**Supplemental Table 1.** Baseline characteristics of patients according to modified Rankin scale (mRS)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | < 60 years | 60–69 years | 70–79 years | > 80 years |
|  | mRS 3–6n = 10 | mRS 0–2n = 59 | P-value | mRS 3–6n = 25 | mRS 0-2n = 55 | P-value | mRS 3–6n = 33 | mRS 0–2n = 68 | P-value | mRS 3-6n = 53 | mRS 0-2n = 49 | P-value |
|  Age [years] | 53 (48–57) | 51 (41–56) | 0.422 | 67 (64–68) | 65 (63–68) | 0.586 | 74 (72–78) | 75 (72–77) | 1.000 | 84 (82-86) | 84 (83-87) | 0.571 |
|  Women, n [%] | 2 (20.00) | 16 (27.12) | 0.634 | 14 (56.00) | 16 (29.09) | 0.021 | 17 (51.52) | 33 (48.53) | 0.778 | 39 (73.58) | 36 (73.47) | 0.989 |
|  BMI [kg/m2] | 26.4 (24.9–31.1) | 27.3 (23.7–29.5) | 0.676 | 27.7 (25.1–33.5) | 26.2 (23.8–30.5) | 0.110 | 26.7 (25.0–29.4) | 26.7(24.5–29.4) | 0.868 | 26.8 (23.4-29.8) | 26.1 (23.9-27.8) | 0.494 |
|  Hypertension, n [%] | 9 (90.00) | 32 (54.24) | 0.033 | 23 (92.00) | 45 (81.82) | 0.322 | 32 (96.97) | 57 (83.82) | 0.097 | 51 (96.23 | 45 (91.84) | 0.423 |
|  Ischemic heart disease, n [%] | 0 (0.00) | 5 (8.47) | 0.339 | 8 (32.00) | 9 (16.36) | 0.113 | 11 (33.33) | 20 (29.41) | 0.688 | 14 (26.42) | 15 (30.61) | 0.638 |
|  Atrial fibrillation, n [%] | 1 (10.00) | 2 (3.39) | 0.343 | 6 (24.00) | 13 (23.64) | 0.971 | 11 (33.33) | 19 (27.94) | 0.578 | 27 (50.94) | 24 (48.98) | 0.843 |
|  Diabetes, n [%] | 3 (30.00) | 9 (15.25) | 0.255 | 7 (28.00) | 18 (32.73) | 0.672 | 14 (42.42) | 20 (29.41) | 0.194 | 17 (32.08) | 15 (30.61) | 0.873 |
|  Hipercholesterolemia, n [%] | 3 (30.00) | 22 (37.29) | 0.658 | 4 (16.0) | 18 (32.73) | 0.120 | 13 (39.39) | 22 (32.35) | 0.486 | 11 (20.75) | 17 (34.69) | 0.115 |
|  Smoking, n [%] - active  - in the past  | 2 (22.22)4 (44.44) | 14 (23.73)15 (25.42) | 0.469 | 2 (8.00)6 (24.00) | 10 (18.52)19 (35.19) | 0.179 | 4 (12.90)4 (12.90) | 12 (17.65)6 (8.82) | 0.723 | 7 (15.22)0 (0.00) | 6 (12.24)0 (0.00) | 0.673 |
|  Previous stroke, n [%] | 1 (10.00) | 7 (11.86) | 0.864 | 4 (16.00) | 3 (5.45) | 0.196 | 8 (24.24) | 11 (16.18) | 0.331 | 15 (28.30) | 14 (28.57) | 0.975 |
| Pre-stroke mRS  -0 -1–2 -3–5 | 10 (100.00)0 (0.00)0 (0.00) | 58 (98.31)1 (1.69)0 (0.00) | 1.000 | 25 (10.00)0 (0.00)0 (0.00) | 52 (94.55)2 (3.64)1 (1.82) | 0.492 | 28 (84.85)2 (6.06)3 (9.09) | 65 (95.59)2 (2.94)1 (1.47) | 0.129 | 38 (71.70)11 (20.75)4 (7.55) | 45 (91.84)4 (8.16)0 (0.00) | 0.009 |
| Pre-stroke mRS score ≥ 1 | 0 (0.00) | 1 (1.69) | 1.000 | 0 (0.00) | 3 (5.45) | 0.548 | 5 (15.15) | 3 (4.41) | 0.110 | 15 (28.30) | 4 (8.16) | 0.010 |
|  Stroke etiology, n [%] - large-vessel disease  - small-vessel disease - cardioembolic  - other  - undetermined  | 2 (20.00)0 (0.001 (10.00)2 (20.00)5 (50.00) | 5 (8.47)1 (1.69)11 (18.64)9 (15.25)33 (55.93) | 0.2640.6780.5040.7040.727 | 3 (12.0)0 (0.00)8 (32.00)1 (4.00)13 (52.00) | 6 (10.91)1 (1.82)15 (27.27)1 (1.82)32 (58.18) |  1.0001.0000.6650.5300.605 | 5 (15.15)0 (0.00)12 (26.36)1 (3.0-3)15 (45.45) | 18 (26.47)0 (0.00)18 (26.47)1 (1.47)31 (45.59) |  0.2031.0000.3070.5490.989 | 4 (7.55)0 (0.00)27 (50.94)1 (1.89)21 (39.62) | 4 (8.16)1 (2.00)25 (51.02)1 (2.00)18 (36.73) |  1.0000.4800.9931.0000.764 |
|  Time from stroke onset to thrombolysis [min] | 143 (120–188) | 140 (110–187) | 0.811 | 90 (72–170) | 120 (81–155) | 0.383 | 155 (125–205) | 144 (99–195) | 0.272 | 124 (95–178) | 121 (90–187) | 0.957 |
|  Mechanical thrombectomy, n [%] | 9 (90.00) | 23 (38.98) | 0.028 | 15 (60.00) | 16 (29.09) | 0.008 | 6 (18.18) | 17 (25.00) | 0.443 | 13 (24.53) | 6 (12.24) | 0.111 |
|  NIHSS score on admission | 19 (18–20) | 9 (5–16) | 0.005 | 18 (14–21) | 10 (4–16) | < 0.001 | 18 (14–20) | 8 (5–14) | < 0.001 | 16 (14–20) | 7 (5–12) | < 0.001 |
|  NIHSS score after r-tPA  | 19 (15–19) | 4 (2–8) | < 0.001 | 17 (12–20) | 3 (1–7) | < 0.001 | 18 (14–21) | 3 (1–6) | < 0.001 | 15 (8–18) | 2 (1–6) | < 0.001 |
| Post-r-tPA hemorrhagic brain complications, n [%]- no complication- HI type 1- HI type 2- PH type 1- PH type 2 | 3 (30.00)2 (20.00)2 (20.00)1 (10.00)2 (20.00) | 51 (85.44)2 (3.39)4 (6.78)2 (3.39)0 (0.00) |  < 0.0010.1780.4440.379 0.019 | 12 (48.00)1 (4.00)7 (28.00)3 (12.00)2 (8.00) | 48 (87.27)5 (9.09)1 (1.82)1 (1.82)0 (0.00) |  < 0.0010.6600.0010.0880.094 | 22 (66.67)2 (6.06)3 (9.09)2 (6.06)4 (12.12) | 64 (94.12)2 (2.94)1 (1.47)1 (1.47)0 (0.00) |  0.0030.5940.1010.2480.010 | 34 (64.15)9 (16.98)3 (5.66)3 (5.66)4 (7.55) | 45 (91.84)1 (2.00)2 (4.08)1 (2.00)0 (0.00) | <0.0010.0111.0000.6180.119 |
|  Maximal SBP within 24 hours after r-tPA [mmHg] | 138 (123–143) | 135 (120–146) | 0.884 | 143 (140–159) | 145 (120–160) | 0.304 | 143 (130–156) | 147 (140–160) | 0.402 | 160 (140–170) | 149 (140-173) | 0.537 |
|  Maximal DBP within 24 hours after r-tPA [mmHg] | 80 (78–90) | 80 (72–88) | 0.473 | 80 (80–90) | 80 (70–85) | 0.447 | 80 (70–94) | 80 (73–86) | 0.632 | 80 (72–90) | 80 (70–85) | 0.026 |
|  Fasting glucose < 5.5 mmol/L | 1 (10.00) | 22 (37.29) | 0.091 | 6 (24.00) | 11 (20.00) | 0.685 | 5 (15.15) | 22 (32.35) | 0.067 | 5 (9.43) | 13 (26.53) | 0.023 |
|  CRP [mg/L] | 9.3 (7.2–14.0) | 4.0 (1.5–7.7) | 0.018 | 23.2 (7.9–29.3) | 5.6 (2.2–11.1) | < 0.001 | 19.0 (5.8–125.9) | 6.0 (3.1–17.4) | 0.001 | 27.2 (9.1–84.1) | 4.3 (2.1–10.3) | < 0.001 |
|  Creatinine [µmol/L] | 73 (68–90) | 78 (67–86) | 0.891 | 77 (65–97) | 83 (67–96) | 0.815 | 81 (74–101) | 77 (68–99) | 0.111 | 87 (65–108) | 87 (72–107) | 0.402 |
|  Death [mRS=6] | 4 (40.00) | x | x | 9 (36.00) | x | x | 14 (42.42) | x | x | 27 (50.94) | x | x |

Values are presented as n (%), median and interquartile range. BMI ― body mass index; CRP ― C-reactive protein; DBP ― diastolic blood pressure; HI — hemorrhagic infarction; mRS ― modified Rankin scale; MT ― mechanical thrombectomy; NIHSS — National Institutes of Health Stroke Scale; PH — parenchymal hematoma; r-tPA — recombinant tissue plasminogen activator; SBP — systolic blood pressure

**Supplemental Table 2.** Prognosis according to the pre-stroke modified Rankin scale (mRS) score

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Pre-stroke mRS | mRS 0–2at day 90 | P-value | Deathat day 90 | P-value |
| 0 | 220 (68.53) | < 0.001 | 42 (13.08) | < 0.001 |
| 1–2 | 9 (40.90) |  | 10 (45.45) |  |
| 3–5 | 2 (22.22) |  | 2 (22.22) |  |

**Supplemental Table 3.** Baseline characteristics of patients undergoing intravenous thrombolysis with subsequent mechanical thrombectomy according to age categories

|  |  |  |
| --- | --- | --- |
|  | Age (years) |  |
|  | < 60 yearsN = 33 (30.56%) | 60–69N = 31 (28.70%) | 70 - 79N = 24 (22.22%) | > 80N = 20 (18.51%)  | P-value |
|  Age [years] | 51 (42–55) | 65 (63–68) | 74 (71–77) | 83 (81–86) | x |
|  Women, n [%]  | 7 (21.21) | 12 (38.71) | 14 (58.33)\* | 18 (90.00)\*† | < 0.001 |
|  BMI [kg/m2] | 27.7 (24.6–29.4) | 27.7 (24.8–33.5) | 26.9 (24.2–29.7) | 27.7 (23.6–29.9) | 0.810 |
|  Hypertension, n [%] | 21 (63.64) | 27 (87.10) | 22 (91.67) | 20 (100.00)\* | 0.021 |
|  Ischemic heart disease, n [%] | 3 (9.09) | 6 (19.35) | 7 (29.17) | 4 (20.00) | 0.285 |
|  Atrial fibrillation, n [%] | 2 (6.06) | 8 (25.81) | 15 (62.50)\*† | 10 (50.00) | < 0.001 |
|  Diabetes, n [%] | 7 (21.21) | 12 (38.71) | 9 (37.50) | 6 (30.00) | 0.425 |
|  Hipercholesterolemia, n [%] | 9 (27.27) | 5 (16.13) | 5 (20.83) | 2 (10.0)\* | 0.444 |
|  Smoking, n [%] - active  - in the past  | 9 (28.13)6 (18.75) | 7 (22.58)2 (6.45) | 2 (8.70)2 (8.70) | 0 (0.00)3 (15.00) | 0.063 |
|  Previous stroke, n [%] | 2 (6.06) | 2 (6.45) | 3 (12.50) | 4 (20.00) | 0.343 |
|  Stroke etiology, n [%] - large-vessel disease  - small-vessel disease - cardioembolic  - other  - undetermined  | 3 (9.09)0 (0.00)6 (18.18)8 (24.24)16 (48.48) | 5 (16.13)0 (0.00)7 (22.58)2 (6.45)17 (54.84) | 5 (20.83)0 (0.00)15 (62.50)\*†0 (0.00)4 (16.67)† | 1 (5.00)0 (0.00)11 (55.00)\*0 (0.00)8 (40.00) | 0.3681.000< 0.0010.0350.029 |
|  Time from stroke onset to thrombolysis [min] | 143 (114–145) | 85 (70–143)\* | 121 (96–143) | 102 (73–129)\* | 0.012 |
|  NIHSS score on admission | 17 (11-19) | 18 (14–20) | 15 (12–18) | 16 (13–20) | 0.271 |
|  NIHSS score after r-tPA  | 9 (4-16) | 11 (6–18) | 11 (4–14) | 13 (4–18) | 0.437 |
| Post-MT hemorrhagic brain complications, n [%]-any hemorrhagic brain complication- HI type 1- HI type 2- PH type 1- PH type 2 | 14 (42.42)4 (12.12)5 (15.15)3 (9.09)2 (6.06) | 14 (45.16)4 (12.90)7 (22.58)2 (6.45)1 (3.23) | 6 (25.00)2 (8.33)1 (4.17)2 (8.33)1 (4.17) | 7 (35.00)2 (10.00)2 (10.00)1 (5.00)2 (10.00) | 0.4320.9510.2450.9450.758 |
|  Fasting glucose < 5.5 mmol/L | 12 (36.36) | 4 (12.90) | 7 (29.17) | 2 (10.53) | 0.058 |
|  CRP [mg/L] | 7.2 (2.6–11.0) | 11.1 (3.9–27.9) | 15.0 (4.0–27.3) | 11.4 (5.7–26.2) | 0.237 |
|  Maximal SBP within 24 hours after r-tPA [mmHg] | 140 (126–144) | 143 (140–160) | 144 (138–159) | 154 (140–169) | 0.045 |
|  Maximal DBP within 24 hours after r-tPA [mmHg] | 80 (77–90) | 80 (70–90) | 80 (75–90) | 80 (70–89) | 0.872 |
|  Creatinine (µmol/L) | 75 (69–88) | 82 (74–98) | 74 (70–83) | 92 (75–110) | 0.088 |
|  Pre-stroke mRS score -0 -1–2 -3–5 | 33 (100.00)0 (0.00)0 (0.00) | 30 (96.77)0 (0.00)1 (3.23) | 23 (95.83)0 (0.00)1 (4.17) | 16 (80.00)2 (10.00)2 (10.00) | 0.047 |
|  Pre-stroke mRS ≥ 1 | 0 (0.0) | 1 (3.23) | 1 (4.17) | 4 (20.00) | 0.017 |
|  mRS 0–1 90 days | 20 (62.50) | 14 (45.16) | 14 (60.87) | 2 (10.53)\*‡ | 0.002 |
|  mRS 0–2 90 days | 23 (71.88) | 16 (51.61) | 17 (73.91) | 6 (31.58)\* | 0.012 |
|  Death (mRS = 6) | 3 (9.38) | 6 (19.35) | 4 (17.39) | 6 (31.58) | 0.260 |

For abbreviations, see Suppl. Table 1.

**Supplemental Table 4.** Baseline characteristics of patients undergoing intravenous thrombolysis with subsequent mechanical thrombectomy according to modified Rankin scale (mRS)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | < 60 years | 60–69 years | 70–79 years | > 80 years |
|  | mRS 3–6n = 9 | mRS 0–2n = 23 | P-value | mRS 3–6n = 15 | mRS 0–2n = 16 | P-value | mRS 3–6n = 6 | mRS 0–2n = 17 | P-value | mRS 3–6n = 13 | mRS 0–2n = 6 | P - value |
|  Age [years] | 55 (50–57) | 50 (39–54) | 0.106 | 66 (63–68) | 65 (63–67) | 0.904 | 74 (73–77) | 74 (71–787) | 0.944 | 82 (81–83) | 86 (83–89) | 0.101 |
|  Women, n [%] | 2 (22.22) | 5 (21.74) | 1.000 | 9 (60.00) | 3 (18.75) | 0.029 | 4 (66.67) | 9 (52.94) | 0.660 | 12 (92.31) | 6 (10.00) | 1.000 |
|  BMI [kg/m2] | 27.6 (24.9–31.1) | 27.7 (24.2–29.4) | 0.614 | 27.7 (24.8–33.5) | 27.0 (24.7–32.0) | 0.797 | 29.2 (28.7–29.4) | 25.7 (23.9–27.7) | 0.086 | 27.6 (23.4–30.5) | 28.3 (26.0–29.3) | 0.539 |
|  Hypertension, n [%] | 8 (88.89) | 12 (52.17) | 0.103 | 13 (86.67) | 14 (87.50) | 1.000 | 6 (100.00) | 15 (88.24) | 1.000 | 13 (100.00) | 6 (100.00) | 1.000 |
|  Ischemic heart disease, n [%] | 0 (0.00) | 3 (13.04) | 0.541 | 3 (20.00) | 3 (18.75) | 1.000 | 2 (33.33) | 5 (29.41) | 1.000 | 3 (23.08) | 1 (16.67) | 1.000 |
|  Atrial fibrillation, n [%] | 1 (11.110 | 0 (0.00) | 0.281 | 3 (20.00) | 5 (31.25) | 0.685 | 3 (50.00) | 11 (64.71) | 0.643 | 5 (38.46) | 5 (83.33) | 0.141 |
|  Diabetes, n [%] | 3 (33.33) | 4 (17.39) | 0.371 | 5 (33.33) | 7 (43.75) | 0.716 | 4 (66.67) | 4 (23.63) | 0.131 | 4 (30.77) | 2 (33.33) | 1.000 |
|  Hipercholesterolemia, n [%] | 2 (22.22) | 7 (30.43) | 1.000 | 2 (13.33) | 3 (18.75) | 1.000 | 2(33.33) | 3 917.65) | 0.575 | 1 (7.69) | 0 (0.00) | 1.000 |
|  Smoking, n [%] - active  - in the past  | 3 (37.50)2 (25.00) | 4 (17.39)6 (26.09) | 0.651 | 3 (20.00)1 (6.67) | 4 (25.00)1 (6.25) | 0.946 | 0 (0.00)1 (20.00) | 2 (11.76)1 (5.88) | 0.487 | 0 (0.00)3 (23.08) | 0 (0.00)0 (0.00) | 1.000 |
|  Previous stroke, n [%] | 0 (0.00) | 2 (8.70) | 1.000 | 1 (6.67) | 1 (6.25) | 1.000 | 2 (33.33) | 1 (5.88) | 0.155 | 3 (23.08) | 0 (0.00) | 0.517 |
| Pre-stroke mRS  -0 -1–2 -3–5 | 9 (100.00)0 (0.00) 0 (0.00) | 23 (100.00)0 (0.00) 0 (0.00) | 1.000 | 15 (100.00)0 (0.00)0 (0.00) | 15 (3.75)1 (6.25)0 (0.00) | 1.000 | 5 (83.33)0 (0.00)1 (16.67) | 17 (100.00)0 (0.00) | 0.261 | 9 (69.23)2 (15.38)2 (15.38) | 6 (100.00)0 (0.00)0 (0.00) | 0.311 |
| Pre-stroke mRS score ≥ 1 | 0 (0.00) | 0 (0.00) | 1.000 | 0 (0.00) | 1 (6.25) | 1.000 | 1 (16.67) | 0 (0.00) | 0.261 | 4 (30.77) | 0 (0.00) | 0.255 |
|  Stroke etiology, n [%] - large-vessel disease  - small-vessel disease - cardioembolic  - other  - undetermined  | 2 (22.22)0 (0.00)1 (11.11)2 (22.22)4 (44.44) | 1 (4.35)0 (0.00)5 (21.74)6 (26.09)11 (47.83) | 0.449 | 3 (20.00)0 (0.00)3 (20.00)1 (6.67)8 (53.33) | 2 (12.50)0 (0.00)3 (25.00)1 (6.25)9 (56.25) | 0.946 | 1 (16.67)0 (0.00)3 (50.00)0 (0.00)2 (33.33) | 4 (23.5300 (0.00)11 (64.71)0 (0.00)2 (11.76) | 0.486 | 1 (7.69)0 (0.00)6 (46.15)0 (0.00)6 (46.15) | 0 (0.00)0 (0.00)5 (83.33)0 (0.00)1 (16.67) | 0.299 |
|  Time from stroke onset to thrombolysis [min] | 143 (120–188) | 143 (105–143 | 0.235 | 83 (63–143) | 86 (72–127) | 0.797 | 139 (125–170) | 100 (90–143) | 0.054 | 105 (82–120\_ | 70 (62–121) | 0.273 |
|  NIHSS score on admission | 19 (18–20) | 16 (10–18) | 0.015 | 18 (16–20) | 18 (14–20) | 0.645 | 19 (13–21) | 14 (11–18) | 0.183 | 16 (15–20) | 16 (12–22) | 0.792 |
|  NIHSS score after r-tPA  | 19 (16–19) | 6 (3–11) | < 0.001 | 18 (14–21) | 7 (3–11) | < 0.001 | 20 (14–278) | 5 (3–11) | 0.001 | 15 (8–19) | 4 (2–10) | 0.018 |
| Post-MT hemorrhagic brain complications, n [%]- no complication- HI type 1- HI type 2- PH type 1- PH type 2 | 2 (22.22)2 (22.22)2 (22.22)1 (11.11)2 (22.22) | 17 (73.91)1 (4.35)3 (13.04)2 (8.70)0 (0.00) | 0.031 | 6 (40.00)1 (6.67)6 (40.00)1 (6.67)1 (6.67) | 11 (68.75)3 (18.75)1 96.26)1 (6.25)0 (0.00) | 0.134 | 2 (33.33)1 (16.67)1 (16.67)1 (16.67)1 (16.67) | 15 (88.24)1 (5.88)0 (0.00)1 (5.88)0 (0.00) | 0.073 | 6 (46.15)2 (15.38)2 (15.38)1 (7.69)2 (15.38) | 6 (100.00)0 (0.00)0 (0.00)0 (0.00)0 (0.00) | 0.276 |
|  Maximal SBP within 24 hours after r-tPA [mmHg] | 140 (130–143) | 138 (120–144) | 0.817 | 143 (143–174) | 147 (122–157) | 0.211 | 154 (143–165) | 143 (136–157) | 0.361 | 148 (132–170) | 150 (110–166) | 0.538 |
|  Maximal DBP within 24 hours after r-tPA [mmHg] | 80 (80–90) | 80 (71–91) | 0.351 | 80 (80–100) | 78 (68–85) | 0.131 | 79 (77–80) | 80 (75–90) | 0.697 | 80 (80–88) | 70 (70–70) | 0.117 |
|  Fasting glucose < 5.5 mmol/L | 1 (11.11) | 11 (47.83) | 0.103 | 4 926.670 | 3 (18.75) | 0.685 | 0 (0.00) | 7 (41.18) | 0.124 | 3 (23.8) | 1 (16.67) | 1.000 |
|  CRP [mg/L] | 9.3 (7.2–14.0) | 5.4 (1.89–9.8) | 0.142 | 20.0 (4.4–79.3) | 7.4 (2.9–17.1) | 0.051 | 38.8 (8.9–137.2) | 12.6 (3.2–28.0) | 0.100 | 15.4 (7.1–27.4) | 10.1 (4.2–25.1) | 0.511 |
|  Creatinine [µmol/L] | 71 (68–89) | 78 (70–88) | 0.501 | 77 (65–98) | 87 (75–99) | 0.452 | 77 (73–78) | 74 (71–85) | 0.889 | 91 (74–102) | 88 (76–117) | 1.000 |
|  Death (mRS = 6) | 3 (33.33) | x | x | 6 (40.00) | x | x | 4 (66.67) | x | x | 6 (46.15) | x | x |

**Supplemental Figure 1.** The proportion of patients with favorable outcome (modified Rankin scale [mRS] 0–2), poor outcome (mRS 3–5) and those who died (mRS = 6) 3 months after stroke onset according to age categories in the subgroup of patients treated with IVT and subsequent MT

**Supplemental Figure 2.** The odds ratios for modified Rankin scale 3-6 3 months after stroke onset in the studied age categories in the subgroup of patients treated with IVT and subsequent MT****