

Supplementary Material

Supplemental Table 1. Imaging core laboratory adjudicated reperfusion rates for M1 (N=126) and M2 (N=57) middle cerebral artery (MCA) occlusions.

| | MCA M1 (N=126) | MCA M2 (N=57) | p value* |
|-----------------------------------|---------------------------|--------------------------|-----------------|
| First Pass mTICI ≥ 2b | 65 (51.6%) | 28 (49.1%) | 0.7575 |
| First Pass mTICI ≥ 2c | 48 (38.1%) | 22 (38.6%) | 0.9485 |
| First Pass mTICI 3 | 33 (26.2%) | 18 (31.6%) | 0.4515 |
| Last of up to 3 Passes mTICI ≥ 2b | 100 (79.4%) | 45 (78.9%) | 0.9486 |
| Last of up to 3 Passes mTICI ≥ 2c | 78 (61.9%) | 37 (64.9%) | 0.6966 |
| Last of up to 3 Passes mTICI 3 | 49 (38.9%) | 29 (50.9%) | 0.1288 |
| Final Pass mTICI ≥ 2b | 116 (92.1%) | 52 (91.2%) | 1.0000 |
| Final Pass mTICI ≥ 2c | 94 (74.6%) | 42 (73.7%) | 0.8952 |
| Final Pass mTICI 3 | 59 (46.8%) | 32 (56.1%) | 0.2432 |

*For categorical variables, p-values are generated using a χ^2 test or a Fisher's exact test (due to expected cell sizes < 5) as appropriate.

Supplemental Table 2. Adverse events in the entire cohort, and subgroups of M1 and M2 occlusions.

| Event Term | All Patients (N=183) | | MCA M1 (N=126) | | MCA M2 (N=57) | |
|--------------------------------|-------------------------|-------------|-------------------|-------------|------------------|-------------|
| | Related | Not Related | Related | Not Related | Related | Not Related |
| HBC-HI-1* | 3 (1.6%) | 16 (8.7%) | 2 (1.6%) | 14 (11.1%) | 1 (1.8%) | 2 (3.5%) |
| HBC-HI-2 | 2 (1.1%) | 23 (12.6%) | 2 (1.6%) | 14 (11.1%) | 0 (0%) | 9 (15.8%) |
| HBC-PH-1 | 1 (0.5%) | 3 (1.6%) | 0 (0%) | 3 (2.4%) | 1 (1.8%) | 0 (0%) |
| HBC-PH-2 | 0 (0%) | 4 (2.2%) | 0 (0%) | 3 (2.4%) | 0 (0%) | 1 (1.8%) |
| Ischemic stroke | 1 (0.5%) | 10 (5.5%) | 1 (0.8%) | 4 (3.2%) | 0 (0%) | 6 (10.5%) |
| Brain edema | 0 (0%) | 6 (3.3%) | 0 (0%) | 6 (4.8%) | 0 (0%) | 0 (0%) |
| Neurological decompensation | 1 (0.5%) | 4 (2.2%) | 0 (0%) | 4 (3.2%) | 1 (1.8%) | 0 (0%) |
| Intracranial artery dissection | 4 (2.2%) | 0 (0%) | 3 (2.4%) | 0 (0%) | 1 (1.8%) | 0 (0%) |
| Vessel perforation | 4 (2.2%) | 0 (0%) | 3 (2.4%) | 0 (0%) | 1 (1.8%) | 0 (0%) |
| Carotid artery dissection | 3 (1.6%) | 0 (0%) | 0 (0%) | 0 (0%) | 3 (5.3%) | 0 (0%) |
| Cerebral vasoconstriction | 3 (1.6%) | 0 (0%) | 2 (1.6%) | 0 (0%) | 1 (1.8%) | 0 (0%) |
| Cerebral artery embolism | 2 (1.1%) | 0 (0%) | 2 (1.6%) | 0 (0%) | 0 (0%) | 0 (0%) |
| Vessel puncture site hematoma | 2 (1.1%) | 0 (0%) | 1 (0.8%) | 0 (0%) | 1 (1.8%) | 0 (0%) |
| Cerebral artery occlusion | 1 (0.5%) | 0 (0%) | 0 (0%) | 0 (0%) | 1 (1.8%) | 0 (0%) |
| Myocardial infarction | 0 (0%) | 1 (0.5%) | 0 (0%) | 1 (0.8%) | 0 (0%) | 0 (0%) |
| Pneumothorax | 0 (0%) | 1 (0.5%) | 0 (0%) | 1 (0.8%) | 0 (0%) | 0 (0%) |
| Seizure | 0 (0%) | 1 (0.5%) | 0 (0%) | 0 (0%) | 0 (0%) | 1 (1.8%) |
| Sepsis | 0 (0%) | 1 (0.5%) | 0 (0%) | 1 (0.8%) | 0 (0%) | 0 (0%) |
| Aspiration pneumonia | 0 (0%) | 1 (0.8%) | 0 (0%) | 2 (3.5%) | 0 (0%) | 3 (1.6%) |
| Myocardial infarction | 0 (0%) | 1 (0.8%) | 0 (0%) | 0 (0%) | 0 (0%) | 1 (0.5%) |

* Heidelberg Bleeding Classification of post-procedural hemorrhage.

Supplemental Table 3. Multivariate logistic regression, showing the odds ratio for M2 occlusion compared to M1 occlusion for key primary and secondary outcomes.

| | Adjusted Odds Ratio | 95% Confidence Interval | p value |
|--|----------------------------|--------------------------------|----------------|
| Good outcome (90 day mRS 0-2), n (%) ¹ | 0.943 | 0.474 - 1.879 | 0.8684 |
| 90 day mRS 0-1, n (%) ² | 0.918 | 0.431 - 1.956 | 0.8254 |
| All-cause mortality at 90 days, n (%) ² | 1.428 | 0.434 - 4.695 | 0.5576 |

¹ Final model contains the following covariates: clot location (reference MCA M1 occlusion), patient age (reference < 75 years), NIHSS score at admission.

² Final model contains the following covariates: clot location (reference MCA M1 occlusion), patient age (reference < 75 years), sex (reference female), NIHSS score at admission.