**Supplemental Figure.**

**Study flow chart.**

**66** patients without information on 90-day mRS

**298** AIS patients in MS group

**739** AIS patientsin DS group

**309** AIS patients in MS group

**473** AIS patients without intravenous thrombolysis

**1048** AIS patients withintravenous thrombolysis

**1521** AIS patients with DS or MS admission mode

**1838** AIS patients treated with MT between December 2012 and December 2016

202 excluded:

195 with posterior circulation occlusion

7 with missing circulation type

**1636** AIS patients with anterior circulation occlusion

115 AIS patients with an admission mode other than DS or MS

**11** patients without information on 90-day mRS

**673** AIS patients in DS group

DS indicates drip and ship; MS, mothership; mRS, modified Rankin Scale; MT, mechanical thrombectomy; AIS, acute ischemic stroke.

# Supplemental Table 1. Characteristics of patients with and without 90-day follow-up

|  |  |  |  |
| --- | --- | --- | --- |
|  | **90-day follow-up** |  |  |
| Characteristics | **No** (excluded patients) | **Yes** (included patients) | P-Value | *ASD* |
| Number of patients | 77 | 971 |  |  |
| Age, yrs, mean (SD) | 67.0 (15.1) | 67.4 (14.8) | 0.85 | 2.3 |
| Men | 37 (48.1) | 442 (45.5) | 0.67 | 5.1 |
| Hypertension | 38 (51.4) | 453 (46.8) | 0.45 | 9.1 |
| Diabetes  | 57 (77.0) | 818 (84.5) | 0.091 | 19.1 |
| Hypercholesterolemia | 60 (82.2) | 682 (70.5) | 0.034 | 27.7 |
| Current smoking | 60 (82.2) | 731 (77.9) | 0.40 | 10.7 |
| Antithrombotic medications | 26 (37.1) | 291 (32.8) | 0.46 | 9.0 |
|  *Antiplatelet drugs* | 23 (32.9) | 235 (26.5) | 0.25 | 13.9 |
| *Anticoagulants* | 4 (5.7) | 68 (7.7) | 0.55 | 7.8 |
| Admission NIHSS, mean (SD) | 15.6 (7.2) | 15.6 (6.5) | 0.99 | 0.08 |
| Admission systolic BP, mean (SD) | 140.6 (21.6) | 148.1 (25.3) | 0.032 | 32.2 |
| Admission diastolic BP, mean (SD) | 80.1 (15.1) | 81.5 (16.7) | 0.55 | 8.8 |
| ASPECTS, median (IQR) | 7 (6 to 8) | 8 (6 to 9) | 0.20 | 16.8 |
| Pre-stroke rankin≥1 | 10 (14.9) | 109 (11.7) | 0.43 | 9.4 |
| Initial Imaging Modality (MRI) | 8 (10.4) | 138 (14.2) | 0.35 | 11.7 |
| Site of occlusion |  |  |  |  |
| M1-MCA | 33 (43.4) | 501 (51.7) | 0.092 | 29.1 |
| M2-MCA | 17 (22.4) | 134 (13.8) |  |  |
| T-car | 9 (11.8) | 163 (16.8) |  |  |
| Tandem | 17 (22.4) | 171 (17.6) |  |  |
| Cardioembolism etiology | 15 (33.3) | 405 (46.9) | 0.076 | 27.9 |
| General anesthesia | 7 (9.1) | 202 (21.7) | 0.009 | 35.4 |
| Onset to groin puncture, minutes, median (IQR) | 261 (213 to 296) | 236 (190 to 285) | 0.008 | 32.3 |
| Onset to imaging | 121 (98 to 140) | 109 (86 to 144) | 0.17 | 15.0 |
| Imaging to IV thrombolysis | 34 (24 to 45) | 35 (24 to 45) | 0.96 | 0.6 |
| IV thrombolysis to puncture | 107 (60 to 126) | 88 (53 to 120) | 0.027 | 0.27 |

Values expressed as numbers (%) unless otherwise indicated.

Abbreviations: ASD : absolute standardized difference, ASPECTS= Alberta stroke program early compute tomography score; BP=blood pressure; ICA=internal carotid artery; IQR=interquartile range; MCA=middle cerebral artery; MRI=magnetic resonance imaging; NIHSS=National Institutes of Health Stroke Scale; SD=standard deviation

**Supplemental table 2. Outcomes according to mothership, drip and ship with time between imaging und puncture <140 min and drip and ship** ≥ **140 minutes for bridging thrombectomy treatment.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Mothership(n=298) | Drip-and-Ship <140 min (n=279) | Drip-and-Ship ≥ 140 min(n=279) |
| Recanalization (mTICI 2b/3) |  |  |
|  n (%) | 218/293 (74.4) | 217/279 (77.8) | 202/275 (73.4) |
|  Unadjusted RR (95%IQR) | 1.00 (ref.) | 1.04 (0.95 to 1.15) | 0.99 (0.90 to 1.09) |
|  Adjusted\* RR (95%IQR) | 1.00 (ref.) | 1.06 (0.96 to 1.17) | 0.99 (0.89 to 1.10) |
| Complete Recanalization (mTICI 3) |  |  |
|  n (%) | 113/293 (38.6) | 104/279 (37.3) | 85/275 (30.9) |
|  Unadjusted RR (95%IQR) | 1.00 (ref.) | 0.97 (0.78 to 1.19) | 0.80 (0.64 to 1.01) |
|  Adjusted\* RR (95%IQR) | 1.00 (ref.) | 0.92 (0.73 to 1.15) | 0.74 (0.58 to 0.95)a |
| Early neurological improvement |  |  |
|  n (%) | 90/284 (31.7) | 85/259 (32.8) | 92/251 (36.7) |
|  Unadjusted RR (95%IQR) | 1.00 (ref.) | 1.04 (0.81 to 1.32) | 1.16 (0.91 to 1.46) |
|  Adjusted\* RR (95%IQR) | 1.00 (ref.) | 0.99 (0.78 to 1.28) | 1.15 (0.90 to 1.48) |
| Favorable outcome |  |  |  |
|  n (%) | 179/298 (60.1) | 153/279 (54.8) | 137/279 (49.1) |
|  Unadjusted RR (95%IQR) | 1.00 (ref.) | 0.91 (0.79 to 1.05) | 0.82 (0.70 to 0.95)a |
|  Adjusted\* RR (95%IQR) | 1.00 (ref.) | 0.92 (0.80 to 1.05) | 0.81 (0.69 to 0.94) a |
| Excellent outcome |  |  |  |
|  n (%) | 135/298 (45.3) | 109/279 (39.1) | 103/279 (36.9) |
|  Unadjusted RR (95%IQR) | 1.00 (ref.) | 0.86 (0.71 to 1.05) | 0.81 (0.67 to 0.99) a |
|  Adjusted\* RR (95%IQR) | 1.00 (ref.) | 0.86 (0.72 to 1.04) | 0.81 (0.66 to 0.99) a |
| 90-day mortality |  |  |  |
|  n (%) | 48/298 (16.1) | 52/279 (18.6) | 49/279 (17.6) |
|  Unadjusted RR (95%IQR) | 1.00 (ref.) | 1.16 (0.81 to 1.65) | 1.09 (0.76 to 1.57) |
|  Adjusted\* RR (95%IQR) | 1.00 (ref.) | 1.28 (0.90 to 1.83) | 1.15 (0.80 to 1.65) |
| Hemorrhagic complications |  |  |  |
|  Any ICH |  |  |  |
|  n (%) | 94/287 (32.7) | 110/263 (41.8) | 108/255 (42.3) |
|  Unadjusted RR (95%IQR) | 1.00 (ref.) | 1.28 (1.03 to 1.59) a | 1.29 (1.04 to 1.61) a |
|  Adjusted\* RR (95%IQR) | 1.00 (ref.) | 1.25 (1.00 to 1.57) a | 1.21 (0.95 to 1.54) |
|  Parenchyma hematoma |  |  |  |
|  n (%) | 28/259 (10.8) | 23/235 (9.8) | 24/224 (10.7) |
|  Unadjusted RR (95%IQR) | 1.00 (ref.) | 0.91 (0.54 to 1.53) | 0.99 (0.59 to 1.66) |
|  Adjusted\* RR (95%IQR) | 1.00 (ref.) | 0.88 (0.50 to 1.54) | 0.97 (0.56 to 1.69) |
| sICH |  |  |  |
|  n (%) | 17/287 (5.9) | 15/263 (5.7) | 24/255 (6.4) |
|  Unadjusted RR (95%IQR) | 1.00 (ref.) | 0.96 (0.49 to 1.89) | 1.59 (0.87 to 2.89) |
|  Adjusted\* RR (95%IQR) | 1.00 (ref.) | 0.99 (0.44 to 2.23) | 1.88 (0.93 to 3.80) |
| Procedural complications  |  |  |  |
|  n (%) | 73/279 (26.2) | 67/256 (26.2) | 60/248 (24.2) |
|  Unadjusted RR (95%IQR) | 1.00 (ref.) | 1.00 (0.75 to 1.33) | 0.92 (0.69 to 1.24) |
|  Adjusted\* RR (95%IQR) | 1.00 (ref.) | 0.92 (0.69 to 1.24) | 0.90 (0.66 to 1.23) |

Data are numbers (%) and RR indicates relative risk calculated using Mothership as reference group. Favorable outcome defined as a 90-day mRS ≤ 2 and excellent as a 90-day mRS ≤ 1. Early neurological improvement defined as NIHSS score 0–1 at 24 h or a decrease of 4 or more points in NIHSS score at 24 h.

a significant p-value.

\* adjusted on age, admission NIHSS, site of occlusion type (Tandem vs carotid terminus vs. M1-MCA vs. M2-MCA), ASPECTS, hypercholesterolemia, antithrombotic medication use and smoking status using a multivariable robust Poisson regression model.

Abbreviations: ASPECTS = Alberta stroke program early compute tomography score; CI = confidence interval; ICH = intracranial hemorrhage; ICA = internal carotid artery; MCA = middle cerebral artery; mRS =modified Rankin scale; mTICI = modified Treatment in Cerebral Infarction. NIHSS = National Institutes of Health Stroke Scale; sICH = symptomatic intracranial hemorrhage.