Patients who had emergent angiography after presenting with clinical stroke during the post-surgical period were included. Type of surgery, clinical characteristics, imaging studies, treatment variables, and discharge modified Rankin scores were collected.

Results 15 patients had emergent angiography in the post-surgical period. The mean age is 68.87 years. 87% (13/15) had cardiovascular surgery, 8 (62%) of which were valvular repairs. 57% (8/14) presented in the immediate post-surgical period. The mean NIHSS was 18. Mean symptom duration from time last known well was 256 minutes. 10/11 (91%) had perfusion deficits on CTP.

60% (9/15) had proximal vessel occlusion while 33% (5/15) had distal occlusions, and 1 had no occlusion. Of the 9 patients with proximal vessel occlusions, 7 underwent thrombectomy with the Solitaire device achieving a 57% (4/7) TICI 2 b/3 recanalization rate. The mean mRS for all patients in the series is 3.79. Patients with TICI 2 b/3 recanalization did significantly better at discharge than those who did not, mean mRS of 1.67 vs. 5, $p = 0.019$.

Conclusion In our experience, emergent angiography among post-surgical stroke patients showed proximal vessel occlusion in more than half of patients, making them potential candidates for mechanical thrombectomy. Those who achieved TICI 2 b/3 recanalization performed clinically better than those who did not. This may indicate the potential benefit of mechanical thrombectomy among post-surgical stroke patients. The overall lower recanalization rates in this cohort may reflect atypical clot characteristics encountered in post-surgical patients and would be an interesting avenue for further investigation.

Disclosures M. Litao: None. H. Bhamra: None. K. DeSousa: None. E. Raz: None. E. Nossek: None. A. Favate: None. M. Shapiro: 2; C; Covidien. T. Becske: 2; C; Covidien. P. Nelson: 2; C; Covidien.

E-028 MANAGEMENT OF TONGUE VENOUS AND LYMPHATIC MALFORMATIONS

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Purpose To determine the efficacy of ethanol embolization in management of tongue venous and lymphatic malformations.

Materials and methods Thirty-nine patients (22 females, 17 males; mean age: 38 years) presented with tongue low-flow malformations. Forty-seven patients had undergone 61 failed previous procedures (embo, laser, surgery, steroid injection, alpha-interferon, radiation). All patients had baseline arteriograms and MRs. All patients underwent direct puncture ethanol endovascular therapy.

Results Of 39 patients with venous and lymphatic malformations, 32 patients had dramatic reduction and 7 patients' therapy is on-going with concurrent reductions (mean f/up: 60 months). One patient with AVM required additional surgery and 1 patient with mixed veno-lymphatic malformation required surgical debulking of excess tissues. Minor complications such as tongue blisters (9 instances) healed spontaneously; 3 tongue focal necrosis injuries healed spontaneously; 3 infections responded to antibiotic treatment; 1 focal tongue hemi numbness resolved.

Conclusion Ethanol embolotherapy is a primary and consistent form of therapy to eradicate low-flow vascular malformations of the tongue permanently at long-term follow-up. Rarely is concurrent surgery required. Ethanol sclerotherapy is a curative treatment in which recurrences do not occur and permanent ablations are the rule. Complications that occur are minor and rare.

Disclosures W. Yakes: None.

E-029 MECHANICAL THROMBECTOMY IN PEDIATRIC ACUTE ISCHEMIC STROKE: CLINICAL OUTCOMES AND LITERATURE REVIEW

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There is limited data on outcomes of mechanical thrombectomy for pediatric stroke using modern devices. In this study, we report two cases of pediatric acute ischemic stroke treated with mechanical thrombectomy, both with good angiographic result (TICI 3) and clinical outcome (no neurological deficits at 90 days). In addition, we conducted a literature review of all previously reported cases describing the use of modern thrombectomy devices. Including our two cases, the aggregate rate of partial or complete vessel recanalization was 100% (22/22), and the aggregate rate of favorable clinical outcome was 91% (20/22). This preliminary evidence suggests that mechanical thrombectomy with modern devices may be a safe and effective treatment option in pediatric patients with acute ischemic stroke.

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E-030 TRANSVENOUS MICROGUIDEWIRE LOOPING TECHNIQUE FOR BREACH OF IPSILATERAL INFERIOR PETROSAL SINUS OCCLUSIONS EN ROUTE TO CAVERNOUS SINUS DURAL ARTERIOVENOUS FISTULAS

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Purpose Transarterial access to dural arteriovenous fistulas (dAVFs) has been popularized by device improvements and novel embolic materials. However, this approach is limited in the cavernous sinus (CS) due to related complications and low cure rates. Although a transvenous approach, via ipsilateral inferior petrosal sinus (IPS), may be more suitable for CS-dAVFs, microcatheter delivery is occasionally impeded by ipsilateral IPS occlusion. Described herein is a novel microguidewire looping method to breach such occlusions, thus enabling access to CS lesions.

Methods A microcatheter is initially advanced into IPS orifice, and a microguidewire is passed into occluded IPS. Looping is easily achieved through the resistance met. With greater support of the guiding catheter, the microguidewire (still looped) is then advanced into CS. When nearing CS, the

Abstract E-029 Figure 1 Teenage boy status post gunshot wound to left face. (A) Gas in the carotid space (solid arrow) and non-opacification of the right internal carotid artery on neck CTA. (B) Pre-treatment angiogram demonstrates occlusion of the inferior division of the right MCA (dashed arrow). (C, D) Post-thrombectomy angiogram demonstrates TIC1 3 flow.

microcatheter is further reinforced, and it is navigated along the microguidewire into CS.

Results This technique was applied in 10 instances of CS-dAVF with ipsilateral IPS occlusion, enabling ipsilateral access to CS. In 8 cases (80%), microdevice advancement was successful, culminating in effective transvenous coil embolization. Clinical and radiologic outcomes in all patients were excellent, with no delayed post-procedural cranial palsies.

Conclusion This microguidewire looping technique enables safe and effective entry into CS during transvenous coil embolization of CS-dAVFs with ipsilateral IPS occlusion.

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E-031 SUPERSELECTIVE INTRA-ARTERIAL CHEMOTHERAPY INFUSION IN AN 8 WEEK-OLD INFANT

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Introduction Intra-arterial chemotherapy for retinoblastoma has become standard as a therapeutic intervention to facilitate globe salvage in this aggressive malignancy. However, transfemoral endovascular catheterization of the ophthalmic artery is typically reserved for infants aged 3 months or older due to size of the patient and vascular anatomy. Here, the authors report a successful case of transfemoral intra-arterial chemotherapy delivery performed in an infant under 8 weeks of age.

Case Advanced Group E retinoblastoma was diagnosed in an otherwise healthy 8 week-old infant weighing 4.1 kg and presenting with leukocoria. A microvascular sheath (4 F, 1.3 mm outer diameter) was placed in the right common femoral

artery under ultrasound guidance. A 0.014" microcatheter was inserted directly through into the sheath without use of a guide catheter and navigated over a shaped 0.008" microwire under fluoroscopy into the ostium of the right ophthalmic artery. Melphalan 1.9 mg, Topotecan 0.3 mg, and Carboplatin 30 mg were infused through the microcatheter.

Results The procedure was well tolerated and the patient was placed on weight-based lovenox for non-occlusive common femoral artery spasm diagnosed after the procedure by ultrasound. Follow-up examination under anesthesia showed good response to chemotherapy and the patient is scheduled for another session.

Conclusion The authors report successful intra-arterial delivery of chemotherapy for advanced retinoblastoma via a transfemoral approach in a small, young infant. To our knowledge, this is the youngest and smallest infant reported to have successfully undergone this procedure. While typically reserved

Abstract E-031 Figure 1 A) Catheterization of the internal carotid artery by navigation of the marathon 0.014" microcatheter over a shaped Mirage 0.008" microwire (white arrow). B) Ophthalmic artery injection prior to chemotherapy infusion through the Marathon microcatheter.