Abstract E-025 Table 1

	Tandem lesion (N=55)
Baseline characteristics	
Age, years (mean (SD))	67.8 (10.4)
Female	36.4%
Medical history	
Atherosclerosis	14.5%
Atrial fibrillation	18.2%
Diabetes	29.1%
Hypertension	67.3%
Time from onset to hospital admission, hrs (median [IQR])	2.7 [1.6–5.9]
ASPECTS (median [IQR])	7 [6–9]
NIHSS (median [IQR])	15 [9–20]
IV tPA pre-procedure	61.8%
Procedural metrics	
Degree of stenosis in proximal (tandem) lesion, % (median [IQR])	99 [78–100]
First line of treatment in proximal (tandem) lesion	
Angioplasty only	34.5%
Aspiration only	25.5%
Stent	21.8%
Additional treatment in proximal (tandem) lesion	
Balloon angioplasty	14.5%
Stent	14.5%
First line of treatment in intracranial vessel	
Direct aspiration alone	67.3%
Direct aspiration with 3D Revascularization Device	32.7%
Number of total passes in all locations	
1	43.6%
2	14.5%
3	20.0%
4+	21.8%
Time from arterial puncture to mTICI 2b-3 else final angiogram, min (median [IQR])	33.5[22–67]
Primary endpoints	
mTICI 2b-3 post-procedure	89.1%
mRS 0–2 at 90 days	63.5%
All-cause mortality at 90 days	7.3%
Secondary endpoints	
Device-related SAEs, ≤ 24 hrs	1.8%
Device-related SAEs, overall	3.6%
Procedure-related SAEs, ≤ 24 hrs	9.1%
Procedure-related SAEs, overall	14.5%
ENT at end of procedure	5.5%
Symptomatic ICH at 24 hrs	7.3%
Vessel perforation	1.8%
Vessel dissection	5.5%

E-026 UTILIZATION OF A LARGE-BORE 088 INTRACRANIAL ACCESS CATHETER FOR COMPLEX NEUROSURGERY: EXPERIENCE WITH THE TRACSTAR LDP™ IN 127 CONSECUTIVE CASES

¹J Campos*, ¹Z Hsu, ²D Zarrin, ¹K Golshani, ³N Beaty, ⁴M Bender, ²G Colby, ⁵L Lin, ⁵A Coon. ¹Department of Neurological Surgery, University of California, Irvine, Orange, CA; ²Department of Neurosurgery, University of California, Los Angeles, Los Angeles, CA; ³Department of Neurosurgery, Tallahassee Neurological Clinic, Tallahassee, FL; ⁴Department of Neurosurgery, University of Rochester Medical Center, Rochester, NY; ⁵Department of Neurosurgery, Carondelet Neurological Institute, St. Joseph's Hospital, Tucson, AZ

10.1136/neurintsurg-2021-SNIS.122

Background The delivery of complex neuroendovascular devices requires a robust proximal access platform. This demand has previously been met with a 6Fr long-sheath (8Fr guide) that is placed in the proximal ICA (high cervical) or vertebral artery (V1/2) segments. We share our experience with the first 088 8Fr guide catheter designed specifically for direct intracranial access.

Methods We retrospectively reviewed a prospectively-maintained IRB-approved institutional database of the senior authors to identify all cases where the TracStar LDP (Imperative Care, Campbell, CA) was utilized. Case details were recorded including patient demographics, case type, and distal location achieved with navigation of the guide catheter. Technical success was defined as safe placement of the guide catheter to at least the petrous (anterior circulation) or vertebral artery (V3) segments (posterior circulation) or the transverse sinus for venous stenting procedures.

Results Over the 14-month study period, 127 femoral access cases were identified where the TracStar LDP guide catheter was utilized for aneurysm treatment (80% of cases, 102/127), intracranial angioplasty/stenting (13% of cases, 17/127), venous sinus stenting (3% of cases, 4/127), and other pathologies (3% of cases, 4/127). All cases utilized a direct select catheter technique for placement (no exchange). Posterior circulation placement occurred in 14% of cases (18/127). Technical success was achieved in 97% of cases (123/127). Of the 4 cases with technical failure, 75% (3/4) were in the posterior circulation and were attributed to tortuous proximal subclavian access or a small caliber vertebral origin. No symptomatic or flow-restricting vessel dissections occurred in any of the cases.

Conclusion The TracStar LDP is a safe and effective means for establishing direct 088 intracranial access. This can be achieved in a wide range of cases with extremely high rates of technical success.

Disclosures J. Campos: None. Z. Hsu: None. D. Zarrin: None. K. Golshani: None. N. Beaty: 2; C; Medtronic Neurovascular, Stryker Neurovascular. M. Bender: None. G. Colby: 2; C; Medtronic Neurovascular, MicroVention-Terumo, Stryker Neurovascular. L. Lin: 2; C; Medtronic Neurovascular, MicroVention-Terumo, Stryker Neurovascular. A. Coon: 2; C; Avail MedSystems, Imperative Care, InNeuroCo, Medtronic Neurovascular, MicroVention-Terumo, Q'apel, Rapid Medical, Stryker Neurovascular.

E-027 TRANS-FEMORAL 5FR DIAGNOSTIC CATHETER ANGIOGRAPHY FROM A 4FR ACCESS USING A 5/4 SLENDER RADIAL SHEATH: EXPERIENCE IN 50 CONSECUTIVE CASES

¹J Campos*, ¹Z Hsu, ²D Zarrin, ¹K Golshani, ³N Beaty, ⁴M Bender, ²G Colby, ⁵L Lin, ⁵A Coon. ¹Department of Neurological Surgery, University of California, Irvine, Orange, CA; ²Department of Neurosurgery, University of California, Los Angeles, Los Angeles, CA; ³Department of Neurosurgery, Tallahassee Neurological Clinic, Tallahassee, FL; ⁴Department of Neurosurgery, University of Rochester Medical Center, Rochester, NY; ⁵Department of Neurosurgery, Carondelet Neurological Institute, St. Joseph's Hospital, Tucson, AZ

10.1136/neurintsurg-2021-SNIS.123

Background Femoral access has long been the standard for diagnostic angiography but recently radial access techniques have gained popularity due to their perceived enhanced safety. The slender 5/4 radial sheath (5/4RS) (Terumo, Japan) is the commonly used sheath for radial access that allows the use of

5 Fr diagnostic catheters with the arteriotomy of a traditional 4Fr sheath. This is achieved by decreasing the wall thickness of the sheath thereby making it much softer and more likely to kink. We report our experience using this for femoral angiography.

Methods We retrospectively reviewed a prospectively-maintained IRB-approved institutional database of the senior authors to identify all cases where the 5/4RS was utilized. Case details were recorded including types of catheters used, incidence of kinking, closure technique, and length of lying flat (LOF). Technical success was defined as femoral access that allowed catheterization of all desired vessels with a 5Fr diagnostic catheter.

Results Over the study period, 50 consecutive femoral access diagnostic angiography cases were identified where the 5/4RS was utilized. A 5Fr JB1 glide catheter (Terumo) was utilized in all 50 cases and a SIM2 (Terumo) was utilized in 12 (24%). Kinking of the 5/4RS occurred in 5 (10%) patients, which was managed by restoring the lumen with the 5Fr diagnostic catheter, did not preclude technical success. Each of the incidents of kinking occurred in patients with BMI > 30. Exovascular non-dilating groin closure (Mynx, Cardinal) was performed in 32 (64%) cases and manual compression in 18 (36%). All patients were discharged from recovery with 4 hours of total flat time with no symptomatic groin hematomas.

Conclusion The safety of trans-femoral cerebral angiography can be enhanced using a 4Fr groin access with a radial 5/4 slender sheath with the known benefits of utilizing 5Fr diagnostic catheters.

Disclosures J. Campos: None. Z. Hsu: None. D. Zarrin: None. K. Golshani: None. N. Beaty: 2; C; Medtronic Neurovascular, Stryker Neurovascular. M. Bender: None. G. Colby: 2; C; Medtronic Neurovascular, MicroVention-Terumo, Stryker Neurovascular. L. Lin: 2; C; Medtronic Neurovascular, MicroVention-Terumo, Stryker Neurovascular. A. Coon: 2; C; Avail MedSystems, Imperative Care, InNeuroCo, Medtronic Neurovascular, MicroVention-Terumo, Q'apel, Rapid Medical, Stryker Neurovascular.

E-028 IMMEDIATE PROCEDURAL OUTCOMES OF HIGH MESH-DENSITY FLOW DIVERTER PLACEMENT IN THE UPPER BASILAR ARTERY/BASILAR APEX FOR THE TREATMENT OF CEREBRAL ANEURYSMS: EXPERIENCE WITH 15 CONSECUTIVE SURPASS™ FLOW DIVERSION CASES

¹J Campos*, ²Z Hsu, ³D Zarrin, ⁴K Golshani, ⁵N Beaty, ⁶M Bender, ⁷G Colby, ⁸L Lin, ⁹A Coon. ¹Department of Neurological Surgery, University of California, Irvine, Orange, CA; ²Department of Neurosurgery, University of California, Los Angeles, Los Angeles, CA; ³Department of Neurosurgery, Tallahassee Neurological Clinic, Tallahassee, FL; ⁴Department of Neurosurgery, University of Rochester Medical Center, Rochester, NY; ⁵Department of Neurosurgery, Carondelet Neurological Institute, St. Joseph's Hospital, Tucson, AZ

10.1136/neurintsurg-2021-SNIS.124

Background Recent studies have demonstrated acceptable safety and efficacy of posterior circulation flow diversion for cerebral aneurysms. However, these studies have overwhelmingly included V4 segment and proximal basilar aneurysms (range 70–90%) and analyzed 48-wire devices (Pipeline, Silk, etc.) that have lower mesh densities. The Surpass flow diverter (Fremont, CA) with its 64, 72, and 96-strand designs is a high-mesh density device that is known for its increased flow diversion and perforator preservation properties. We present

here the first known dedicated series of upper basilar and basilar apex flow diverter cases using the Surpass device.

Methods We retrospectively reviewed a prospectively-maintained IRB-approved institutional database of the senior authors to identify all cases where a Surpass™ flow diverter (Streamline or Evolve) was implanted in the upper basilar or basilar apex. Case details were recorded including patient demographics, aneurysm type, device used, and periprocedural events and complications. Technical success was defined as successful implantation of the device without intraprocedural device removal.

Results Over the 20-month study period, 15 cases of Surpass flow diversion (9 (60%) Evolve, 6 (40%) Streamline) cases were performed where a device was placed in the upper basilar artery/basilar apex with the basilar apex being crossed in 11 cases. The aneurysms treated included 5 (33%) basilar apex, 5 (33%) superior cerebellar basilar, and 5 (33%) basilar trunk aneurysms. Dual antiplatelet therapy was established with ticagrelor 90 mg BID and aspirin 81 mg QD in each patient. Intraprocedural tirofiban bolus (1/2 cardiac dose) and subsequent drip was employed in 11 (73%) of cases regardless. Technical success was achieved in 100% of cases and there were no instances of in-stent platelet aggregation. No major strokes were observed in the first 30 days after each case, and all patients were discharged at their MRS baseline.

Conclusion The treatment of upper basilar and basilar apex aneurysms with the high mesh-density Surpass can be safely performed. Further studies are needed to evaluate occlusion rates and efficacy as well as the applicability of these results to lower mesh-density 48-wire implants.

Disclosures J. Campos: None. Z. Hsu: None. D. Zarrin: None. K. Golshani: None. N. Beaty: 2; C; Medtronic Neurovascular, Stryker Neurovascular. M. Bender: None. G. Colby: 2; C; Stryker Neurovascular. 6; C; Proctor for Stryker Neurovascular, MicroVention-Terumo, and Medtronic Neurovascular. L. Lin: 2; C; Medtronic Neurovascular, Stryker Neurovascular, MicroVention-Terumo. 6; C; Proctor for Medtronic Neurovascular, Stryker Neurovascular, MicroVention-Terumo. A. Coon: 2; C; Avail MedSystems, Imperative Care, InNeuroCo, Medtronic Neurovascular, MicroVention-Terumo, Q'apel, Rapid Medical, Stryker Neurovascular.

E-029 RESCUE INTRACRANIAL ANGIOPLASTY WITH OR WITHOUT STENTING IN ACUTE ISCHEMIC STROKE

¹K Khatibi*, ²A Mowla, ³H Saber, ⁴L Ponce Mejia, ⁵N Kaneko, ⁶G Duckwiler, ⁷S Tateshima. ¹Radiology, UCLA, Los Angeles, CA; ²Neurosurgery, USC, Los Angeles, CA

10.1136/neurintsurg-2021-SNIS.125

Introduction The appropriate management of acute ischemic strokes secondary to hemodynamic intracranial atherosclerotic disease refractory to the conventional mechanical thrombectomy remains unclear. We aimed to investigate the clinical outcome of the patients who underwent rescue intracranial angioplasty with or without stenting in the setting of acute ischemic stroke at our institution.

Method This is a retrospective single-arm observational study to evaluate the effect of acute rescue angioplasty with or without stenting on clinical symptom burden and functional outcome. We included all patients that underwent such rescue intervention within 7 days of presenting with acute ischemic stroke with large vessel occlusion between the years of 2017