

from 13185(2016) to 29640(2019)[figure 1]. Inoue et al (2014) reported 75/210 patients having DWI ASPECTS <6 (proportion: 35.71%, 95% CI: 29.54%-42.40%). Tisserand et al (2016) reported 54/267 patients with DWI lesion volume  $\geq 70$ ml (proportion: 20.22%, 95% CI: 15.83%-25.47%). In the SELECT2 trial, 39/329(11.85%) with ASPECTS <6 and who met trial eligibility criteria otherwise had ASPECTS 0-2. Applying these criteria to the 2019 EVT cases for anterior circulation LVOs, 9330 (95% CI: 7718-11078) additional EVTs would be performed for MR DWI ASPECTS <6 (excluding patients with ASPECTS 0-2), whereas based on DWI core  $\geq 70$ ml criteria, 5283 (95% CI: 4136-6654) additional EVTs would be performed (excluding patients with ASPECTS 0-2). Analyses based on CT ASPECTS <6 criteria are ongoing and will be available for presentation at SNIS 2023 meeting.

**Conclusion** Our preliminary analyses demonstrate that expansion of eligibility criteria for LIS would result in an increase in EVT cases from lower end 4136(14%increase) to 11078 (37%increase) on higher end. These estimates and further analyses into how these increased number of cases would affect current systems of care and would help guide the long-term planning and policy decisions.

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O-010

#### TIGERTRIEVER IN THE TREATMENT OF ACUTE ISCHEMIC STROKE IN PATIENTS WITH UNDERLYING INTRACRANIAL ATHEROSCLEROTIC DISEASE

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**Introduction** The Tigertriever allows the operator to control the radial expansion inside the target vessel. The increased radial force of Tigertriever may provide a more effective thrombectomy in patients with acute ischemic stroke (AIS) due to intracranial atherosclerotic disease (ICAD). We analyzed data from the TIGER trial<sup>1</sup> to determine the safety and effectiveness of Tigertriever in patients with ICAD.

**Methods** Computed tomography angiography, and digital subtraction angiography of patients enrolled in the TIGER trial

who had underlying ICAD were analyzed by a blinded core laboratory. Underlying ICAD at the large vessel occlusion was adjudicated by two independent investigators. In case of discrepancy, a third senior investigator served as adjudicator. Successful reperfusion was defined as TICI 2b-3 within three passes (figure 1). Only patients who did not require rescue therapy with other devices were included in the analysis to decrease cofounders.

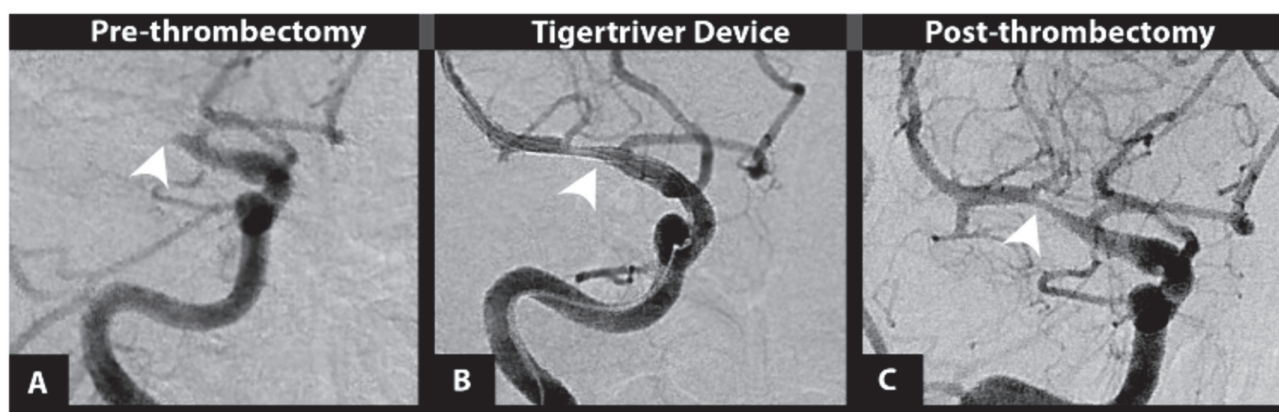
**Results** One-hundred sixty patients who were included in the TIGER trial were analyzed. Twenty percent (32/160) of patients were determined to have underlying ICAD that may have contributed to the occlusion due to stenosis or was the primary etiology for the large vessel occlusion. Twenty-three (23/32, 72%) patients with ICAD achieved successful reperfusion within 3 passes; the rest required rescue treatment with ancillary devices. Baseline NIHSS score was 16.5 (IQR=7) and median baseline ASPECT score was 9 (IQR=1). Tigertriever had a higher successful reperfusion rate within the first 3 passes (72%) compared to other studies with other stentriever (63%-65). An increase in the proximal diameter of the occluded vessel was seen after thrombectomy ( $1.55 \pm 0.74$  versus  $1.86 \pm 0.7$ ,  $p < 0.001$ ). No symptomatic intracranial hemorrhages were observed while asymptomatic intracranial hemorrhage at 24 hours occurred in 17.4% (4/23) of patients. No procedural complications were reported. The NIHSS at 24-hours was  $7.95 \pm 7.12$ , and mortality rate for any cause at 3 months was 21.74% (5/23). At three months, 68% (14/23) of patients achieved a mRS score of < 2, compared to historical controls with other stentriever (42.4% (15/36); 42% (10/24).

**Conclusion** Tigertriever exerts a higher radial force that can be manually tailored to achieve better recanalization in patients with LVO due to ICAD.

#### REFERENCE

- Gupta R, Saver JL, Levy E, et al. New class of radially adjustable stentriever for acute ischemic stroke: primary results of the multicenter TIGER trial. *Stroke*. May 2021;**52**(5):1534-1544. doi:10.1161/strokeaha.121.034436

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**Abstract O-010 Figure 1** (A) A right M1 occlusion due to underlying ICAD (arrowhead). (B) The Tigertriever is deployed across the stenosis. The device 'massages' the thrombus and exerts an increased radial force in stenotic lesions due to ICAD (arrowhead). (C) Recanalization with mild residual stenosis (arrowhead)