within the delivery catheter. The Surpass™ Flow Diverter is preloaded on the delivery catheter and is available in diameters ranging from 3 to 5 mm and lengths of 15 to 50 mm. The SCENT Trial is an international, multi-center, prospective, non-randomized trial comparing the outcomes of Surpass™ Flow Diverter treatment to a historical control. It is designed to evaluate the safety and efficacy of the Surpass™ Flow Diverter in the treatment of large or giant wide neck intracranial aneurysms. Subjects between the ages of 19 to 80 years having a single targeted intracranial aneurysm that is located in the internal carotid artery (ICA) distribution up to the terminus with a neck $\geq$4 mm or no discernible neck and an aneurysm size $\geq$10 mm (including saccular, fusiform, and dissecting aneurysms) are eligible for participation in the study. The primary safety endpoint is the percent of subjects experiencing neurologic death or major ipsilateral stroke through 12 months. The primary effectiveness endpoint is the percent of subjects with 100% occlusion (Raymond Class 1) without clinically significant stenosis (defined as ≤50% stenosis) of the parent artery and any subsequent treatment of the target aneurysm at 12 months.

Results and Conclusion The enrollment of 180 subjects in the SCENT trial was completed on November 30, 2015. Up to 30 sites were targeted for participation in the study. All 12 month primary-endpoint follow-up visits are expected to be completed in November 2016.

Disclosures P. Kan: 2; C; Stryker Neurovascular, Medtronic. **P. Meyers:** None. **R. Hanel:** 2; C; Stryker Neurovascular, Covidien, Codman Neuro, MicroVention. 4; C; Blockade.

E-023 PATIENT OUTCOMES, ANEURYSM OCCLUSION, AND CEREBRAL INFARCTION FOLLOWING ENDOVASCULAR TREATMENT OF DISSECTING VERTEBRAL ARTERY ANEURYSMS

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Introduction Subarachnoid hemorrhage (SAH) secondary to rupture of an intradural dissecting vertebral artery aneurysm (DVAA) results in significant morbidity and mortality. Prior studies suggest favorable outcomes following endovascular treatment of ruptured DVAA by parent vessel occlusion or stent-assisted coil embolization, but post-procedural cerebral infarction related to endovascular treatment is less well characterized. We determined patient outcomes and cerebral infarction following endovascular treatment of ruptured DVAA.

Materials and methods We retrospectively reviewed all consecutively patients presenting to our neurovascular referral center over a 10 year period with with SAH due to a ruptured DVAA. Patient demographic, treatment, and outcome data were determined from the medical record. DSA, CT, and MRI studies were reviewed for DVAA characteristics and cerebral infarction.

Results Ruptured DVAA were identified in 30 patients with an average age of 56 years (range 35–86 years). DVAA affected the right vertebral artery in 20 patients (67%; $p = 0.2$), the non-dominant vertebral artery in 18 patients (60%; $p = 0.4$). Parent vessel occlusion was performed in 25 patients, stent-assisted coiling in 4 patients, and flow diversion in 1 patient. Aneurysm occlusion was achieved in 27 patients (90%). Symptomatic vasospasm requiring endovascular treatment occurred in 12 patients (35%). Cerebral infarction occurred in 9 patients (30%) following endovascular treatment, which were secondary to vasospasm in 5 patients (56%), parent vessel occlusion in 2 patients (22%), and a combination of vasospasm and parent vessel occlusion in 2 patients (22%). No other complications were identified. 8 patients (27%) had a good clinical outcome (mRS 2) at discharge, which increased to 18 patients (60%) at 3 months of follow-up. 5 patients (17%) died as a result of their ruptured DVAA. Presenting Hunt and Hess scale greater than 3 ($p = 0.003$) was associated with a poor clinical outcome (mRS > 2 or death). Patient sex, age, hypertension, hyperlipidemia, diabetes, coronary artery disease, smoking, illicit drug use, alcohol abuse, a family history of aneurysms, presenting Fisher grade, and the development of vasospasm requiring endovascular treatment did not correlate with clinical outcome.

Conclusions Endovascular DVVA treatment results in a high rate of aneurysm occlusion and good clinical outcome in a majority of patients. The rate of cerebral infarction related to endovascular parent vessel occlusion is high. Further studies should determine if ruptured DVVA treatment by flow diversion results in acceptable rates of aneurysm occlusion and lower rates of post-treatment cerebral infarction compared to endovascular parent vessel occlusion.

Disclosures J. Heit: None. **R. Dodd:** None. **H. Do:** None. **G. Steinberg:** None. **S. Chang:** None. **M. Marks:** None.

E-024 PRIMARY INTRACRANIAL STENTING FOR REFRACTORY REOCCLUSION DURING STENT-BASED MECHANICAL THROMBECTOMY FOR ACUTE ISCHEMIC STROKE INTERVENTION

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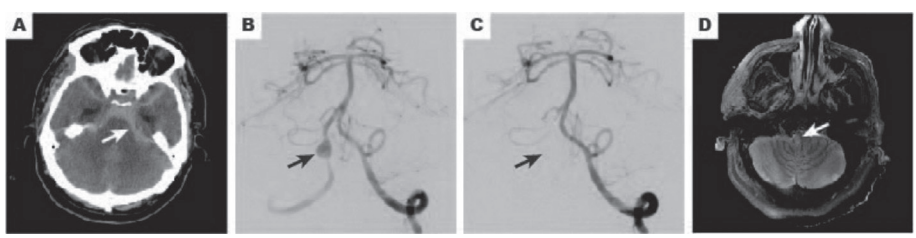
Purpose To evaluate clinical and radiologic outcomes of primary intracranial stenting for refractory re-occlusion during stent-based mechanical thrombectomy for acute ischemic stroke intervention.



Abstract E-023 Figure 1

Method From January 2011 through September 2015, A retrospective study was performed in 27 patients who had hyperacute ischemic stroke and were treated by primary intracranial stenting for refractory re-occlusion during stent-based mechanical thrombectomy. We studied radiologic appearance, clinical presentation and follow up outcomes.
Result Of the 27 patients, 11 patients (40%) showed radiologic and clinical improvement, 5 patients (18%) showed clinical improvement with in-stent stenosis, 6 patients (22%) had complication with hemorrhagic transformation and 4 patients (14%) failed recanalization or severe stenosis. In all cases, we use Solitaire FR stent. 6 patients (22%) were TICI grade III, 10 patients (37%) were TICI grade IIb, 4 patients (14%) were TICI grade IIa, and 4 patients (14%) were TICI grade I. After 3 months, 15 patients (55%) were below mRS 3 points and after 6 month, 18 patients (67%) were below mRS 3 points.
Conclusions These results indicate that primary intracranial stenting for refractory re-occlusion during stent-based mechanical thrombectomy treatment in acute ischemic stroke is effective technique. Further studies are needed to evaluate long-term occlusion and in-stent stenosis.
Disclosures S. Sheen: None. **J. Shin:** None.

E-025 FIRST REPORTED CASE OF MECHANICAL THROMBECTOMY FOR ACUTE ISCHEMIC STROKE IN AN INDIVIDUAL WITH A TOTAL ARTIFICIAL HEART

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Background With the results of recent thrombectomy trials, endovascular therapy (EVT) is standard of care in appropriately selected patients with acute ischemic stroke (AIS). We report the first case of mechanical thrombectomy for a patient supported by a total artificial heart (TAH) with AIS.
Clinical Presentation A 37 year old male patient with ischemic cardiomyopathy was found to have right gaze preference, left facial droop, and global aphasia 9 days following implantation of a TAH. Prior to ictus, antithrombotic regimen included daily aspirin and heparin infusion at therapeutic levels. Acute imaging revealed a 6 mm left M2 thrombus with associated perfusion mismatch seen in the left MCA territory along with a smaller matched perfusion defect seen in the right MCA territory.
Intervention Following confirmation of lesion amenable to mechanical thrombectomy, patient underwent successful TICI 3 revascularization of the left MCA territory with a Solitaire stent retriever. Repeat perfusion imaging revealed resolved left MCA territory mismatch with persistent right MCA matched defect. His speech improved to an expressive aphasia following revascularization.
Conclusion EVT has been proven to be safe and efficacious for AIS. Prior reports have demonstrated benefit for patients with concurrent mechanical circulatory support devices; however, our report is the first case demonstrating efficacy with a TAH device. Presence of mechanical circulatory support devices should not exclude EVT in individuals with AIS.
Disclosures M. Nezhad: None. **P. Eboli:** None. **M. Austin:** None. **K. Schlick:** None. **M. Alexander:** None.

E-026 DIAGNOSIS AND MANAGEMENT OF THORACIC AND SHOULDER ARTERIOVENOUS MALFORMATIONS

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Purpose To determine the efficacy of Endovascular Repair of Thoracic and Shoulder Arteriovenous Malformations (AVMs). Previous reports have documented the futility of nBCA and amputation in treating these lesions in this specific anatomy.
Materials and methods Twelve patients (8 female, 4 male) presented for repair of shoulder and thoracic AVMs. Three patients had extension of AVM to the supraclavicular and axillary areas. Two patients had multiple AVMs. Seven patients had previous failed therapies (embo: PVA/coils/gelfoam; surgeries: excisions/arterial bypass). All patients underwent ethanol endovascular AVM repair; four patients had additional coil embolizations (132 treatments). Patient age range 18–76 years; mean age 36.
Results Eleven patients are cured at long-term arteriographic follow-up (follow-up 22–192 months; mean follow-up: 42 months). One patient with bilateral shoulder AVM and multiple other AVMs therapy is on-going. Complications include two patients with minor superficial blisters, one patient with transient left radial nerve injury with complete recovery and one patient with clot embolus to hand, Rx with urokinase w/ distal 3rd phalanx removed. Thus, major complications were 2/132 procedures, one being transient.
Conclusions A report of shoulder AVM repair in JVIR documented failure of nBCA approach even coupled with quadrant amputation whereby recurrence was universal. These authors stated that shoulder AVMs were not possible to treat. This report documents that cure of these difficult lesions is possible with ethanol endovascular approaches and direct puncture approaches. No other publications in world literature documents cure of AVMs in this anatomy.

Long-term cures are noted with the use of ethanol, and ethanol and coils to successfully treat these complex, problematic lesions. A low major complication rate is noted. This patient series finally documents a curative procedure for this daunting lesion.
Disclosures W. Yakes: None.

E-027 MECHANICAL THROMBECTOMY FOR ACUTE ISCHEMIC STROKE IN POST-SURGICAL PATIENTS

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Introduction Ischemic strokes in the post-surgical period may negatively impact clinical outcome. Major surgery within the previous 14 days is a relative contraindication to intravenous-tPA administration. Mechanical thrombectomy may thus become a valid treatment option. We present our experience in a series of patients who presented with a clinical stroke syndrome in the post-surgical period who underwent emergent angiography with intent to treat.
Methods This is a retrospective review of patients who were treated from January 2012 to March 2015 in our institution.