

calcifications were then further imaged with Micro CT for characterization of calcified structures.

Results 120 human cadaveric carotid artery specimens and 60 carotid endarterectomy specimens were imaged. Of these, 23 specimens were shortlisted for recurrent distinguishable patterns of calcifications with SFE and imaged with Micro CT. The patterns of calcifications were divided into three major categories namely juxta-luminal, intra-luminal and mixed. Juxta-luminal calcifications were further divided into either covered, if covered by intima or exposed if not covered by non-calcified intima. Intra luminal calcifications were further divided into nodules (smooth protrusion) and coral calcifications (numerous disorganized spiculae and loosely consolidated small fragments of calcified particles). Coral calcifications could be either immobile (covered with tissue) or mobile (loosely attached to the arterial surface by thin threads of tissue).

Conclusion Laser angioscopy revealed recurrent phenotypes of intimal calcification with possible diagnostic, prognostic, and therapeutic relevance.

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E-100 NEW OR DEVELOPING INTRACRANIAL HEMORRHAGE AFTER MECHANICAL THROMBECTOMY

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Introduction Mechanical thrombectomy (MT) serves as an alternative measure to medically refractory cases of cerebral venous thrombosis (CVT). Here we describe new or increased intracerebral hemorrhage (ICH) as a periprocedural complication to MT for CVT and its correlative factors.

Methods A retrospective review of all CVT cases treated with venous thrombectomy between June 2016 and August 2021 was performed within our institutional, neuroendovascular database.

Results Peri-procedural new or increased ICH was identified in 8/30 (26.7%) of patients overall. In all of these patients, new or increased ICH was identified post-MT. Presence of stupor or coma was identified in 10/30 (33.3%) of patients. Among these, 5/10 (50%) experienced new or increased ICH. Partial recanalization after MT occurred in 13/30 (43.3%) of patients. Among these, 6/13 (46.1%) experienced new or increased ICH. Among the 17 who did not achieve partial recanalization (13 with complete and 4 with none), 15/17 (88.2%) did not experience new or increased ICH ($p < 0.01$). Internal jugular (IJ) sinus occlusion was identified in 9/30 (30%) of our CVT cohort. A strong negative correlation was identified between IJ thrombosis and development of new or increased ICH (0/9, $p < 0.01$).

Conclusion Periprocedural new or increased ICH showed a strong positive correlation with presence of stupor/coma, partial recanalization, and a negative correlation with IJ thrombosis. The association with partial recanalization will be incorporated in future studies with a larger cohort to determine if incomplete MT may be predictive of other outcomes as well.

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E-101 RESCUE STENTING FOR INTRACRANIAL STENOSIS IN EMERGENT LARGE VESSEL OCCLUSION PATIENTS USING THE NEUROFORM ATLAS STENT THROUGH THE GATEWAY BALLOON: PRELIMINARY REPORT

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Background Management of acute large vessel occlusion due to intracranial stenosis remains challenging with high complications and poor recanalization rates. Morbidity is also related to the intracranial exchange that is required for stent placement after the rescue angioplasty. We aim to present our initial experience of deployment of Neuroform Atlas stent through the lumen of a Gateway angioplasty balloon to avoid microcatheter exchange.

Methods Patients were identified from prospectively collected mechanical thrombectomy stroke database from Feb 2019 to July 2021. Demographic and clinical information was collected. Primary outcomes were favorable functional outcome at hospital discharge (modified Rankin Scale (mRS) score of 0–3), and the rate of intracranial hemorrhage (ICH). Good angiographic recanalization (TICI \geq 2b), and mortality at 30 days were other outcomes.

Results We identified 5 patients treated with this approach [mean age 54 ± 14 years, all were men] who presented with large vessel occlusion of middle cerebral artery. Initial median NIHSS was 8 (range 6–16) with one patient received IV t-PA. Patient initially underwent mechanical thrombectomy using the Solumbra technique. Due to reocclusion or impending occlusion with evidence of atherosclerotic plaque, rescue angioplasty with stent placement was performed. Patients were loaded with 650 mg of aspirin and 180 mg of ticagrelor through nasogastric tube prior. Balloon angioplasty was performed using the gateway balloon size ranging from 1.5 to 3 mm which was inflated to subnominal pressures over 1 minutes. This was followed by placing Neuroform atlas stent through the gateway balloon with size ranging from 3 to 4 mm diameter and length 21–24 mm. TICI \geq 2b was achieved in 4 patients. Mean time from symptoms onset to revascularization was (336 ± 90) minutes. One patient had asymptomatic ICH. 2 patients had mRS 0–3 at the time of discharge and one patient was dead at 1 month.

Conclusion Our preliminary experience showed the diminished risk of guidewire perforation as well as potentially decreased operative time and early reperfusion by deploying the Neuroform stent through a compatible gateway balloon microcatheter. This should be investigated further in large multicenter studies

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E-102 COMBINED ASPIRATION AND STENTRIEVER INTERVENTION FOR CEREBRAL VENOUS THROMBOSIS

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Introduction Mechanical thrombectomy (MT) serves as an alternative measure to medically refractory cases of cerebral venous thrombosis (CVT). Varying techniques to achieve