as significant.

Results: A total of 26 patients were included in the analysis. The average total cost using a la cart purchasing was $192,619 whereas bundling total cost was $173,338, accounting for a total cost savings of $19,281. The average a la carte cost per patient was significantly greater than the average bundle cost per patient ($7,408 (SD 3474.97) vs $6,667 (SD 3162.09), p = <0.0001). The average cost savings per patient was therefore $742 (SD 386.39, range = $70 - $1575).

Conclusion: Purchasing devices used for stroke using a bundled model could result in significant cost savings to the hospital, potentially minimizing the annual health care costs of stroke while maintaining therapeutic efficacy. Future studies should assess the feasibility and effectiveness of bundling methods for acute ischemic stroke supplies to determine optimal pricing.