

Supplementary material

Kern A, Stompór T, Kiewisz J, et al. Association of serum sclerostin levels with atherosclerosis severity in patients referred for invasive coronary angiography. Kardiol Pol. 2020; 78: 1271-1273. doi:10.33963/KP.15622

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Suppl. Table S1. Baseline characteristics and laboratory findings in the study population.

Parameter	Patients	Coronary artery disease advancement					
		No obstructive disease	1VD	2VD	3VD	LM	P
	N = 205	N = 49	N = 51	N = 50	N = 43	N = 12	
Baseline characteristics [mean (SEM) or n (percentage)]							
Males	144 (70.2%)	34 (69.4%)	33 (64.7%)	34 (68%)	33 (76.6%)	10 (83.3%)	0.60
Age (years)	62.9 (0.6)	62.8 (1.4)	61.9 (1.2)	64.1 (1.2)	62.9 (1.4)	63.8 (2.3)	0.86
Acute coronary syndrome:	76 (37.1)	0	24 (47.1)	28 (56)	21 (48.8)	3 (25)	0.04
- unstable angina	24 (11.7)	0	4 (7.8)	10 (20)	8 (18.6)	2 (16.7)	0.52
- NSTEMI	45 (21.9)	0	16 (31.4)	16 (32)	12 (27.9)	1 (8.3)	0.04
- STEMI	7 (3.4)	0	4 (7.8)	2 (4)	1 (2.3)	0	0.87
HTN	154 (75.1)	29 (59.2)	39 (76.5)	41 (82)	38 (88.4)	7 (58.3)	0.03
Diabetes	74 (36.1)	2 (4.1)	13 (25.5)	20 (40)	37 (86)	2 (16.7)	0.03
Metabolic syndrome	85 (41.5)	7 (14.3)	14 (27.5)	22 (44)	35 (81.4)	7 (58.3)	0.01
BMI (kg/m ²)	27.6 (0.3)	27.3 (0.7)	27.5 (0.6)	28.8 (0.7)	26.7 (0.5)	28.6 (0.8)	0.19
SBP (mmHg)	137.1 (0.9)	138.4 (1.9)	138.0 (1.7)	136.6 (1.8)	135.2 (1.9)	136.7 (5.0)	0.73
DBP (mmHg)	80.6 (0.4)	80.0 (0.9)	80.2 (0.8)	81.2 (0.8)	80.4 (0.8)	79.2 (1.9)	0.79
Echo EF (%)	54.8 (0.7)	57.3 (1.6)	54.5 (1.30)	54.7 (1.5)	52.7 (1.5)	54.3 (3.7)	0.28
SYNTAX score	15.1 (0.8)	0.94 (0.4)	10.3 (0.81)	19.5 (1.1)	27.1 (1.3)	30.9 (2.3)	<0.001
Laboratory findings [mean (SEM)]							
Hemoglobin (g/dL)	14.0 (0.1)	14.0 (0.2)	14.2 (0.2)	13.8 (0.2)	14.2 (0.2)	14.1 (0.4)	0.48
Hematocrit (%)	41.1 (0.3)	41.4 (0.5)	41.6 (0.5)	40.2 (0.5)	41.7 (0.5)	39.5 (2.5)	0.27
Erythrocytes (10 ⁹ /mL)	4.7 (0.1)	4.64 (0.1)	4.72 (0.1)	4.76 (0.2)	4.7 (0.1)	4.69 (0.1)	0.94
Glucose (mg/dL)	117.5 (2.8)	102.0 (2.4)	127.1 (7.2)	128.2 (6.4)	115.1 (5.4)	103.8 (4.5)	0.046
Chol (mg/dL)	188.9	172.5 (4.9)	192.4 (6.5)	188.7 (7.4)	204.6	186.1	0.22

	(3.8)				(12.2)	(13.3)	
HDL_chol (mg/dL)	54.7 (1.12)	61.2 (2.4)	54.2 (1.9)	48.9 (2.0)	54.9 (2.8)	47.8 (2.7)	< 0.01
LDL_chol (mg/dL)	114.9 (3.3)	97.8 (4.5)	119.5 (6.1)	116.8 (5.9)	127.2 (10.4)	112.5 (9.3)	0.07
TG (mg/dL)	145.2 (7.9)	117.4 (7.9)	148.5 (15.1)	158.2 (14.1)	149.4 (23.9)	175.5 (45.6)	0.19
Urea (mg/dL)	34.5 (0.7)	34.5 (1.1)	33.4 (1.2)	35.5 (1.5)	35.1 (1.5)	33.0 (2.4)	0.82
Creatinine (mg/dL)	0.9 (0.01)	0.9 (0.03)	0.89 (0.02)	0.89 (0.03)	0.91 (0.02)	0.93 (0.05)	0.97
eGFR (mL/min/1.73m²)	86.5 (1.6)	83.1 (2.8)	86.7 (2.9)	88.9 (4.1)	87.4 (2.9)	85.8 (5.1)	0.74
Fibrinogen (mg/dL)	401.1 (6.3)	382.0 (12.3)	403.3 (11)	408.3 (14.3)	418.4 (14.9)	377.0 (8.5)	0.24
hsCRP (mg/L)	1.01 (0.2)	0.85 (0.4)	1.27 (0.6)	1.3 (0.5)	0.79 (0.2)	0.29 (0.08)	0.40
Potassium (mmol/L)	4.40 (0.03)	4.48 (0.06)	4.29 (0.06)	4.41 (0.07)	4.47 (0.06)	4.25 (0.16)	0.03
Sodium (mmol/L)	140.9 (0.2)	141.3 (0.4)	140.6 (0.4)	140.4 (0.4)	141.2 (0.4)	141.2 (0.6)	0.46
Chloride (mmol/L)	103.4 (0.2)	103.5 (0.4)	103.1 (0.4)	103.7 (0.5)	103.5 (0.5)	103.5 (0.8)	0.63
Phosphate (mg/dL)	3.15 (0.1)	3.23 (0.1)	3.08 (0.1)	3.06 (0.1)	3.07 (0.07)	3.83 (0.5)	0.11
Calcium (mg/dL)	9.06 (0.04)	9.03 (0.1)	9.09 (0.09)	9.05 (0.07)	9.07 (0.08)	9.02 (0.20)	0.99
Ca x P (mg²/dL²)	28.6 (0.5)	29.1 (0.7)	28.1 (1.1)	27.7 (0.8)	27.9 (0.8)	34.4 (4.1)	0.24

The results are presented as means (SEM). 1VD – one vessel disease; 2VD – two vessel

disease; 3VD – three vessel disease; CAD – coronary artery disease; HTN – arterial

hypertension; LM – left main; BMI – body mass index; SBP – systolic blood pressure; DBP –

diastolic blood pressure; EF – ejection fraction; TG - triglyceride

Suppl. Table S2. Population characteristics in terms of serum sclerostin concentration

Parameter (mean [SEM])	Patients	Sclerostin (median = 133.21 pg/mL)		
		≤ median	> median	P
	N = 205	N = 103	N = 102	
Baseline characteristics				
Age (years)	62.9 (0.6)	62.1 (0.9)	63.7 (0.9)	0.25
BMI (kg/m ²)	27.6 (0.3)	26.9 (0.3)	28.3 (0.5)	0.049
SBP (mmHg)	137.1 (0.9)	135.9 (1.4)	138.1 (1.3)	0.22
DBP (mmHg)	80.6 (0.4)	80.5 (0.6)	80.9 (0.6)	0.49
Echo EF (%)	54.8 (0.7)	55.9 (1.1)	53.6 (1.0)	0.14
SYNTAX score	15.1 (0.8)	17.3 (1.21)	14.2 (1.2)	0.06
Laboratory findings				
Hemoglobin (g/dL)	14.0 (0.1)	14.2 (0.1)	14.0 (0.1)	0.35
Hematocrit (%)	41.1 (0.3)	41.2 (0.5)	41.2 (0.3)	0.47
Erythrocytes (10 ⁹ /mL)	4.7 (0.1)	4.71 (0.05)	4.7 (0.1)	0.56
Glucose (mg/dL)	117.5 (2.8)	111.9 (3.2)	124.9 (4.9)	0.24
Chol (mg/dL)	188.9 (3.8)	183.2 (4.9)	195.6 (6.4)	0.15
HDL_chol (mg/dL)	54.7 (1.12)	52.4 (1.6)	55.6 (1.7)	0.15
LDL_chol (mg/dL)	114.9 (3.3)	110.6 (4.3)	120.8 (5.4)	0.19
TG (mg/dL)	145.2 (7.9)	153.5 (14.5)	141.2 (7.9)	0.97
Urea (mg/dL)	34.5 (0.7)	33.6 (0.9)	35.2 (1.0)	0.46
Creatinine (mg/dL)	0.9 (0.01)	0.88 (0.02)	0.91 (0.02)	0.18
eGFR (mL/min/1.73m ²)	86.5 (1.6)	89.9 (2.2)	83.7 (2.4)	0.008
Fibrinogen (mg/dL)	401.1 (6.3)	406.9 (7.22)	390.1 (10.8)	0.04
hsCRP (mg/L)	1.01 (0.2)	0.58 (0.10)	1.48 (0.48)	0.55
Potassium (mmol/L)	4.40 (0.03)	4.41 (0.04)	4.36 (0.5)	0.29
Sodium (mmol/L)	140.9 (0.2)	141.08 (0.24)	140.60 (0.28)	0.16
Chloride (mmol/L)	103.4 (0.2)	103.8 (0.3)	103.06 (0.3)	0.10
Phosphate (mg/dL)	3.15 (0.1)	3.16 (0.08)	3.08 (0.06)	0.44
Calcium (mg/dL)	9.06 (0.04)	9.03 (0.06)	9.08 (0.07)	0.60
Ca x P (mg ² /dL ²)	28.6 (0.5)	28.7 (0.8)	27.9 (0.6)	0.56

The results are presented as means (SEM). 1VD – one vessel disease; 2VD – two vessel

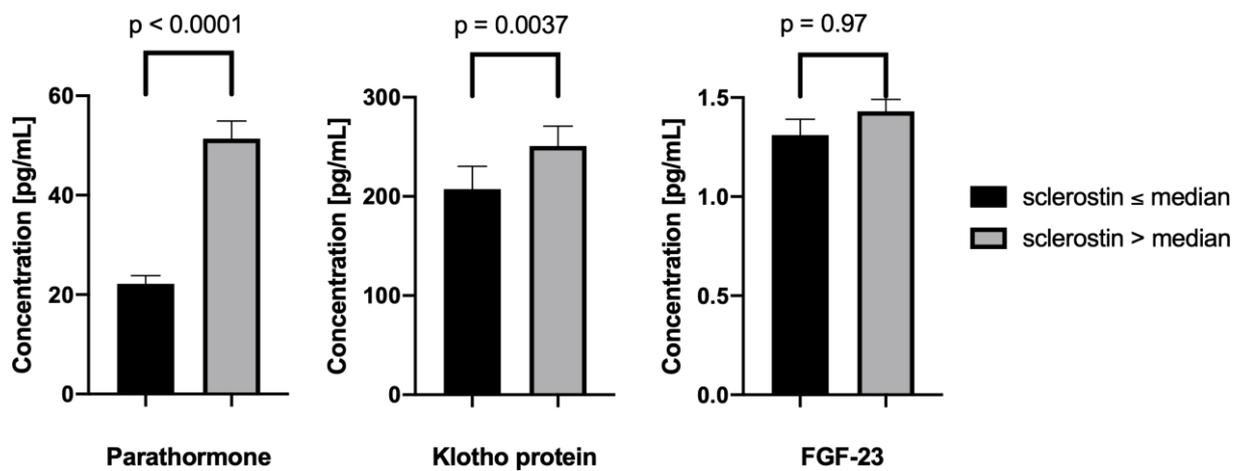
disease; 3VD – three vessel disease; LM – left main; BMI – body mass index; SBP – systolic

blood pressure; DBP – diastolic blood pressure; EF – ejection fraction; TG - triglyceride

Suppl. Table S3. Significant correlations between studied factors and serum sclerostin concentration.

Population	Parameter	Pearson's correlation (r)	P
Whole population N = 205			
	hsCRP	0.1477	0.04
	iPTH	0.5126	< 0.001
	Klotho	0.2572	< 0.001
SYNTAX score < 22 N = 150			
	Fibrinogen	-0.1705	0.046
	iPTH	0.5407	< 0.001
	Klotho	0.2647	< 0.01
SYNTAX score 23 – 32 N = 35			
	HDL_chol	-0.3686	0.03
	Fibrinogen	0.3894	0.02
	hsCRP	0.4202	0.01
	Sodium	-0.3577	0.04
	iPTH	0.6671	< 0.001
SYNTAX score > 32 N = 20			
	Potassium	-0.5102	0.02
	Klotho	0.5090	0.02

hs-CRP – high-sensitive C-reactive protein; iPTH – intact parathormone



Suppl. Figure S1. Mean serum parathormone, Klotho protein and FGF-23 concentrations in terms of serum sclerostin concentration.