**Supplemental table 1 . Multivariate logistic regression analysis predicting outcomes after AIS**

| **Characteristic** | **Adjusted****OR (95% CI)** | ***P* Value**  |
| --- | --- | --- |
| Age, y, mean ± SD | 1.01 (1.00-1.03) | 0.002 |
| Male, n (%) | 1.05 (0.94-1.18) | 0.391 |
| Time, h | 0.99 (0.95-1.05) | 0.885 |
| BMI | 1.15 (1.06-1.21) | 0.014 |
| SBP (mmHg) | 1.01 (0.98-1.03) | 0.437 |
| DBP (mmHg) | 0.99 (0.99-1.02) | 0.715 |
| Intracranial arterial stenosis | 1.15 (1.08-1.22) | 0.012 |
| Baseline NIHSS | 1.02(1.01-1.05) | 0.007 |
| Atrial fibrillation | 1.06 (0.91-1.24) | 0.425 |
| Diabetes mellitus | 1.15 (1.03-1.31) | 0.017 |
| WBC (109/L) | 1.08 (1.05-1.11) | <0.001 |
| Neutrophil (109/L) | 1.05 (1.01-1.09) | 0.025 |
| Glucose (mmol/L) | 1.12 (0.99-1.25) | 0.022 |
| END | 1.74 (1.53-1.97) | <0.001 |

Time，time from onset to admission；BMI, body mass index; SBP, systolic blood pressure; DBP, diastolic blood pressure; NIHSS, national institutes of health stroke scale; WBC, white blood cell; END, early neurological deterioration;

**Supplemental table 2 . Adjusted Odds ratios of END according to baseline NIHSS in AIS.**

|  |  |
| --- | --- |
| END | Severity of the patients |
| Mild strokes(NIHSS≤5) | Moderate strokes (6≤NIHSS≤15) | Severe strokes （16≤NIHSS） | P Value |
| No. of cases (%) | 936 (13.1) | 167(15.7) | 183 (20.2) |  |
| Model 1\* | 1 | 1.24 (1.04 - 1.49) | 1.66 (1.39 - 1.98) | ＜0.001 |
| Model 2\*\* | 1 | 1.21 (1.01 - 1.45) | 1.63 (1.36 - 1.94) | ＜0.001 |
| Model 3\*\*\* | 1 | 1.15 (0.96 - 1.38) | 1.49 (1.25 - 1.79) | 0.004 |

\* Adjustment for age, sex

\*\* Adjustment for model 1 add time; BMI; WHR; SBP; DBP; atrial fibrillation; diabetes mellitus; disabled at baseline; intracranial arterial stenosis; infarction location

\*\*\* Adjustment for model 2 add WBC; neutrophil; lymphocyte; monocyte; glucose; uric acid; TG; Hcy; CRP

**Supplement** **figure 1. Subgroup analysis of associations between END and prognosis in AIS**

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**Supplement** **figure 2. The incidence rates of neurological deterioration based on NIHSS of admission**

