Conclusion The shorter and simpler PREDICT scale was found to be less preferable with EMS provider all-comers, which may be partially due to the mere-exposure cognitive bias effect though this difference persisted in providers who had no prior exposure to either scale. In providers who enrolled multiple patients, there was a statistically insignificant trend towards preference for RACE between their first and last screening.

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E-097 TECHNICAL OUTCOMES OF MECHANICAL THROMBECTOMY USING THE SOFIA PLUS ASPIRATION CATHETER

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Introduction The Sofia Plus aspiration catheter (Microvention; Tustin, CA) is a recently introduced 0.070-inch inner diameter catheter designed to provide distal intracranial access and engage thrombus to facilitate thrombectomy for acute ischemic stroke.

Methods This single-center retrospective study assessed technical outcomes of mechanical thrombectomy using the Sofia Plus aspiration catheter. Utilizing a prospective database of all acute stroke interventions at our institution, cases utilizing SOFIA Plus on the first pass were identified. Patient characteristics, procedural details, and radiographic outcomes were analyzed.

Results Sofia Plus was utilized as a first pass aspiration catheter in 138 cases. Patients presented with a median NIHSS of 17 (IQR 10–22), ASPECT of 10 (IQR 8–10), and had target occlusions involving the ICA (n=30), M1 (n=73), M2 (n=22), or basilar artery (n=13). The aspiration catheter was used for first-pass direct aspiration alone in 86 patients (62%), and in conjunction with a stent retriever in 52 patients (38%). A recanalization grade of TICI 2b or better was achieved in 118 patients (86%), which was accomplished with a single pass in 88 (64%). Median time from groin puncture to recanalization was 44 minutes (IQR 30–68). Comparison of direct aspiration alone versus with stent retrievers demonstrated no difference in recanalization grade ($p=0.64$) or rates of first-pass recanalization ($p=0.28$), but direct aspiration was associated with faster recanalization (41 vs 53 minutes, $p=0.02$). There were two cases of vessel perforation (both involving stent retrievers), and two additional patients had symptomatic ICH on follow-up CT.

Conclusions Our experience demonstrates that the SOFIA Plus aspiration can facilitate safe and effective revascularization for acute ischemic stroke, either using a direct aspiration technique or in conjunction with a stent-retriever. However, reperfusion was achieved faster with direct aspiration alone.

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E-098 MECHANICAL THROMBECTOMY IN THE EXTENDED 24 HOUR TIME WINDOW FOR ACUTE ISCHEMIC STROKE PATIENTS WITH LARGE VESSEL OCCLUSION

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Introduction In 2018 the AHA guidelines were updated to include expansion of the mechanical thrombectomy (MT) window for acute ischemic stroke (AIS) patients with anterior circulation large vessel occlusion (LVO) from 6 to 24 hours. We report our institution's clinical experience with the expanded 24 hour MT window.

Methods Among 166 AIS patients with LVO who underwent MT from January 1, 2018 to July 1, 2019 at our comprehensive stroke program, we identified 77 patients (46%) with anterior circulation LVO treated in the extended 24 hour time window. Data was abstracted on demographics, time of Last Known Normal (LKN), National Institutes of Health Stroke Scale (NIHSS), CT brain perfusion (CTP), cerebral blood flow (CBF), time to maximum (Tmax), clinical presentation, Thrombolysis in Cerebral Infarction (TICI) score, and outcomes. Symptomatic hemorrhage was defined as neurological worsening within 36 hours accompanied by an NIHSS score increase ≥ 4 with correlative imaging. Good functional outcome was defined as 90 day modified Rankin Score of ≤ 2 .

Results Among 77 AIS patients with anterior circulation LVO who underwent MT in the expanded window, the mean age was 66.7 years (range, 26 to 98), 39 (51%) were female, and 69 (90%) were white. Stroke risk factors included atrial fibrillation 48 (62%), diabetes 53 (69%), and hypertension 53 (69%). Only 10 (13%) received intravenous thrombolysis. Initial mean NIHSS was 14.5 (range 1 to 28). CTP was available in 72 (94%) and the mean time from LKN to CTP was 12.0 hours (range, 2.8 – 22.8 hours). CTP mean CBF was 22.8 mL/100 g/min (range, 0 – 157 mL/100 g/min). CTP mean Tmax was 113.6 s (range, 0 to 289 s). Mean time from LKN to MT groin puncture was 12.9 hours (range, 6.1 to 23.5) and 69 (90%) achieved TICI 2B or 3 recanalization. Symptomatic hemorrhage occurred in 5 (6.5%). Fifteen patients (19.5%) expired. Among the 62 patients who survived, the mean discharge NIHSS was 8.8 (range, 0 to 26). Good functional outcome occurred in 19 (24%).

Conclusions AIS patients with anterior circulation LVO treated in the expanded 24 hour MT window account for nearly half of our center's MT volume. Although high revascularization rates and low symptomatic hemorrhage rates were observed similar to the clinical trials, good functional outcome was lower than the trials.

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E-099 PARTICLE ANALYSIS OF A NOVEL LIQUID EMBOLIC

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Introduction Endovascular devices are becoming more widely accepted ischemic stroke treatment options in patient health-care. Current device testing methods must be developed to quantify downstream particulate migration. In vivo models are