### Supplemental table 1. Patient characteristics

| Characteristic, n (%) | Total n=683 | No ME n=643 | ME n=40 | P value* |
|----------------------|-------------|-------------|---------|----------|
| Age, mean±SD         | 68±14       | 69±14       | 62±13   | 0.004    |
| Male sex             | 372 (54)    | 347 (54)    | 25 (62) | 0.293    |
| Pre-stroke mRS, median (Q1-Q3) | 0 (0-1)     | 0 (0-1)     | 0 (0-0) | 0.010    |
| Current smoking      | 156 (23)    | 149 (23)    | 7 (17)  | 0.268    |
| Admission NIHSS, median (Q1-Q3) | 15 (11-20)  | 15 (11-19)  | 20 (16-22) | <0.001  |
| Intravenous thrombolysis | 539 (79)   | 506 (79)    | 33 (82) | 0.579    |
| **Medical history, n (%)** |           |             |         |          |
| Hypertension         | 333 (49)    | 319 (50)    | 14 (36) | 0.080    |
| Diabetes mellitus    | 112 (17)    | 104 (16)    | 8 (20)  | 0.544    |
| Hyperlipidemia       | 185 (28)    | 175 (28)    | 10 (26) | 0.754    |
| Ischemic stroke      | 102 (15)    | 100 (16)    | 2 (5)   | 0.083    |
| Myocardial infarction| 110 (16)    | 105 (17)    | 5 (13)  | 0.527    |
| Atrial fibrillation  | 135 (20)    | 131 (21)    | 4 (10)  | 0.113    |
| Peripheral arterial disease | 50 (7)   | 50 (8)      | 0 (0)   | 0.071    |
| **Drug use, n (%)**  |             |             |         |          |
| Antiplatelet         | 231 (34)    | 217 (34)    | 14 (35) | 0.920    |
| Coumarin             | 78 (12)     | 77 (12)     | 1 (2)   | 0.066    |
| DOAC                 | 15 (2)      | 14 (2)      | 1 (2)   | 0.902    |
| Statin               | 231 (35)    | 221 (35)    | 10 (25) | 0.189    |
| **Imaging findings, n (%)** |         |             |         |          |
| Occlusion site on CTA|             |             |         | <0.001   |
| - Internal carotid artery | 171 (25)   | 149 (23)    | 22 (55) |          |
| - M1 segment of the MCA | 392 (59)   | 376 (60)    | 16 (40) |          |
| - M2 segment of the MCA | 90 (14)    | 88 (14)     | 2 (5)   |          |
| - Other              | 10 (2)      | 10 (2)      | 0 (0)   |          |
| ASPECTS, median (Q1-Q3) | 9 (7-10)  | 9 (7-10)    | 6 (5-9) | <0.001   |
| Poor collateral score| 276 (40)    | 245 (38)    | 31 (78) | <0.001   |
| CSF volume, mL, mean±SD | 171±78     | 174±77     | 112±61  | <0.001   |
| ICV, mL, mean±SD     | 1271±146    | 1274±146   | 1223±142 | 0.037   |
| CSF/ICV percentage, mean±SD | 13±6       | 14±6       | 9±5     | <0.001   |
| **Endovascular treatment, n (%)** |     |             |         |          |
| Time from onset to groin, minutes, mean±SD | 209±73   | 208±73     | 230±70  | 0.058    |
| Duration of procedure, minutes, mean±SD | 66±35    | 65±34      | 87±41  | 0.002    |
| General anesthesia   | 249 (40)    | 228 (39)    | 21 (58) | 0.020    |
| eTICI 2B50-3         | 405 (60)    | 387 (61)    | 18 (46) | 0.065    |
| **Follow-up, n (%)** |             |             |         |          |
| Decompressive surgery| 15 (2)      | 1 (0)       | 14 (35) | <0.001   |
| mRS at 90 days, median (Q1-Q3) | 3 (2-6)   | 3 (2-5)    | 6 (4-6) | <0.001   |

* Either parametric or non-parametric tests were performed depending on the variable distribution.

ME indicates malignant edema; SD, standard deviation; mRS, modified Rankin Scale; Q1, first quartile; Q3, third quartile; NIHSS, National Institutes of Health Stroke Scale; CTA, computed tomography angiography; MCA, middle cerebral artery; ASPECTS: Alberta Stroke Program Early CT Score; NCCT: non-contrast computed tomography; CSF: cerebrospinal fluid; mL, milliliter; ICV, intracranial volume; eTICI, expanded thrombolysis in cerebral infarction.