# Supplemental Online Content

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This supplemental material has been provided by the authors to give readers additional information about their work.

**eTable 1. Inclusion and Exclusion Criteria**

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|---|
| **Inclusion criteria** |
| 1. Age ≥20 years |
| 2. Patients who underwent EVT for acute cerebral infarction with large cerebrovascular occlusion (ICA, MCA, M1 or M2, BA, VA, ACA, A1, or PCA, P1) |
| 3. Patients with successful cerebral artery reopening after intraarterial reopening (modified Treatment In Cerebral Infarction score, mTICI 2b or mTICI 3) |
| 4. Patients with elevated BP (systolic BP ≥140 mmHg) on at least two measurements with a two-minute interval within 2 hours of successful recanalization. |
| **Exclusion criteria** |
| 1. Age <20 years |
| 2. Patients whose BP is less than 140 mmHg after successful recanalization through IAT |
| 3. Patients with contraindications for use of antihypertensive medication |
| 4. Patients with symptomatic ICH before participating in the study after the successful arterial reopening |
| 5. Patients with impaired pre-disease neurological function (modified Rankin Scale, mRS >2) |
| 6. Serious medical or surgical illness |
| 7. Patients who are deemed hard to recruit for the study by the investigators. |
| 8. Patients who did not agree to participate in this study |
| 9. Patients who participated in a study that did not allow duplicate participation |

Abbreviation: EVT, endovascular thrombectomy; ICA, internal carotid artery; MCA, middle cerebral artery; BA, basilar artery; VA, vertebral artery; ACA, anterior cerebral artery; PCA, posterior cerebral artery; BP, blood pressure; ICH, intracerebral hemorrhage.

**eTable 2. Demographic and Clinical Characteristics in Intention-to-Treat Analysis**

| Characteristics | Intensive management (N=155) | Conventional management (N=150) |
|---|---|---|
| **Demographics** | | |
| Age, mean (SD), y | 73.2 (12.1) | 72.9 (10.8) |
| Sex, No. (%) | | |
| Female | 63 (40.6) | 60 (40.0) |
| Male | 92 (59.4) | 90 (60.0) |
| **Medical history, No. (%)** | | |
| Hypertension | 121 (78.1) | 113 (75.3) |
| Atrial fibrillation | 77 (49.7) | 71 (47.3) |
| Diabetes mellitus | 65 (41.9) | 65 (43.3) |
| Hyperlipidemia | 61 (39.4) | 56 (37.3) |
| Smoking | 39 (25.2) | 29 (19.3) |
| Previous stroke | 36 (23.2) | 31 (20.7) |
| CAOD | 18 (11.6) | 16 (10.7) |
| Active cancer | 9 (5.8) | 5 (3.3) |
| Congestive heart failure | 7 (4.5) | 7 (4.7) |
| PAOD | 2 (1.3) | 6 (4.0) |
| NIHSS score just before EVT[a] | 13 (6) | 13 (7) |
| 0-5 | 14 (9.0) | 18 (12.0) |
| 6-15 | 83 (53.5) | 81 (54.0) |
| ≥16 | 58 (37.4) | 51 (34.0) |
| Intravenous tissue-type plasminogen activator | 44 (28.4) | 55 (36.7) |
| **TOAST classification, No. (%)**[b] | | |
| Cardioembolism | 76 (49.0) | 78 (52.0) |
| Large artery atherosclerosis | 41 (26.5) | 43 (28.7) |
| Stroke of other determined etiology | 4 (2.6) | 1 (0.7) |
| Undetermined, negative evaluation | 21 (13.5) | 23 (15.3) |
| Undetermined, two or more causes identified | 13 (8.4) | 5 (3.3) |
| **Time parameters** | | |
| Onset to puncture time, median (IQR), minutes | 388.0 (223.5, 692.5) | 356.0 (208.0, 730.0) |
| Puncture to reperfusion time, median (IQR), minutes | 30.0 (22.0, 47.0) | 31.5 (20.0, 48.0) |
| Onset to reperfusion time, median (IQR), minutes | 421.0 (265.5, 772.0) | 395.5 (253.0, 764.0) |
| Onset to randomization time, median (IQR), minutes | 495.0 (327.5, 825.0) | 472.5 (315.0, 820.0) |

Abbreviation: CAOD, coronary artery obstructive disease; PAOD, peripheral artery occlusive disease; NIHSS, National Institute of Health Stroke Scale; EVT, endovascular thrombectomy; TOAST classification, Trial of ORG 10172 in Acute Stroke Treatment classification.

[a]The NIHSS score ranges between 0 and 42, where a score of 0 signifies no symptoms (best outcome), and a score of 42 represents a state of coma (worst outcome).

[b]The TOAST classifications were determined based on a consensus of stroke neurologists in each participating hospital.

**eTable 3. Changes of Blood Pressure Between Groups**

| | Intensive management (N=155) | Conventional management (N=150) | *P* value |
|---|---|---|---|
| **BP parameters** | | | |
| SBP at enrollment, mean (SD), mmHg | 155.2 (13.4) | 154.8 (14.4) | .80 |
| DBP at enrollment, mean (SD), mmHg | 83.9 (14.4) | 85.4 (14.1) | .38 |
| SBP at 1h, mean (SD), mmHg | 135.1 (19.9) | 140.6 (19.5) | .02 |
| DBP at 1h, mean (SD), mmHg | 77.8 (16.1) | 80.3 (15.3) | .17 |
| SBP at 24 h, mean (SD), mmHg | 128.5 (16.3) | 137.1 (19.9) | <.001 |
| DBP at 24 h, mean (SD), mmHg | 70.7 (12.7) | 75.1 (11.6) | .002 |
| Mean SBP over 24 h, mean (SD), mmHg | 129.2 (7.7) | 138.0 (13.6) | <.001 |
| Mean DBP over 24 h, mean (SD), mmHg | 72.0 (8.1) | 77.0 (9.9) | <.001 |
| **Time in target SBP range (%)** | | | |
| SBP <140 mmHg, mean (SD) | 83.0 (15.3) | 54.2 (32.2) | <.001 |
| SBP 140-180 mmHg, mean (SD) | 14.2 (13.5) | 42.1 (30.4) | <.001 |
| SBP <180 mmHg, mean (SD) | 99.6 (1.5) | 99.1 (3.1) | .07 |
| **SBP out of range, No. (%)** | | | |
| SBP exceeding >180 mmHg at least once | 6 (3.9) | 14 (9.3) | .09 |
| SBP exceeding >200 mmHg at least once | 2 (1.3) | 1 (0.7) | >.999 |
| SBP dropping <100 mmHg at least once | 46 (29.7) | 26 (17.3) | .02 |
| **Intravenous BP medication, No. (%)** | 115 (74.2) | 28 (18.7) | <.001 |
| Nicardipine | 107 (69.0) | 28 (18.7) | <.001 |
| Labetalol | 10 (6.5) | 0 (0.0) | .004 |

Abbreviation: BP, blood pressure; SBP, systolic blood pressure; DBP, diastolic blood pressure.

**eTable 4. Primary and Secondary Outcomes in Per-Protocol Analysis**

| | Intensive management (n = 148) | Conventional management (n = 140) | Risk difference (95% CI) | Unadjusted OR (95% CI) | Adjusted OR[a] (95% CI) | p-value |
|---|---|---|---|---|---|---|
| **Primary efficacy outcome** | | | | | | |
| Favorable independence at 3 months (mRS score 0-2) | 59/148 (39.8) | 80/140 (57.1) | -17.3 (-28.7 to -5.9) | 0.50 (0.31 to 0.80) | 0.52 (0.30 to 0.90) | .02 |
| **Primary Safety outcomes** | | | | | | |
| Symptomatic intracerebral hemorrhage | 12/148 (8.1) | 11/140 (7.9) | 0.3 (-6.0 to 6.5) | 1.04 (0.44 to 2.43) | 0.96 (0.40 to 2.32) | .93 |
| Death related to the index stroke within 3 months | 12/148 (8.1) | 7/140 (5.0) | 3.1 (-2.6 to 8.8) | 1.68 (0.64 to 4.39) | 1.65 (0.57 to 4.82) | .36 |
| **Secondary outcomes** | | | | | | |
| mRS score reduction (shift analysis) | | | | 0.55 (0.36 to 0.83) | 0.62 (0.41 to 0.95) | .03 |
| NIHSS score at 24 hours, mean (SD) | 11.32 (7.20) | 9.01 (6.99) | | 2.23 (0.58 to 3.88) | 1.06 (-0.13 to 2.30)[b] | .08 |
| Excellent recovery of NIHSS score at 24 hours[c] | 23/146 (15.8) | 36/140 (25.7) | -1.0 (-19.3 to 0.6) | 0.54 (0.30 to 0.97) | 0.60 (0.33 to 1.10) | .10 |
| Successful reperfusion at 24 hours[d] | 126/140 (90) | 127 /135 (94.1) | -4.1 (-10.4 to 2.3) | 0.57 (0.23 to 1.40) | 0.60 (0.23 to 1.54) | .29 |
| Favorable independence at 1 month (mRS score 0-2) | 54/143 (37.8) | 71/137 (51.9) | -4.1 (-25.6 to -2.5) | 0.56 (0.35 to 0.91) | 0.64 (0.37 to 1.10) | .11 |
| Euro-QoL score, mean (SD) | 0.51 (0.43) | 0.64 (0.39) | | -0.13 (-0.22 to -0.03) | -0.09 (-0.17 to -0.01)[b] | .04 |
| Malignant cerebral edema[e] | 10/148 (6.7) | 2/140 (1.4) | 5.3 (0.8-9.8) | 5.00 (1.08 to 23.24) | 6.01 (1.19 to 30.27) | .03 |

Abbreviation: EQ-5D-3L, EuroQoL 5-Dimension Self-Report Questionnaire; mRS, modified Rankin Scale; NIHSS, National Institute of Health Stroke Scale; OR, odds ratio.

[a]Adjusted for age, sex, onset to randomization time, and the NIHSS score just before endovascular thrombectomy.

[b]Analyzed with linear regression adjusted for age, sex, onset to randomization time, and the NIHSS score just before endovascular thrombectomy.

[c]Indicates as NIHSS score 0-1 or improvement more than 8.

[d]Successful reperfusion at 24 hours was determined by a modified Treatment In Cerebral Infarction score ≥2b using MR angiography or CT angiography at 24 hours.

[e]Malignant cerebral edema refers to a condition characterized by rapid neurological deterioration accompanied by substantial brain swelling in CT or MRI, which often leads to death or poor functional outcomes.

**eTable 5. Imaging Findings**

| | Intensive management (N=155) | Conventional management (N=150) | *P* value |
|---|---|---|---|
| **Occlusion site** | | | |
| ICA | 34 (21.9) | 32 (21.3) | >.999 |
| MCA | 108 (69.7) | 101 (67.3) | .75 |
| ACA | 1 (0.6) | 3 (2.0) | .59 |
| BA | 12 (7.7) | 12 (8.0) | >.999 |
| VA | 4 (2.6) | 3 (2.0) | >.999 |
| PCA | 0 (0.0) | 1 (0.7) | .99 |
| **ASPECTS, median (IQR)** | 9.0 (7.0-10.0) | 9.0 (8.0-10.0) | .34 |
| **ASPECTS category** | | | .51 |
| 0-5 | 10 (6.6) | 7 (4.7) | |
| 6-8 | 56 (36.8) | 49 (32.7) | |
| 9-10 | 86 (56.6) | 94 (62.7) | |
| **Collateral grade**[a] | | | .17 |
| Good collateral (2-3) | 102 (70.8) | 90 (62.5) | |
| Poor collateral (0-1) | 43 (29.2) | 54 (37.5) | |
| **Reocclusion** | 19 (12.3) | 8 (5.3) | .05 |
| **mTICI immediate** | | | .69 |
| 2b | 34 (21.9) | 34 (22.7) | |
| 2c | 18 (11.6) | 22 (14.7) | |
| 3 | 103 (66.5) | 94 (62.7) | |
| **mTICI at 24 hours** | | | .57 |
| 0 | 11 (7.1) | 7 (4.7) | |
| 1 | 1 (0.6) | 0 (0.0) | |
| 2a | 3 (1.9) | 2 (1.3) | |
| 2b | 10 (6.5) | 14 (9.3) | |
| 2c | 0 (0.0) | 2 (1.3) | |
| 3 | 121 (78.1) | 116 (77.3) | |
| **Any intracerebral hemorrhage** | 83 (53.5) | 78 (52.3) | .93 |
| **Hemorrhagic transformation** | | | .95 |
| None | 77 (49.7) | 77 (51.3) | |
| HI1 | 27 (17.4) | 24 (16.0) | |
| HI2 | 17 (11.0) | 19 (12.7) | |
| PH1 | 17 (11.0) | 13 (8.7) | |
| PH2 | 17 (11.0) | 17 (11.3) | |
| **Infarction volumes, median (IQR), ml**[b] | 18.6 (6.7-62.6) | 17.1 (5.4-40.9) | .11 |
| **Infarction volumes, mean (SD), ml**[b] | 60.8 (91.6) | 42.1 (73.9) | .05 |

Abbreviation: ICA, internal carotid artery; MCA, middle cerebral artery; ACA, anterior cerebral artery; BA, basilar artery; PCA, posterior cerebral artery; VA, vertebral artery; ASPECTS, Alberta Stroke Program Early CT Score; mTICI, modified Treatment In Cerebral Infarction score; HI, hemorrhagic infarction; PH, parenchymal hematoma.

[a]Collateral grade was determined using the Tan scale.

[b]Infarction volume was measured primarily using diffusion-weighted image. In cases where diffusion-weighted image was unavailable, fluid-attenuated inversion recovery image or CT scan were used instead.

**eTable 6. Post Hoc Sensitivity Analysis Considering Enrollment Site**

| | Unadjusted OR (95% CI) | Adjusted OR[a] (95% CI) | *P* value |
|---|---|---|---|
| **Primary efficacy outcome** | | | |
| Functional independence at 3 months (mRS score 0-2) | 0.54 (0.41 to 0.72) | 0.56 (0.43 to 0.72) | <.001 |
| **Primary Safety outcome** | | | |
| Symptomatic intracerebral hemorrhage | 1.14 (0.51 to 2.52) | 1.10 (0.48 to 2.53) | .82 |
| Death related to the index stroke within 3 months | 1.49 (0.72 to 3.10) | 1.73 (0.65 to 4.59) | .28 |
| **Secondary outcome** | | | |
| mRS score reduction (shift analysis) | 0.59 (0.45 to 0.78) | 0.65 (0.50 to 0.84) | .001 |
| NIHSS score at 24 hours | 2.00 (0.33 to 3.66) | 1.05 (-0.17 to 2.27)[b] | .09 |
| Excellent recovery of NIHSS score at 24 hours[c] | 0.59 (0.34 to 1.02) | 0.63 (0.35 to 1.12) | .12 |
| Successful reperfusion at 24 hours[d] | 0.65 (0.23 to 1.81) | 0.65 (0.25 to 1.72) | .39 |
| Functional independence at 1 month (mRS score 0-2) | 0.60 (0.44 to 0.81) | 0.65 (0.49 to 0.87) | .003 |
| EQ-5D-3L score | -0.12 (-0.21 to -0.02) | -0.08 (-0.16 to -0.01)[b] | .04 |
| Malignant cerebral edema[e] | 6.16 (1.79 to 21.23) | 8.05 (2.80-23.19) | <.001 |

Abbreviation: EQ-5D-3L, EuroQoL 5-Dimension Self-Report Questionnaire; mRS, modified Rankin Scale; NIHSS, National Institute of Health Stroke Scale; OR, odds ratio.

[a]Adjusted for age, sex, onset to randomization time, and the NIHSS score just before

endovascular thrombectomy.

[b]Analyzed with linear regression adjusted for age, sex, onset to randomization time, and the NIHSS score just before endovascular thrombectomy.

[c]Indicates as NIHSS score 0-1 or improvement more than 8.

[d]Successful reperfusion at 24 hours was determined by a modified Treatment In Cerebral Infarction score ≥2b using MR angiography or CT angiography at 24 hours.

[e]Malignant cerebral edema refers to a condition characterized by rapid neurological deterioration accompanied by substantial brain swelling in CT or MRI, which often leads to death or poor functional outcomes.

**eFigure 1. Prespecified Subgroup Analyses of the Primary Efficacy Outcome in the Primary Analysis Population**

There were no significant interactions observed in any predetermined subgroup with favorable outcomes. The intensive management was associated with unfavorable outcomes across all strata.

| Variable | No. of patients | | Adjusted common odds ratio (95%CI) | P value for Interaction |
|---|---|---|---|---|
| | Intensive | Conventional | | |
| Overall | 155 | 147 | 0.56 (0.33 to 0.96) | |
| Age, y | | | | |
| <65 | 34/155 | 34/150 | 0.61 (0.34 to 1.12) | .71 |
| ≥65 | 121/155 | 116/150 | 0.53 (0.17 to 1.63) | |
| Sex | | | | |
| Female | 63/155 | 60/150 | 0.43 (0.17 to 1.13) | .39 |
| Male | 92/155 | 90/150 | 0.69 (0.36 to 1.33) | |
| Hypertension | | | | |
| Yes | 121/155 | 113/150 | 0.55 (0.29 to 1.02) | .95 |
| No | 34/155 | 37/150 | 0.63 (0.20 to 1.96) | |
| Diabetes | | | | |
| Yes | 65/155 | 65/150 | 0.49 (0.20 to 1.21) | .95 |
| No | 90/155 | 85/150 | 0.55 (0.27 to 1.10) | |
| Atrail fibrillation | | | | |
| Yes | 77/155 | 71/150 | 0.40 (0.16 to 1.00) | .75 |
| No | 78/155 | 79/150 | 0.62 (0.31 to 1.25) | |
| NIHSS score | | | | |
| ≥15 | 67/155 | 58/150 | 0.45 (0.16 to 1.26) | .55 |
| <15 | 88/155 | 92/150 | 0.67 (0.35 to 1.31) | |
| Onset to puncture time, h | | | | |
| ≤6 | 75/155 | 78/150 | 0.57 (0.26 to 1.21) | .76 |
| >6 | 80/155 | 72/150 | 0.52 (0.23 to 1.20) | |
| Occlusion site | | | | |
| ICA | 34/155 | 32/150 | 0.25 (0.07 to 0.90) | NA |
| MCA | 47/155 | 49/150 | 0.59 (0.32 to 1.11) | |
| ASPECTS | | | | |
| ASPECTS 6-8 | 56/152 | 49/150 | 0.58 (0.22 to 1.51) | .99 |
| ASPECTS 9-10 | 86/152 | 94/150 | 0.60 (0.30 to 1.20) | |
| Collateral grade | | | | |
| Good | 102/144 | 90/144 | 0.47 (0.24 to 0.92) | .54 |
| Poor | 42/144 | 54/144 | 0.54 (0.17 to 1.71) | |
| TICI immediate | | | | |
| 2b or 2c | 52/155 | 56/150 | 0.68 (0.28 to 1.68) | .60 |
| 3 | 103/155 | 94/155 | 0.51 (0.26 to 1.00) | |

**eFigure 2. The Restricted Cubic Spline Curve According to the Treatment Group**

Panel A, intensive management exhibited a reverse J-shape correlation between the mean 24-hour SBP and dependent or dead outcome, indicating a significant association between lower the mean 24-hour SBP and worse outcomes. Panel B, the conventional management demonstrated a linear correlation between the mean 24-hour SBP and dependent or dead outcome, suggesting that higher the mean 24-hour BP was associated with worse outcomes.