**Table 1. Baseline clinical characteristics**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Characteristics**  **Demographic characteristics**  Age, years, median (IQR), y  Male, n (%)  BMI (kg/m2), median (IQR)  Current smoker, n (%)  **Medical history, n (%)**  Hypertension  Diabetes mellitus  Lipid metabolism  Disorders  **TOAST subtype, n (%)**  LAA  Non-LAA  **TIA, n (%)**  **Laboratory test**  SBP at admission (mmHg), median (IQR)  FPG (mM), median (IQR)  Baseline LDL-C (mg/dL), median (IQR)  Baseline HDL-C (mM), median (IQR)  Baseline TG (mM), median (IQR)  Baseline hsCRP (mg/L), median (IQR)  Baseline Lp-PLA2 (ng/ml), median (IQR)  **Discharge medication, n (%)**  Lipid-lowering drugs  Antiplatelet agents | **Lp(a) (mg/dL)** | | | | *p-*value  <0.0001  0.1381 0.0004  0.8587  0.7948  0.1836  0.3022  <0.0001  0.3660  0.2607  0.0185  <0.0001  <0.0001  <0.0001  <0.0001  <0.0001  0.1910  0.7240 |
| **Quartile1 (n=2606)**  **<8.87**  62.00 (53.00, 70.00)  1820 (69.84)  24.62 (22.86, 26.64)  824 (31.62)  1652 (63.39)  658 (25.25)  201 (7.71)  595 (22.83)  2011 (77.17)  198 (7.60)  148.00(135.00, 163.00)  5.61 (4.92, 7.09)  79.34 (58.05, 104.10)  1.04 (0.87, 1.25)  1.47 (1.08, 2.10)  1.51 (0.80, 3.68)  167.71 (119.74, 216.38)  2402 (92.31)  2397 (92.12) | **Quartile2 (n=2605)**  **(8.87, 18.07)**  63.00 (54.00, 71.00)  1798 (69.02)  24.49 (22.60, 26.61)  815 (31.29)  1620 (62.19)  631 (24.22)  214 (8.21)  634 (24.34)  1971 (75.66)  171 (6.56)  148.50(136.00, 165.00)  5.53 (4.92, 7.00)  87.08 (66.18, 111.07)  1.06 (0.90, 1.25)  1.38 (1.04, 1.90)  1.75 (0.82, 4.56)  169.48 (123.32, 217.70)  2421 (93.26)  2379 (91.64) | **Quartile3 (n=2606)**  **(18.07, 35.7**)  63.00 (56.00, 70.00)  1770 (67.92)  24.47 (22.58, 26.57)  831 (31.89)  1638 (62.85)  600 (23.02)  209 (8.02)  655 (25.13)  1951 (74.87)  174 (6.68)  149.00(134.00, 164.50)  5.49(4.86, 6.79)  93.65(71.60, 118.81)  1.09(0.91, 1.29)  1.35(1.02, 1.81)  1.87(0.83, 4.79)  176.78 (132.24, 227.84)  2415 (92.88)  2405 (92.50) | **Quartile4 (n=2605)**  **(≥35.7)**  63.00 (55.00, 70.00)  1746 (67.02)  24.22 (22.48, 26.33)  803 (30.83)  1623 (62.30)  601 (23.07)  237 (9.10)  743 (28.52)  1862 (71.84)  170 (6.53)  148.00(135.00, 164.00)  5.52(4.89, 6.70)  99.07(75.85, 127.32)  1.11(0.94, 1.33)  1.27(0.98, 1.71)  1.98(0.86, 5.79)  186.30 (137.32, 237.94)  2437 (93.80)  2392 (92.07) |

Continuous data are presented as median (interquartile range, IQR), and categorical variables are presented as %.

Abbreviations: BMI: body mass index; LAA: large-artery atherosclerosis; SBP: systolic blood pressure; FPG: fasting plasma glucose; LDL-C: low-density lipoprotein cholesterol; HDL-C: high-density lipoprotein cholesterol; TG: triglyceride; hsCRP: high-sensitivity C-reactive protein; Lp(a): lipoprotein(a); Lp-PLA2: lipoprotein-associated phospholipase A2.

**Table 2. Association between the levels of Lp(a) and stroke outcomes at 3 months and 1 year**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Event rate | HR (95% confidence interval) | |
| Unadjusted | Adjusted |
| **mRS**≥**3 at 3 months**  Lpa(Q1)  Lpa(Q2)  Lpa(Q3)  Lpa(Q4)  **mRS**≥**3 at 1 year**  Lpa(Q1)  Lpa(Q2)  Lpa(Q3)  Lpa(Q4) | 10.94  13.21  14.12  16.28  10.63  12.48  13.01  14.93 | Reference  1.24 (1.05-1.46)  1.34 (1.14-1.58)  1.58 (1.35-1.86)  Reference  1.20 (1.01-1.42)  1.26 (1.06-1.49)  1.48 (1.25-1.74) | Reference  1.32 (1.05-1.66)  1.37 (1.09-1.72)  1.39 (1.11-1.75)  Reference  1.12 (0.90-1.40)  1.18 (0.94-1.47)  1.27 (1.02-1.59) |

Adjust for age, BMI, baseline variables including FPG, LDL-C, HDL-C, TG, hsCRP, Lp-PLA2, sex, TOAST subtype, and NIHSS score at admission.

Abbreviations: BMI: body mass index; FPG: fasting plasma glucose; LDL-C: low-density lipoprotein cholesterol; HDL-C: high-density lipoprotein cholesterol; TG: triglyceride; hsCRP: high-sensitivity C-reactive protein; Lp-PLA2: lipoprotein-associated phospholipase A2; NIHSS: National Institutes of Health Stroke Scale

**Table 3. Subgroup analysis for the association between Lp(a) levels and mRS ≥3 at 3 months**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Event rate | | *p* for interaction |
| Lpa < median | Lpa ≥ median |
| **Age**  < median  ≥ median  **Sex**  male  female  **NIHSS**  < median  ≥ median  **TOAST subtype, n (%)**  LAA  Non-LAA  **TPA, n (%)**  Yes  No  **hsCRP (mg/L)**  < 3.0  ≥ 3.0  **Lp-PLA2**  < median  ≥ median | 8.48  17.05  10.64  15.32  4.49  21.36  17.98  10.24  11.96  13.22  8.39  17.01  11.95  12.20 | 11.43  20.05  14.17  17.35  5.26  25.73  21.75  12.81  15.16  15.65  9.92  21.13  13.82  16.42 | 0.0563  0.8112  0.1638  0.7009  0.7245  0.6784  0.0084 |

Continuous data are presented as median (interquartile range, IQR), and categorical variables are presented as %.

Abbreviations: NIHSS: National Institutes of Health Stroke Scale; LAA: large artery atherosclerosis; TPA: tissue plasminogen activator; hsCRP: high-sensitivity C-reactive protein; Lp(a): lipoprotein(a); Lp-PLA2: lipoprotein-associated phospholipase A2.

**Table 4. Concurrent assessment of Lp(a) levels and Lp-PLA2 mass on stroke outcomes**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Event rate | HR (95% confidence interval) | |
| mRS≥3 at 3 months | Unadjusted | Adjusted |
| Lp(a)< median and Lp-PLA2 <median  Lp(a)< median and Lp-PLA2 ≥ median  Lp(a)≥median and Lp-PLA2<median  Lp(a)≥median and Lp-PLA2≥median | 11.95  12.20  13.82  16.42 | Reference  1.02 (0.87-1.21)  1.18 (1.00-1.39)  1.45 (1.24-1.69) | Reference  1.03 (0.82-1.29)  1.16 (0.93-1.45)  1.24 (0.99-1.55) |

Adjust for age, BMI, baseline variables including FPG, LDL-C, HDL-C, TG, hsCRP, sex, TOAST subtype, and NIHSS score at admission.

Abbreviations: BMI: body mass index; FPG: fasting plasma glucose; LDL-C: low-density lipoprotein cholesterol; HDL-C: high-density lipoprotein cholesterol; TG: triglyceride; hsCRP: high-sensitivity C-reactive protein; NIHSS: National Institutes of Health Stroke Scale.