**Supplemental** **Table 1:** Baseline characteristics.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **BEMP** | **Standard techniques** | | **p-Value** |
|  | N = 22 patients  N = 25 vessels | N = 137 patients  N = 144 vessels | |  |
| Baseline characteristics |  | |  |  |
| Age | 67 [59-76] | | 66 [55-74] | 0.55 |
| Sex, female | 6(27%) | | 60 (44%) | 0.11 |
| Hypertension | 15(68%) | | 91(66%) | 0.94 |
| Dyslipidemia | 6 (27%) | | 36 (26%) | 1.00 |
| Atrial Fibrillation | 10 (45%) | | 41 (30%) | 0.18 |
| Diabetes | 7 (32%) | | 34 (25%) | 0.50 |
| Intravenous Alteplase | 5(23%) | | 57 (41%) | 0.09 |
| Systolic Blood Pressure (mmHg) | 161 [134-181] | | 157 [130-180] | 0.63 |
| NIHSS | 17[9-23] | | 16 [11-22] | 0.76 |
| NCCT ASPECTS | 8[6-10] | | 9 [7-10] | 0.18 |
| Last-normal to Puncture (hrs) | 7.7[3.1-11.1] | | 6.5 [3.8-12.1] | 0.80 |
| Tandem Occlusions | 1(5%) | | 8 (6%) | 0.81 |
| Type of Presentation (by vessel) |  | |  |  |
| Isolated Distal Occlusion | 11(44%) | | 59 (41%) | 0.82 |
| Distal Plus Other Larger Occlusion | 7(28%) | | 15 (10%) | **0.02** |
| Emboli to New Territory | 1(4%) | | 10 (7%) | 0.58 |
| Emboli to Same Territory | 6 (25%) | | 60 (41%) | 0.10 |

Legend: NIHSS: National Institutes of Health Stroke Scale; CBF: cerebral blood flow; NCCT: non-contrast CT; ASPECTS: Alberta Stroke Program Early CT Score.

\*25 vessels were treated in 22 patients in the mini pin group and 144 vessels in 137 patients in the 3MAX or Trevo group.

**Supplemental** **Table 2:** Distal Occlusion Site Characteristics by Vessel

|  |  |  |  |
| --- | --- | --- | --- |
|  | **BEMP** | **Standard techniques** | **p-Value** |
|  | n=25 | n=144 |  |
| Distal Occlusion Site |  |  |  |
| MCA | 22(88%) | 108 (75%) | 0.15 |
| ACA | 3(12%) | 26 (18%) | 0.46 |
| PCA | 0 | 10 (7%) | 0.17 |
| MCA Segments |  |  |  |
| Proximal/Mid M2 | 3(14%) | 29 (27%) | 0.19 |
| Distal M2 | 8(36%) | 50 (46%) | 0.39 |
| M3 | 11(50%) | 29 (27%) | **0.03** |
| MCA Divisions |  |  |  |
| Inferior Division | 11(50%) | 69 (64%) | 0.22 |
| Superior Division | 11(50%) | 36 (33%) | 0.14 |
| Middle Division | 0 | 3 (3%) | 0.47 |
| ACA Segments |  |  |  |
| ACA A1 | 0 | 1 (4%) | 0.68 |
| ACA A2 | 1(33%) | 11 (42%) | 0.51 |
| ACA A3 | 2(66%) | 14 (54%) | 0.79 |
| Distal Occlusion Size |  |  |  |
| Vessel Diameter (Pre Clot) mm | 1.5[1.4-1.7] | 1.5 [1.4-1.8] | 0.76 |
| Vessel Diameter (Post Clot) mm | 1.3[1-1.5] | 1.2 [1.0-1.4] | 0.73 |

Legend: MCA: middle cerebral artery; ACA: anterior cerebral artery; PCA: posterior cerebral artery; P2+: PCA P2 segment or distal.

**Supplemental** **Table 3:** Procedural, Radiological and Clinical Outcomes.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **BEMP** | **Standard Techniques** | **p-Value** |
|  | N=25 | n=144 |  |
| Procedure |  |  |  |
| Balloon Guide Catheter | 23(92%) | 134 (93%) | 0.99 |
| Procedural Outcomes |  |  |  |
| Number of Passes (primary device) | 1[1-1] | 1 [1-2] | 0.17 |
| First-Pass mTICI2b-3 | 20(80%) | 81 (56%) | **0.03** |
| First-Pass mTICI3 | 15(60%) | 58 (40%) | 0.07 |
| Final mTICI2b-3 | 21(84%) | 114 (79%) | 0.58 |
| Final mTICI3 | 16(64%) | 78 (54%) | 0.36 |
| Imaging Outcomes |  |  |  |
| Parenchymal Hematoma | 0 (0%) | 7 (5%) | 0.26 |
| Subarachnoid Hemorrhage | 3(12%) | 9 (6%) | 0.30 |
| Arterial Spasm | 11(44%) | 52 (36%) | 0.60 |
| Clinical Outcomes |  |  |  |
| Good Outcome | 10/19(40%) | 56/123 (45%) | 0.83 |
| Mortality | 4/19 (21%) | 26/124 (21%) | 1.00 |

Legend: mTICI: modified TICI score

\*Mini-pin technique used as first line technique in 15 of 25 and as adjunct treatment in 10.