**Table 1. Baseline clinical characteristics**

|  |  |  |
| --- | --- | --- |
| **Characteristics****Demographic characteristics**Age, years, median (IQR), yMale, n (%)BMI (kg/m2), median (IQR)Current smoker, n (%)**Medical history, n (%)**HypertensionDiabetes mellitusLipid metabolismDisorders**TOAST subtype, n (%)**LAANon-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 drugsAntiplatelet agents | **Lp(a) (mg/dL)** | *p-*value<0.00010.13810.00040.85870.79480.18360.3022<0.00010.36600.26070.0185<0.0001<0.0001<0.0001<0.0001<0.00010.19100.7240 |
| **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) | 10.9413.2114.1216.2810.6312.4813.0114.93 | Reference1.24 (1.05-1.46)1.34 (1.14-1.58)1.58 (1.35-1.86)Reference1.20 (1.01-1.42)1.26 (1.06-1.49)1.48 (1.25-1.74) | Reference1.32 (1.05-1.66)1.37 (1.09-1.72)1.39 (1.11-1.75)Reference1.12 (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**malefemale**NIHSS**< median≥ median**TOAST subtype, n (%)**LAANon-LAA**TPA, n (%)**YesNo**hsCRP (mg/L)**< 3.0≥ 3.0**Lp-PLA2**< median≥ median | 8.4817.0510.6415.324.4921.3617.9810.2411.9613.228.3917.0111.9512.20 | 11.4320.0514.1717.355.2625.7321.7512.8115.1615.659.9221.1313.8216.42 | 0.05630.81120.16380.70090.72450.67840.0084 |

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 <medianLp(a)< median and Lp-PLA2 ≥ medianLp(a)≥median and Lp-PLA2<medianLp(a)≥median and Lp-PLA2≥median | 11.9512.2013.8216.42 | Reference1.02 (0.87-1.21)1.18 (1.00-1.39)1.45 (1.24-1.69) | Reference1.03 (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.