Table S1 Binary logistic regression analysis on CAC and the level of Lp(a) and diabetic status

Characteristics	Crude model			Adjust model		
	OR	95% CI	P	OR	95% CI	P
Lp(a) Level						
Lp(a) <79.5 mg/L	1.00			1.00		
Lp(a) 79.5-300 mg/L	1.14	(0.84, 1.53)	0.40	1.15	(0.83, 1.61)	0.40
Lp(a) >300 mg/L	1.41	(0.99, 2.00)	0.054	1.51	(1.02, 2.24)	0.040[a]
Diabetic status						
Normal	1.00			1.00		
Prediabetes	1.04	(0.74, 1.46)	0.83	0.89	(0.61, 1.30)	0.43
DM	2.39	(1.68, 3.40)	<0.001[a]	2.19	(1.49, 3.22)	<0.001[a]
Lp(a) level and different diabetic status						
Lp(a) <79.5 mg/L						
Normal	1.00			1.00		
Prediabetes	1.18	(0.73, 1.93)	0.50	1.07	(0.63, 1.82)	0.90
DM	2.85	(1.75, 4.61)	<0.001[a]	2.95	(1.74, 4.98)	<0.001[a]
Lp(a) 79.5-300 mg/L						
Normal	1.57	(0.81, 3.06)	0.18	1.82	(0.89, 3.74)	0.09
Prediabetes	1.31	(0.79, 2.19)	0.30	1.23	(0.71, 2.16)	0.51
DM	2.99	(1.71, 5.22)	<0.001[a]	2.58	(1.42, 4.71)	0.005[a]
Lp(a) >300 mg/L						
Normal	1.90	(0.92, 3.89)	0.08	2.07	(0.95, 4.50)	0.08
Prediabetes	1.68	(0.94, 3.01)	0.08	1.59	(0.83, 3.02)	0.24
DM	3.82	(1.96, 7.44)	<0.001[a]	3.59	(1.76, 7.33)	0.001[a]

[a], P<0.05. The prevalence of CAC: (I) Group Lp(a) Level: Adjusted for diabetic status, gender, age, hypertension, antilipidemic use, antihypertensive use, Cr, HDL-C, hsCRP, LVEF. (II) Group Diabetic Status: Adjusted for Lp(a), gender, age, hypertension, antilipidemic use, antihypertensive use, Cr, HDL-C, hsCRP, LVEF. (III) Group Lp(A) Level and Different Diabetic Status: Adjusted for gender, age, hypertension, antilipidemic use, antihypertensive use, Cr, HDL-C, hsCRP, LVEF. CAC, coronary artery calcium; cIMT, carotid intima-media thickness; DM, diabetes mellitus; Lp(a), lipoprotein (a); Cr, creatinine; HDL-C, high-density lipoprotein cholesterol; hsCRP, hypersensitive C-reactive protein; LVEF, left ventricular ejection fraction; TG, triglycerides; OR, odds ratio; CI, confidence interval.

Table S2 Multivariable logistic regression analysis of CAC severity and Lp(a) level with different diabetic status

Characteristics	Crude model			Model 1			Model 2		
	OR	95% CI	P	OR	95% CI	P	OR	95% CI	P
CACs 0.1–99.9									
Lp(a) <79.5 mg/L									
Normal	1.00			1.00			1.00		
Prediabetes	1.50	(0.81, 2.75)	0.20	1.29	(0.68, 2.44)	0.44	1.20	(0.63, 2.28)	0.59
DM	2.95	(1.62, 5.40)	<0.001[a]	2.75	(1.49, 5.19)	0.002[a]	2.65	(1.39, 5.03)	0.003[a]
Lp(a) 79.5–300 mg/L									
Normal	2.37	(1.10, 5.14)	0.03[a]	2.62	(1.16, 5.90)	0.02[a]	2.51	(1.11, 5.67)	0.03[a]
Prediabetes	1.64	(0.87, 3.10)	0.13	1.47	(0.76, 2.86)	0.26	1.40	(0.72, 2.75)	0.32
DM	2.84	(1.42, 5.67)	0.003[a]	2.23	(1.08, 4.59)	0.03[a]	2.15	(1.04, 4.44)	0.04[a]
Lp(a) >300 mg/L									
Normal	1.99	(0.82, 4.82)	0.13	2.03	(0.80, 5.12)	0.14	1.97	(0.75, 5.13)	0.17
Prediabetes	1.81	(0.87, 3.74)	0.11	1.62	(0.75, 3.49)	0.22	1.53	(0.69, 3.39)	0.30
DM	3.43	(1.54, 7.63)	0.003[a]	3.11	(1.34, 7.22)	0.008[a]	2.99	(1.25, 7.14)	0.01[a]
CACs 100–399.9									
Lp(a) <79.5 mg/L									
Normal	1.00			1.00			1.00		
Prediabetes	1.09	(0.52, 2.31)	0.81	0.88	(0.39, 1.98)	0.76	0.85	(0.38, 1.94)	0.70
DM	2.53	(1.24, 5.16)	0.01[a]	2.52	(1.16, 5.49)	0.02[a]	2.47	(1.13, 5.43)	0.02[a]
Lp(a) 79.5–300 mg/L									
Normal	0.59	(0.16, 2.23)	0.44	0.67	(0.17, 2.68)	0.57	0.67	(0.17, 2.71)	0.58
Prediabetes	0.94	(0.41, 2.14)	0.89	0.81	(0.34, 1.97)	0.64	0.80	(0.33, 1.97)	0.63
DM	2.94	(1.33, 6.50)	0.008[a]	2.26	(0.96, 5.33)	0.06	2.30	(0.97, 5.44)	0.059
Lp(a) >300 mg/L									
Normal	1.90	(0.67, 5.35)	0.23	2.04	(0.67, 6.25)	0.21	2.13	(0.66, 6.87)	0.21
Prediabetes	1.62	(0.68, 3.86)	0.27	1.28	(0.50, 3.32)	0.60	1.37	(0.51, 3.7)	0.54

[a], P<0.05. Model 1: adjusted for gender, age, hypertension, antilipidemic use, antihypertensive use, Cr, HDL-C, hsCRP, LVEF. Model 2: Model 1 + dyslipidemia, TC, LDL-C, HDL-C. CAC, coronary artery calcium; cIMT, carotid intima-media thickness; DM, diabetes mellitus; Lp(a), lipoprotein (a); Cr, creatinine; HDL-C, high-density lipoprotein cholesterol; hsCRP, hypersensitive C-reactive protein; LVEF, left ventricular ejection fraction; TC, total cholesterol; TG, triglycerides; LDL-C, low-density lipoprotein cholesterol; HDL-C, high-density lipoprotein cholesterol; OR, odds ratio; CI, confidence interval.

Table S3 Binary logistic regression analysis on carotid arteriopathy with Lp(a) level and diabetic status

Characteristics	Crude model			Adjust model		
	OR	95% CI	P	OR	95% CI	P
Level of Lp(a)						
Lp(a) <79.5 mg/L	1.00			1.00		
Lp(a) 79.5-300 mg/L	1.55	(1.11, 2.15)	0.009[a]	1.59	(1.10, 2.29)	0.01[a]
Lp(a) >300 mg/L	1.96	(1.31, 2.94)	0.001[a]	1.77	(1.10, 2.86)	0.02[a]
Diabetic status						
Normal	1.00			1.00		
Prediabetes	1.13	(0.79, 1.62)	0.50	0.88	(0.59, 1.33)	0.55
DM	1.57	(1.08, 2.29)	0.02[a]	1.20	(0.78, 1.85)	0.41
Grouped the level of Lp(a) and diabetic status						
Lp(a) <79.5 mg/L						
Normal	1.00			1.00		
Prediabetes	0.94	(0.57, 1.54)	0.81	0.69	(0.40, 1.22)	0.20
DM	1.15	(0.70, 1.87)	0.59	0.88	(0.50, 1.53)	0.64
Lp(a) 79.5-300 mg/L						
Normal	1.14	(0.57, 2.27)	0.72	1.12	(0.52, 2.41)	0.77
Prediabetes	1.45	(0.85, 2.49)	0.18	1.26	(0.69, 2.30)	0.45
DM	2.24	(1.21, 4.17)	0.01[a]	1.46	(0.74, 2.89)	0.27
Lp(a) >300 mg/L						
Normal	1.22	(0.57, 2.61)	0.60	0.91	(0.38, 2.19)	0.84
Prediabetes	1.62	(0.86, 3.05)	0.14	1.14	(0.54, 2.40)	0.73
DM	5.11	(2.03, 12.88)	0.001[a]	3.38	(1.24, 9.20)	0.02[a]

[a], P<0.05. The prevalence of carotid arteriopathy: (I) Group Lp(a) Level: Adjusted for diabetic status, gender, age, hypertension, dyslipidemia, antilipidemic use, antihypertensive use, smoking, Cr, TG, hsCRP, LVEF. (II) Group Diabetic Status: Adjusted for Lp(a), gender, age, hypertension, dyslipidemia, antilipidemic use, antihypertensive use, smoking, Cr, TG, hsCRP, LVEF. (III) Group Lp(a) Level and Different Diabetic Status: Adjusted for gender, age, hypertension, dyslipidemia, antilipidemic use, antihypertensive use, smoking, Cr, TG, hsCRP, LVEF. CAC, coronary artery calcium; cIMT, carotid intima-media thickness; DM, diabetes mellitus; Lp(a), lipoprotein(a); Cr, creatinine; HDL-C, high-density lipoprotein cholesterol; hsCRP, hypersensitive C-reactive protein; LVEF, left ventricular ejection fraction; TG, triglycerides; OR, odds ratio; CI, confidence interval.

Table S4 Multivariable logistic regression analysis on increased cIMT and carotid plaques with Lp(a) level and diabetic status

Characteristics	Crude model			Model 1			Model 2		
	OR	95% CI	P	OR	95% CI	P	OR	95% CI	P
Increased cIMT									
Lp(a) <79.5 mg/L									
Normal	1.00			1.00			1.00		
Prediabetes	1.13	(0.52, 2.45)	0.75	0.86	(0.38, 1.94)	0.72	0.76	(0.38, 1.52)	0.43
DM	0.92	(0.41, 2.04)	0.83	0.82	(0.35, 1.91)	0.64	1.05	(0.53, 2.08)	0.90
Lp(a) 79.5-300 mg/L									
Normal	1.59	(0.58, 4.36)	0.37	1.43	(0.50, 4.09)	0.51	1.15	(0.44, 2.97)	0.78
Prediabetes	1.25	(0.53, 2.94)	0.61	1.05	(0.43, 2.55)	0.92	1.37	(0.66, 2.88)	0.40
DM	1.80	(0.71, 4.59)	0.22	1.27	(0.48, 3.38)	0.63	1.70	(0.76, 3.82)	0.20
Lp(a) >300 mg/L									
Normal	1.50	(0.50, 4.46)	0.47	0.91	(0.28, 2.95)	0.88	0.92	(0.32, 2.66)	0.87
Prediabetes	1.80	(0.71, 4.59)	0.22	1.07	(0.39, 2.96)	0.89	1.48	(0.61, 3.57)	0.38
DM	6.50	(2.08, 20.34)	0.001[a]	3.67	(1.10, 12.30)	0.04[a]	3.51	(1.12, 11.01)	0.03[a]
Stable Plaques									
Lp(a) <79.5 mg/L									
Normal	1.00			1.00			1.00		
Prediabetes	1.05	(0.55, 1.98)	0.89	0.76	(0.38, 1.53)	0.44	0.57	(0.29, 1.13)	0.11
DM	1.37	(0.73, 2.55)	0.33	1.02	(0.52, 2.03)	0.95	0.80	(0.41, 1.56)	0.51
Lp(a) 79.5-300 mg/L									
Normal	1.19	(0.49, 2.89)	0.71	1.19	(0.46, 3.06)	0.73	0.91	(0.35, 2.33)	0.84
Prediabetes	1.59	(0.80, 3.14)	0.18	1.41	(0.68, 2.94)	0.36	1.34	(0.65, 2.74)	0.43
DM	2.60	(1.23, 5.51)	0.01[a]	1.71	(0.77, 3.82)	0.19	1.43	(0.65, 3.13)	0.38
Lp(a) >300 mg/L									
Normal	1.20	(0.46, 3.11)	0.71	0.90	(0.31, 2.60)	0.85	0.56	(0.19, 1.66)	0.30
Prediabetes	2.02	(0.93, 4.37)	0.08	1.54	(0.64, 3.71)	0.33	0.88	(0.36, 2.15)	0.79
DM	4.76	(1.66, 13.66)	0.004[a]	3.39	(1.09, 10.55)	0.04[a]	3.19	(1.05, 9.65)	0.04[a]
Vulnerable Plaques									
Lp(a) <79.5 mg/L									
Normal	1.00			1.00			1.00		
Prediabetes	0.79	(0.43, 1.43)	0.43	0.56	(0.28, 1.11)	0.10	0.77	(0.34, 1.74)	0.53
DM	1.08	(0.60, 1.93)	0.80	0.81	(0.42, 1.58)	0.53	0.83	(0.35, 1.95)	0.67

Table S4 (*continued*)

Table S4 (*continued*)

Characteristics	Crude model			Model 1			Model 2		
	OR	95% CI	P	OR	95% CI	P	OR	95% CI	P
Lp(a) 79.5-300 mg/L									
Normal	0.92	(0.39, 2.15)	0.84	0.89	(0.35, 2.28)	0.81	1.24	(0.43, 3.6)	0.69
Prediabetes	1.43	(0.76, 2.69)	0.26	1.30	(0.64, 2.64)	0.47	0.89	(0.36, 2.2)	0.81
DM	2.16	(1.07, 4.38)	0.03[a]	1.42	(0.65, 3.09)	0.38	1.15	(0.43, 3.08)	0.79
Lp(a) >300 mg/L									
Normal	0.86	(0.34, 2.17)	0.75	0.57	(0.20, 1.68)	0.31	0.91	(0.28, 2.95)	0.87
Prediabetes	1.26	(0.59, 2.69)	0.55	0.84	(0.35, 2.06)	0.71	0.98	(0.35, 2.71)	0.96
DM	4.80	(1.76, 13.06)	0.002[a]	3.21	(1.07, 9.65)	0.04[a]	3.73	(1.10, 12.68)	0.04[a]

[a], P<0.05. Model 1: adjusted for gender, age, hypertension, dyslipidemia, antilipidemic use, antihypertensive use, smoking, Cr, TG, hsCRP, LVEF. Model 2: Model 1 + TC, LDL-C, HDL-C. CAC, coronary artery calcium; cIMT, carotid intima-media thickness; DM, diabetes mellitus; Lp(a), lipoprotein(a); Cr, creatinine; HDL-C, high-density lipoprotein cholesterol; hsCRP, hypersensitive C-reactive protein; LVEF, left ventricular ejection fraction; TC, total cholesterol; TG, triglycerides; LDL-C, low-density lipoprotein cholesterol; HDL-C, high-density lipoprotein cholesterol; OR, odds ratio; CI, confidence interval.