

SUPPLEMENTAL MATERIAL**Identifying large ischemic core volume ranges in acute stroke that can benefit from mechanical thrombectomy**

Supplemental Figure I Study flow chart (Page 2)

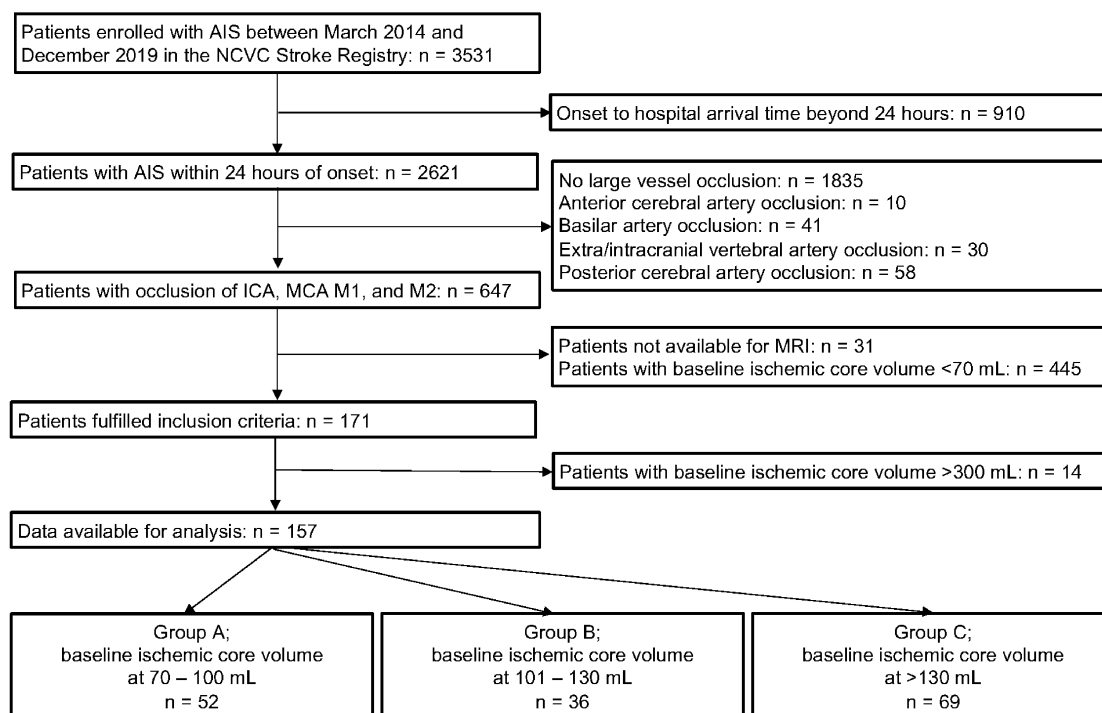
Supplemental Figure II Distribution of baseline ischemic core volume over each baseline DWI-ASPECTS (Page 3)

Supplemental Table I Endovascular therapy procedure between groups by ischemic core volume in patients receiving endovascular therapy (Page 4–5)

Supplemental Figure III Treatment effect of mechanical thrombectomy versus standard medical treatment (Page 6)

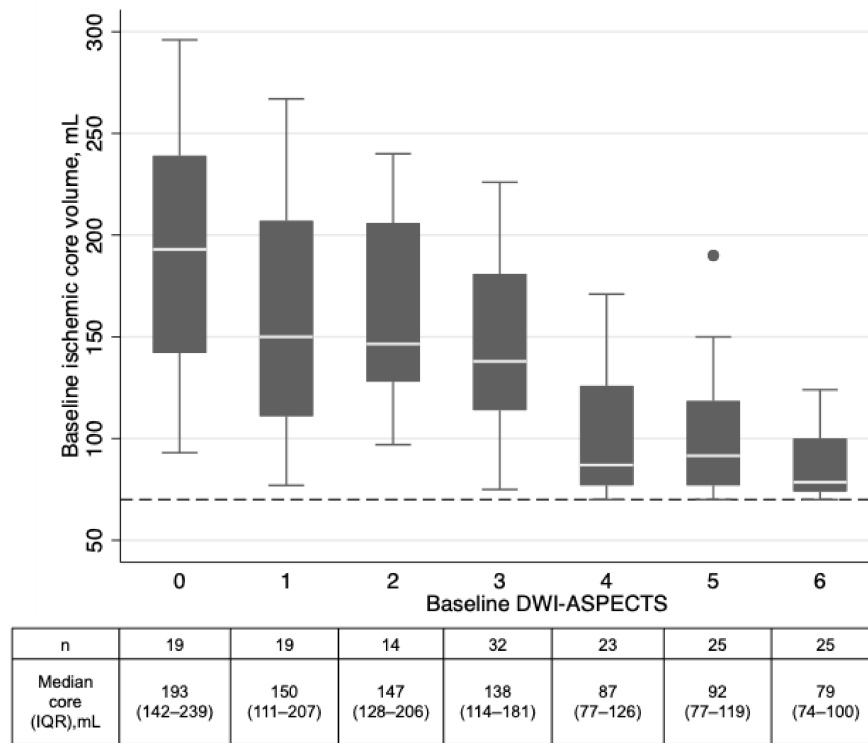
Supplemental Figure IV Associations between degree of recanalization and either mRS score 0–2 at 3 months or parenchymal hematoma in patients who received MT (Page 7)

Supplemental Figure I Study flow chart



Abbreviations: AIS, acute ischemic stroke; ICA, internal carotid artery; MCA, middle cerebral artery; MRI, magnetic resonance imaging; NCVC, National Cerebral and Cardiovascular Center.

Supplemental Figure II Distribution of baseline ischemic core volume over each baseline DWI-ASPECTS



Boxes indicate interquartile range; whiskers, extreme values; horizontal lines in each box, median; horizontal dotted line, 70 mL; round dots, outliers.

Abbreviations: DWI-ASPECTS, Diffusion-Weighted Imaging–Alberta Stroke Program Early Computed Tomography Score

Supplemental Table I Endovascular therapy procedure between groups by ischemic core volume in patients receiving endovascular therapy

Group (baseline ischemic core volume)	Group A (70–100 mL)	Group B (101–130 mL)	Group C (>130 mL)
	(n=31)	(n=14)	(n=4)
First-line mechanical thrombectomy	31 (100)	14 (100)	4 (100)
Simple stent retriever	3 (10)	3 (22)	4 (100)
Aspiration	7 (22)	4 (28)	0
Combination of stent retriever and aspiration catheter*	21 (68)	7 (50)	0
First-line mechanical thrombectomy devices**			
Solitaire stent retriever	15 (48)	8 (57)	4 (100)
Trevo stent retriever	9 (29)	6 (43)	0
EmboTrap revascularization device	1 (3)	0	0
Tron stent retriever	2 (7)	0	0
Penumbra aspiration catheter***	28 (90)	11 (79)	0
Rescue technique			
Carotid artery stenting	2 (7)	0	0
Balloon angioplasty and/or stenting	1 (3)	0	0
Time logistics****, min			
Onset-to-groin puncture time	139 [103–325]	135 [116–224]	86 [73–121]
Onset-to-recanalization time	234 [160–424]	213 [201–373]	154 [117–198]
Groin puncture-to-recanalization time	86 [42–122]	56 [66–97]	40 [33–58]
Number of passes	1 [1–3]	2 [1–2]	1 [1–2]
Successful recanalization*****	26 (84)	11 (79)	4 (100)
Complete recanalization	7 (23)	3 (21)	1 (25)

Data are presented as number (%) or median [interquartile range].

*Combination of stent retriever and aspiration catheter included embolectomy techniques, such as continuous aspiration prior to intracranial vascular embolectomy and blind exchange with mini-pinning technique.

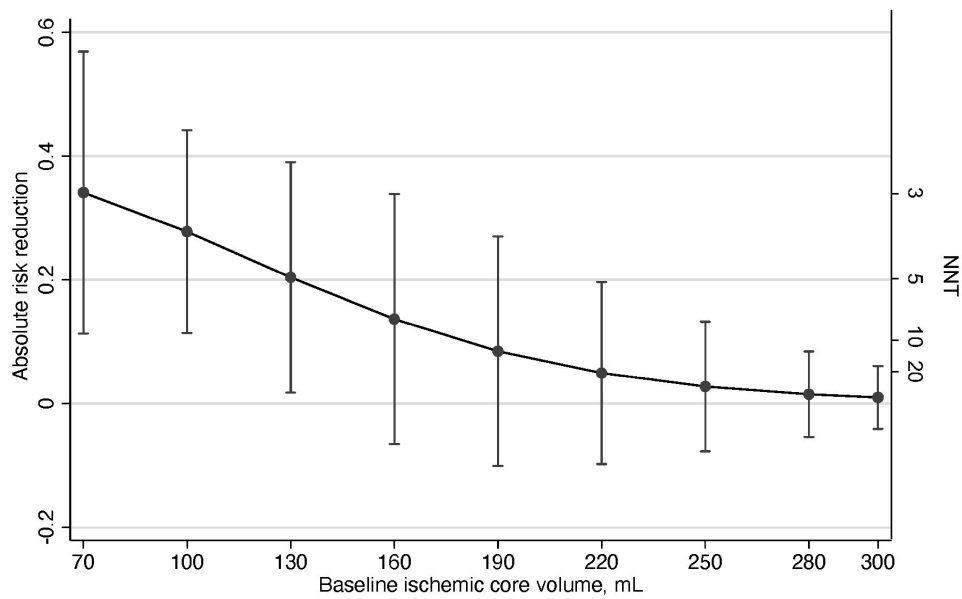
**First-line mechanical thrombectomy devices were the Solitaire stent retriever (ev3, Irvine, CA, USA), Trevo stent retriever (Stryker, Kalamazoo, MI, USA), EmboTrap revascularization device (Cerenovus, Galway, Ireland), Tron stent retriever (Terumo, Tokyo, Japan), and Penumbra aspiration catheter (Penumbra, Alameda, CA, USA).

***Patients receiving a Penumbra aspiration catheter as a distal access catheter were included.

****Time of onset was defined as either the time point at which the symptom appeared or the “last-known-well” date, if time of symptom onset was unknown. Time of recanalization was defined as the time point of confirmed successful reperfusion or when the procedure was terminated with no reperfusion.

*****Successful recanalization was defined as a modified Thrombolysis in Cerebral Infarction (mTICI) scale of 2b or 3, and complete recanalization was defined as an mTICI score of 3.

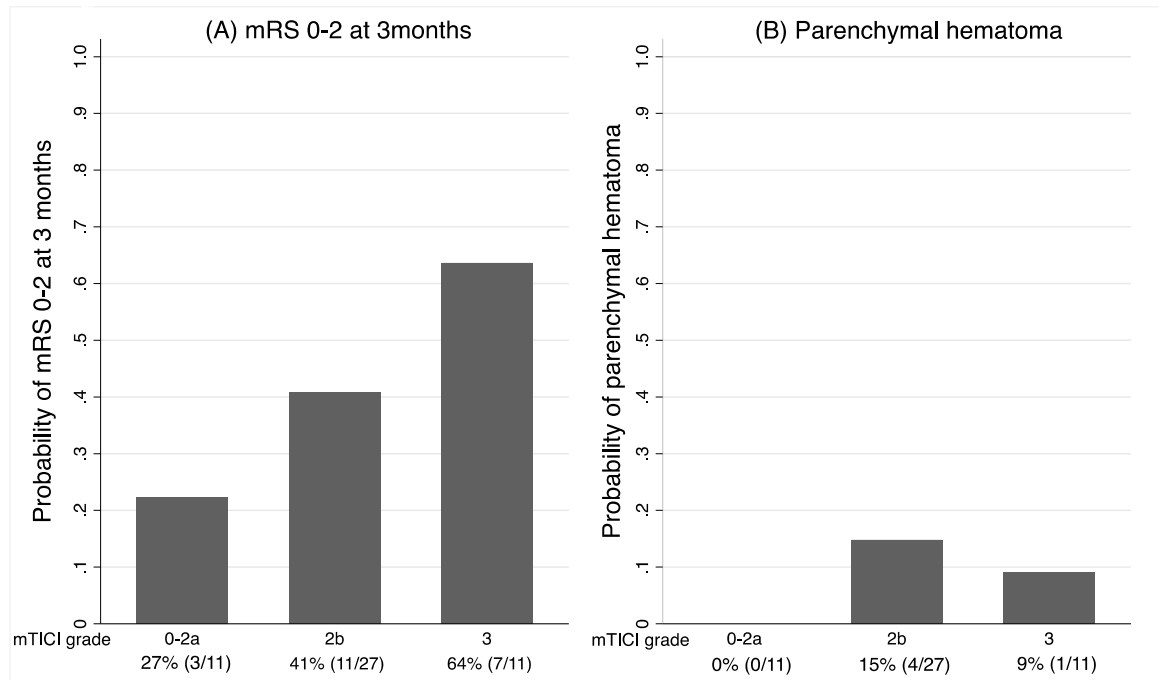
Supplemental Figure III Treatment effect of mechanical thrombectomy versus standard medical treatment



Models adjusted for sex, age, prestroke mRS score, baseline National Institutes of Health Stroke Scale score, baseline ischemic core volume, onset-to-imaging time, internal carotid artery occlusion, and intravenous thrombolysis.

Abbreviations: mRS, modified Rankin Scale; NNT, number needed to treat.

Supplemental Figure IV Associations between degree of recanalization and either mRS score 0–2 at 3 months or parenchymal hematoma in patients who received MT



Abbreviations: mRS, modified Rankin Scale; mTICI, modified Thrombolysis in Cerebral Infarction; MT, mechanical thrombectomy.