

**Comparative analysis of the ABC/2 score and e-ASPECTS software in the determination of acute ischaemic stroke volume from non-contrast CT**

*Supplementary Materials*

Supplementary Table S1. Baseline clinical characteristics of patient cohort.

Supplementary Table S2. Infarct volume measured from CT on admission and at 24 h in patients with large vessel occlusion (LVO) using the ABC/2 method and e-ASPECTS.

Supplementary Table S3. Lin's concordance correlation coefficient for CTs performed on admission and at 24 h in patients with large vessel occlusion (LVO) using the ABC/2 formula and e-ASPECTS.

**Supplementary Table S1.** Baseline clinical characteristics of patient cohort.

| Characteristics                                     | Stroke Cohort ( <i>n</i> = 33) |
|-----------------------------------------------------|--------------------------------|
| <b>Age (years), mean <math>\pm</math> SD</b>        | 75 $\pm$ 10.8                  |
| <b>Female sex, n, (%)</b>                           | 14 (42%)                       |
| <b>Barthel index (mean) <math>\pm</math> SD</b>     | 99 $\pm$ 2.2                   |
| <b>NIHSS on admission, mean <math>\pm</math> SD</b> | 14 $\pm$ (6.3)                 |
| <b>SBP on admission, mean <math>\pm</math> SD</b>   | 159 $\pm$ (21)                 |
| <b>Risk factors</b>                                 |                                |
| Atrial fibrillation, n (%)                          | 8 (24%)                        |
| Diabetes Mellitus, n (%)                            | 3 (9%)                         |
| Family history of stroke, n (%)                     | 9 (27%)                        |
| Hypertension, n (%)                                 | 22 (67%)                       |
| Dyslipidaemia, n (%)                                | 21 (64%)                       |
| Ischaemic heart disease, n (%)                      | 13 (39%)                       |
| Active smoker, n (%)                                | 7 (21%)                        |
| Alcohol excess, n (%)                               | 4 (12%)                        |
| Peripheral arterial disease, n (%)                  | 2 (6%)                         |
| <b>Qualifying event</b>                             |                                |
| Ischaemic stroke-TOAST classification               |                                |
| Cardioembolism, n (%)                               | 17 (52%)                       |
| Large artery atherosclerosis, n (%)                 | 5 (15%)                        |
| Other known aetiology, n (%)                        | 1 (3%)                         |
| Unknown aetiology, n (%)                            | 10 (30%)                       |
| <b>Reperfusion therapy</b>                          |                                |
| Tissue plasminogen activator, n (%)                 | 23 (70%)                       |
| Endovascular mechanical thrombectomy, n (%)         | 23 (70%)                       |
| <b>Occlusion site</b>                               |                                |
| M1                                                  | 19 (58%)                       |
| M2                                                  | 8 (24%)                        |
| M3                                                  | 1 (3%)                         |
| Tandem                                              | 2 (6%)                         |
| ICA                                                 | 2 (6%)                         |

No occlusion

1 (3%)

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**Supplementary Table S2.** Infarct volume measured from CT on admission and at 24 h in patients with large vessel occlusion (LVO) using the ABC/2 method and e-ASPECTS software (ml).

| Large vessel occlusion              | O1        | O2        | Mean        | e-ASPECTS | O1 vs. O2 |          | O1 vs.    |          | O2 vs.    |          | Mean(O1, O2) vs. |          |
|-------------------------------------|-----------|-----------|-------------|-----------|-----------|----------|-----------|----------|-----------|----------|------------------|----------|
|                                     |           |           | (O1, O2)    |           |           |          | e-ASPECTS |          | e-ASPECTS |          | e-ASPECTS        |          |
|                                     |           |           | Volume (ml) |           | Diff (ml) | <i>p</i> | Diff (ml) | <i>p</i> | Diff (ml) | <i>p</i> | Diff (ml)        | <i>p</i> |
| CT on admission<br>( <i>n</i> = 31) | 12.2±35.1 | 13.6±26.3 | 12.9±26.7   | 17.8±18.4 | -1.3      | 0.81     | -5.6      | 0.23     | -4.2      | 0.14     | -4.9             | 0.06     |
| CT at 24 h<br>( <i>n</i> = 31)      | 29.7±53.6 | 31.4±43.1 | 30.5±45.1   |           | -1.7      | 0.80     | 11.9      | 0.14     | 13.5      | 0.03     | 12.7             | 0.04     |

**Supplementary Table S3.** Lin's concordance correlation coefficient for CTs performed on admission and at 24 h in patients with large vessel occlusion (LVO) using the ABC/2 formula and e-ASPECTS software.

|                                            |                             | Concordance | Confidence    | p-value |
|--------------------------------------------|-----------------------------|-------------|---------------|---------|
|                                            |                             | correlation | Interval (CI) |         |
| <b>CT on admission</b><br>( <i>n</i> = 31) | O1 vs. O2                   | 0.484       | 0.220 - 0.748 | <0.001  |
|                                            | O1 vs. e-ASPECTS            | 0.573       | 0.400 - 0.746 | <0.001  |
|                                            | O2 vs. e-ASPECTS            | 0.754       | 0.623 - 0.886 | <0.001  |
|                                            | Mean (O1, O2) vs. e-ASPECTS | 0.794       | 0.687 - 0.900 | <0.001  |
| <b>CT at 24 h</b><br>( <i>n</i> = 31)      | O1 vs. O2                   | 0.717       | 0.549 - 0.885 | <0.001  |
|                                            | O1 vs. e-ASPECTS            | 0.392       | 0.411 - 0.799 | <0.001  |
|                                            | O2 vs. e-ASPECTS            | 0.483       | 0.323 - 0.644 | <0.001  |
|                                            | Mean (O1, O2) vs. e-ASPECTS | 0.487       | 0.335 - 0.638 | <0.001  |