

Supplementary material

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Table S1. Baseline characteristics of patients with severe aortic stenosis (AS) stratified according to serum Lp(a) levels

Variable	AS with Lp(a)	AS with Lp(a)	P value
	≥50 mg/dL (n=50)	<50 mg/dL (n=20)	
Age, years	66 [60-70]	68 [60-70]	0.83
Male, n (%)	34 (68)	9 (45)	0.11
BMI, kg m ⁻²	28.7 (4.7)	28.1 (4.5)	0.60
Risk factors, n (%)			
Arterial hypertension	47 (94)	16 (80)	0.10
Hypercholesterolemia	46 (92)	18 (90)	0.99
Current smoking	9 (18)	4 (20)	0.99
Medications, n (%)			
Beta-blockers	33 (66)	17 (85)	0.15
Acetylsalicylic acid	32 (64)	14 (70)	0.78
ACE inhibitors	31 (62)	12 (60)	0.99
Statins	37 (74)	16 (80)	0.76
Echocardiographic parameters			
V _{max} , m/s	4.6 [4.4-4.8]	4.2 [4.0-4.5]	<0.001
Mean gradient, mmHg	52 [47-62]	46 [43-56]	0.044

Maximal gradient, mmHg	83 [79-91]	72 [64-81]	<0.001
AVA, cm ²	0.8 [0.7-0.8]	0.9 [0.8-0.9]	0.003
Laboratory investigations			
Fibrinogen, g/L	3.4 (0.8)	3.3 (0.7)	0.61
Creatinine, μmol/L	76 [70-89]	78 [71-105]	0.32
CRP, mg/L	2.0 [1.0-3.8]	1.9 [1.0-4.2]	0.95
Glucose, mmol/L	5.3 [5.0-5.6]	5.4 [5.2-5.6]	0.27
Total cholesterol mmol/L	4.1 [3.5-4.8]	3.8 [3.4-4.5]	0.20
LDL-cholesterol, mmol/L	2.6 [2.1-3.3]	2.3 [1.8-2.7]	0.19
HDL-cholesterol, mmol/L	1.3 [1.0-1.5]	1.3 [1.2-1.6]	0.19
Triglycerides, mmol/L	1.3 [0.9-1.8]	1.2 [0.9-1.4]	0.44
OxPL, μg/mL	0.62 [0.38-1.0]	0.46 [0.27-0.63]	0.03
Lp(a), mg/dL	81.9 [67.8-121.1]	6.7 [2.9-11]	<0.001
Plasma markers of fibrinolysis			
PAI-1, ng/mL	20.6 (8.5)	14.9 (4.8)	0.003
tPA, ng/mL	5.7 (2.0)	5.9 (2.4)	0.75
α ₂ -antiplasmin, %	96.2 (7.5)	94.3 (5.8)	0.31
Plasminogen, %	101.6 (13.2)	99.0 (16.5)	0.48
TAFI, %	85.7 (15.8)	76.7 (10.9)	0.007
CLT, min	103 [97-108]	93 [90-96]	<0.001

Data presented as numbers (percentages), mean (standard deviation) or medians [interquartile range]. P-values of <0.05 were considered statistically significant.

Abbreviations: ACE inhibitors, angiotensin converting enzyme inhibitors; AS, aortic stenosis; AVA, aortic valve area; BMI, body mass index; CLT, clot lysis time; CRP, C-reactive protein; Lp(a), lipoprotein (a); OxPL, oxidized phospholipids; PAI-1, plasminogen activator

inhibitor 1; TAFI, thrombin activatable fibrinolysis inhibitor; tPA, tissue plasminogen activator; V_{\max} , peak transvalvular velocity.

Table S2. Factors associated with clot lysis time (CLT) in patients with severe aortic stenosis and Lp(a) \geq 50 mg/dL

Univariable			
Variable	Estimate	95% CI	P value
OxPL, μ g/mL	9.17	6.12;12.22	<0.001
Lp(a), mg/dL	0.14	0.09;0.19	<0.001
PAI-1, ng/mL	0.47	0.26;0.69	<0.001
TAFI, %	0.15	0.02;0.28	0.03
tPA, ng/mL	0.77	-0.29;1.83	0.15
Plasminogen, %	-0.13	-0.29;0.03	0.12
α_2 -antiplasmin, %	0.07	-0.22;0.36	0.63
V_{\max} , m/s	10.9	5.00;16.95	<0.001
Mean gradient, mmHg	0.31	0.09;0.52	<0.001
Max gradient, mmHg	0.29	0.14;0.45	<0.001
AVA, cm^2	-12.4	-30.2;5.49	0.17
Age, years	-0.29	-0.54;-0.04	0.02
BMI, kg m^{-2}	0.29	-0.17;0.75	0.21
Fibrinogen, g/L	2.29	-0.39;4.97	0.09
Creatinine, μ mol/L	-0.04	-0.18;0.11	0.59

CRP, mg/L	0.11	-0.49;0.71	0.72
Glucose, mmol/L	0.18	-3.86;4.22	0.93
Total cholesterol mmol/L	1.6	-0.46;3.66	0.13
LDL-cholesterol, mmol/L	1.83	-0.35;4.00	0.10
HDL-cholesterol, mmol/L	0.46	-1.73;2.66	0.67
Triglycerides, mmol/L	-0.47	-3.57;2.63	0.76
Multivariable			
OxPL, μ g/mL	7.87	4.71;11.03	<0.001
Plasminogen, %	-0.11	-0.23;0.01	0.08
Age, years	-0.19	-0.39;0.02	0.07
Fibrinogen, g/L	1.31	-0.78;3.40	0.21

CI, confidence interval. Abbreviations explained in Table S1. Multivariable model adjusted for BMI.