Methods This is an observational retrospective cohort study. Patients who underwent EVT for LVO from January 01, 2018 to December 31, 2018 at UNMH were included. Data was collected on secured Redcap™ database. Patients were categorized into direct admission (DA) vs transfer groups (TG). Patients who were not candidates for EVT were excluded.

Results A total of 53 patients underwent EVT. Seventeen patients were directly admitted through ED while 36 were transferred from outside hospitals. Age, gender, ethnicity and risk factor profile are reported in table 1. The two groups had similar NIHSS and GCS on presentation. The median time of arrival of patients to UNM, from last known well,

was 211 minutes in DA and 321 minutes in TG ($p=0.03$). Median UNM arrival to groin puncture time was 121 minutes in DA and 66 minutes in TG ($p=0.04$). Median procedural time for recanalization was 41 minutes for DA and 28 minutes for TG. One patient had unsuccessful thrombectomy (TICI score of 0).

Although no statistical significance was noted, mean mRS at 3 months was 3 in each group. The 3-month mortality was similar in the two groups (DA=23.5% vs TG=25%).

Conclusion To the best of our knowledge, this is the first study reporting EVT data reflecting experiences from an academic program of an underserved state after the expansion of EVT time-window. This study showed no statistical difference in the outcomes of patients admitted directly through ED versus patients who were transferred from outside hospitals for EVT. Larger scale studies are needed to corroborate this data.

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Abstract E-117 Table 1 Demographics and comorbidities of patients in two groups

	Direct Patients (N=17)	Transfer Patients (N=36)
Mean Age (standard deviation)	66 (± 13.5)	71 (± 11.6)
Gender	8 (47.0%)	15 (41.7%)
- Female	9 (52.9%)	21 (58.3%)
- Male		
Ethnicity	7 (41.2%)	19 (52.8%)
- Caucasian	2 (11.8%)	1 (2.8%)
- African	7 (41.2%)	11 (30.6%)
- Hispanic	1 (5.9%)	1 (2.8%)
- Asian	0 (0%)	1 (2.7%)
- Native American	0 (0%)	3 (8.3%)
- Unknown		
Medical History	9 (52.9%)	24 (66.7%)
- HTN	5 (29.4%)	10 (27.7%)
- HLD	0 (0%)	5 (13.9%)
- CHF	2 (11.8%)	10 (27.7%)
- CAD	6 (35.3%)	12 (33.3%)
- DM	3 (17.7%)	16 (44.4%)
- AF	2 (11.8%)	4 (11.1%)
- Previous IS	0 (0%)	0 (0%)
- Previous HS	0 (0%)	12 (33.3%)
- Tobacco		

Abstract E-117 Table 2 Baseline characteristics, timings and outcomes in patients undergoing endovascular treatment

	Direct Patients (N=17)	Transfer Patients (N=36)	p-value
Clinical baseline	18	16	0.9
- Mean NIHSS	13	14	0.02
- Mean GCS	0	0	
- Mean Pre-stroke mRS	6	16	
- Treatment with t-PA			
Timing	211	321	0.03
- Median LKW – UNM arrival (min)	408.5	373.5	0.3
- Median LKW – Groin puncture (min)	471	410	0.3
- Median LKW- Reperfusion time (min)	41	28	0.2
- Median groin to reperfusion time (min)			
Outcomes	3	3	0.78
- Mean mRS at 3 months	9	6	0.45
- Mean NIHSS at discharge	3 (17.7%)	10 (27.8%)	
- Hemorrhagic transformation	4 (23.5%)	9 (25%)	
- Mortality			

E-118 MECHANICAL THROMBECTOMY IN DISTAL VESSELS: REVASCULARIZATION RATES, COMPLICATIONS AND FUNCTIONAL OUTCOME

A Sweid*, J Head, S Tjoumakaris, V Xu, K Shivashankar, T Alexander, M Gooch, N Herial, R Rosenwasser, P Jabbour. *Neurosurgery, Thomas Jefferson University, Philadelphia, PA*

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Background and importance Pivotal trials have shown the tremendous efficacy of mechanical thrombectomy in proximal occlusions (PO). However distal occlusions (DO) involving M2 and beyond, distal ACA (A2) and posterior cerebral arteries were not represented. The thoughts are that distal vessels supply a smaller brain area, however, with significant symptoms paired with accessible occlusions, the concept may need to be revisited. In this study, we investigated the efficacy and safety of distal circulation mechanical thrombectomies compared to proximal circulation mechanical thrombectomies.

Methods A retrospective review of patients presenting with distal circulation acute ischemic stroke (AIS) who underwent mechanical thrombectomy at a tertiary referral center between 2010 and 2018.

Results Out of 453 patients who underwent mechanical thrombectomy for AIS, 73 patients had a DO (average age 72 years, 59% female). The mean NIHSS upon admission was 12 (95% CI: 11–14). The mean procedure time was 45 minutes (95% CI: 38–52) and mean time to revascularization, from symptom onset to finishing the thrombectomy procedure, was 522 minutes (95% CI: 438–5607). 45% (n=34) of subjects received tPA. Vessels involved included M2 (89%, n=68), A2 (3%, n=2), PCA (3%, n=2), and M3/4 (5%, n=4). A stent-retriever alone was used in 11% of the cases (n=8), aspiration alone in 8% (n=6), and both stent-retriever and aspiration in 72% (n=55), with failed attempts in 9% (n=7) of cases. Most procedures required one pass to recanalize the vessel (55%, n=42). TICI $\geq 2b$ was achieved in 88% (n=67) of the subjects. Mean length of stay was eight days (95% CI: 6–10). Mortality was noted in 8% (n=6) of patients and independent functional outcome of mRS ≤ 2 at three months was seen in 70.9% with clinical follow up. On univariate analysis peri-procedural distal emboli was significantly higher in DO group compared to PO group (7% vs. 2%, $p<0.05$) while post-

procedural sICH was significantly lower in DO group compared to PO group (0% vs. 6%, $p < 0.05$); vessel recanalization (TICI $\geq 2b$) was not significantly different between DO and PO. However, procedure time was significantly shorter in the DO group (45 min vs. 52 min, $p = 0.05$) and the mean number of passes were lower in the DO group (1.5 vs. 1.8, $p = 0.01$). Mortality rate and good functional outcome was not significantly different between both groups. On multivariate analysis, DO group had a significantly shorter length of stay by about two days, compared to PO, when controlling for confounders (coef: -2 days, 95%CI: -4 to 0 days, $p = 0.05$). Subjects with PO were over five times more likely to have a good TICI score compared to DO group (OR: 5.69, 95% CI: 1.22–26.5, $p < 0.05$). There was no significant difference in peri-procedural and post-procedural complications, a good functional outcome at three months, and mortality between both groups.

Conclusion Mechanical thrombectomy procedure for distal circulation strokes is as effective and safe as a proximal group. Though distal vessels supply smaller brain area, however when symptoms are pronounced the benefit of the procedure outweighs the risks.

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E-119 FEASIBILITY FOR EXTRACRANIAL CAROTID ARTERY STENTING IN ACUTE ISCHEMIC STROKE PATIENTS AFTER IV-TPA TREATMENT

J Seo*, E Kim. *Neurology, Inje University college of Medicine, Busan, Korea, republic of*

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Purpose The clinical benefit of endovascular thrombectomy (EVT) after intravenous recombinant tissue plasminogen activator (IV rt-PA) has been demonstrated in several studies. Near 10% of acute ischemic stroke (AIS) patients are accompanied with carotid artery atherosclerotic occlusion. The MR Clean study in the Netherlands reported that acute carotid artery stenting (CAS) was performed in 30 patients in the intervention group (12.9%). However, there is no evidence of the benefit for emergent CAS in AIS patients, and there are no clear guidelines for specific medications as an adjunctive therapy within 24 hours of IV rt-PA.

Methods We analyzed single-center registry data retrospectively for 2006 to 2018. Emergent CAS during EVT was performed in select patients according to the operator's decision. Most patients for emergent CAS was not used to antithrombotic medications routinely within 24 hours of IV rt-PA. Only some complicated cases were used intra-arterial or oral antithrombotics within 24 hours of IV rt-PA. Recanalization results were assessed by TICI grade immediately after the procedure. The clinical outcome was evaluated using the 3 months modified Rankin Scale.

Results Among 177 consecutive patients with AIS treated with rt-PA and EVT from 2006 to 2018, twenty-three (12.9%) patients underwent CAS as an EVT. Eighteen patients (78.3%) were accompanied with tandem occlusion. Median age was 68. Median NIHSS was 13. During the emergent carotid artery stenting, pre-stent balloon angioplasty was performed in 20 patients. Carotid Wallstent (Boston Scientific, Natick, USA)

was used in all patients who treated with emergency CAS. Successful installation of CAS was achieved in 22 patients (95.6%). One case of CAS was failed. Two patients were installed multiple carotid stent for carotid dissection. And embolic protection device was used in 13 patients. However, four cases of CAS experienced thromboembolic complications including in-stent thrombosis and distal migration of emboli. In those cases, IA glycoprotein IIb/IIIa infused as a rescue method, and early antiplatelet within 24 hours of rt-PA was administered in one patient. Final successful recanalization (mTICI 2b-3) was achieved in 16 patients (69.5%). Eleven patients (47.8%) had a good functional outcome (modified mRS 0–2). Intracranial hemorrhage was occurred in 4 cases. The mortality case was two. The accompanying tandem occlusion was 61%.

Conclusions In this analysis, successful rate of emergency CAS and intracranial EVT after IV rt-PA was high as 95.6% and 69.5%. The good functional outcomes (mRS 0–2) were 46.7% in patients treated with emergency CAS and the overall clinical outcome would be acceptable.

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E-120 VECTA 071 AND 074 LARGE BORE ASPIRATION CATHETER: INITIAL MULTI-CENTER EXPERIENCE

¹S Satti*, ¹T Sivapatham, ²E Almallouhi, ¹T Eden, ²A Spiotta. ¹Neurointerventional Surgery, Christiana Care Health System, Newark, DE; ²Neurosurgery and Endovascular Neurosurgery, Medical University of South Carolina, Charleston, SC

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Background and objective New large bore aspiration catheters are being used as first line therapy for mechanical thrombectomy in patients with emergent large vessel occlusions. We present the largest combined experience with the new Stryker Neurovascular Vecta 071/074 aspiration catheters. Vecta 074 represents the largest available aspiration catheter in the U.S. We sought to assess the safety, efficacy, direct aspiration first pass success, need for rescue with stent retriever, and clinical improvement.

Methods Multi-institution retrospective review of all Vecta aspiration catheter cases performed at 2 comprehensive stroke centers between January 1, 2019 and March 25, 2019 yielded 26 patients. Key metrics were recorded including pre-procedure ASPECTS score, presenting NIHSS score, last seen normal to groin access, groin access to first device deployment, time to recanalization, revascularization TICI grading, thrombectomy technique (successful direct aspiration, need for rescue stent retriever and number of passes), and outcomes (NIHSS at discharge, rate of symptomatic intracranial hemorrhage sICH, and death prior to discharge).

Results Eighteen 071 and six 074 Vecta aspiration catheters were used (figures.1/2). The average pre-procedure ASPECTS, NIHSS, and time from last seen normal were 8, 17.7, and 5.3 hours, respectively. Time from vascular access to first device delivery was 25.9 minutes. Direct aspiration was attempted as first line technique in all cases and was successful in 72% of cases. 28% of cases required use of a stent retriever to deliver the aspiration catheter (grappling hook technique-figure.3), or for rescue thrombectomy (direct aspiration unsuccessful or to target residual small, distal emboli). TICI 3 revascularization was achieved in 46%, TICI 2C in 23%, TICI 2B in 26%, and 5% with unsuccessful TICI 2A revascularization. The average NIHSS on discharge was 6.1 with two patients expiring prior