



Correction to: Association between plasma levels of PCSK9 and the presence of coronary artery disease in Japanese

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In the original publication of the article, Tables 1, 2 and 3 was published incorrectly. Unnecessary inequality symbols were added to all the numbers in the ‘*p* value’ of Tables 1, 2 and 3. The correct Tables 1, 2 and 3 should be as follows,

The original article can be found online at <https://doi.org/10.1007/s00380-018-1218-1>.

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Table 1 Patient characteristics in all patients, non-CAD and CAD groups

	All patients (<i>n</i> = 393)	Non-CAD group (<i>n</i> = 182)	CAD group (<i>n</i> = 211)	<i>p</i> value non-CAD vs. CAD
Age, years	66 (59–73)	63 (56–70)	69 (61–75)	< 0.0001
Sex male, % (<i>n</i>)	51 (202)	45 (82)	57 (120)	0.019
BMI, kg/m ²	24 (22–26)	24 (22–26)	23 (21–26)	0.21
Family history, % (<i>n</i>)	26 (102)	24 (44)	27 (58)	0.46
Smoking, % (<i>n</i>)	38 (149)	33 (60)	42 (89)	0.061
HTN, % (<i>n</i>)	72 (283)	63 (115)	80 (168)	0.0003
DM, % (<i>n</i>)	23 (89)	16 (29)	28 (60)	0.003
DL, % (<i>n</i>)	67 (262)	62 (113)	71 (149)	0.074
CKD, % (<i>n</i>)	31 (124)	25 (46)	37 (78)	0.013
TG, mg/dl	117 (87–158)	109 (79–154)	124 (94–163)	0.017
LDL-C, mg/dl	115 ± 30	115 ± 30	114 ± 29	0.78
HDL-C, mg/dl	51 (44–62)	54 (45–66)	50 (43–59)	0.002
HbA1c, % (<i>n</i>)	5.7 (5.4–6.2)	5.7 (5.3–6.1)	5.9 (5.5–6.4)	0.0003
Fasting glucose, mg/dl	100 (93–113)	99 (93–107)	102 (93–121)	0.041
UA, mg/dl	5.4 (4.5–6.3)	5.4 (4.5–6.3)	5.4 (4.5–6.3)	0.93
eGFR, ml/min/1.73 m ²	67 (57–77)	70 (60–80)	64 (55–75)	0.002
PCSK9, ng/ml	213 (169–268)	203 (156–257)	223 (172–278)	0.006
Log PCSK9	5.35 ± 0.36	5.29 ± 0.39	5.40 ± 0.33	0.004
Medication				
ARB, % (<i>n</i>)	38 (149)	31 (56)	44 (93)	0.007
ACE-I, % (<i>n</i>)	3 (12)	2 (3)	4 (9)	0.12
CCB, % (<i>n</i>)	36 (141)	27 (50)	43 (91)	0.001
BB, % (<i>n</i>)	11 (43)	7 (12)	15 (31)	0.009
Diuretic, % (<i>n</i>)	10 (41)	9 (17)	11 (24)	0.51
Statin, % (<i>n</i>)	34 (134)	27 (50)	40 (84)	0.01
SU, % (<i>n</i>)	9 (39)	7 (12)	13 (27)	0.037
BG, % (<i>n</i>)	6 (24)	6 (11)	6 (13)	0.96
DPP4-I, % (<i>n</i>)	11 (43)	8 (14)	14 (29)	0.052

Continuous variables are expressed as mean ± SD. When continuous variables did not show a normal distribution, the variables are expressed as a median value and interquartile range

CAD coronary artery disease, BMI body mass index, HTN hypertension, DM diabetes mellitus, DL dyslipidemia, CKD chronic kidney disease, LDL-C low-density lipoprotein cholesterol, HDL-C high-density lipoprotein cholesterol, HbA1c glycosylated hemoglobin A1c, UA uric acid, eGFR estimated glomerular filtration rate, PCSK9 pro-protein convertase subtilisin/kexin type 9, ARB angiotensin II receptor blocker, ACE-I angiotensin-converting enzyme inhibitor, CCB calcium channel blocker, BB beta-blocker, DU diuretic, SU sulfonylurea, BG biguanide, DPP4-I dipeptidyl-peptidase 4 inhibitor

Table 2 Patient characteristics of all patients, the patients with non-CAD and CAD in the non-statin and statin groups

	Non-statin group (n = 259)			p value non-CAD vs. CAD	Statin group (n = 134)			p value non-CAD vs. CAD
	All patients (n = 259)	Non-CAD group (n = 132)	CAD group (n = 127)		All patients (n = 134)	Non-CAD group (n = 50)	CAD group (n = 84)	
Age, years	65 (58–73)	63 (55–70)	69 (60–75)	< 0.0001	67 (60–74)	64 (58–71)	69 (62–75)	0.059
Male, % (n)	52 (134)	45 (59)	59 (75)	0.021	51 (68)	46 (23)	54 (45)	0.40
BMI, kg/m ²	23 (21–26)	24 (22–26)	23 (21–26)	0.22	24 (22–26)	24 (22–27)	24 (22–26)	0.39
Family history, % (n)	24 (63)	25 (33)	24 (30)	0.80	29 (39)	22 (11)	33 (28)	0.16
Smoking, % (n)	39 (102)	33 (44)	46 (58)	0.042	35 (47)	32 (16)	37 (31)	0.57
HTN, % (n)	67 (173)	60 (79)	74 (94)	0.016	82 (110)**	72 (36)	88 (74)	0.019
DM, % (n)	18 (47)	14 (18)	23 (29)	0.055	31 (42)**	22 (11)	37 (31)	0.072
DL, % (n)	49 (128)	48 (63)	51 (65)	0.58	100 (134)**	100	100	
CKD, % (n)	31 (79)	24 (32)	37 (47)	0.026	34 (45)	26 (13)	37 (31)	0.19
TG, mg/dl	117 (87–158)	108 (79–154)	125 (96–162)	0.042	117 (90–163)	112 (78–156)	124 (93–166)	0.16
LDL-C, mg/dl	119 ± 30	117 ± 27	120 ± 32	0.362	107 ± 27**	110 ± 35	104 ± 23	0.27
HDL-C, mg/dl	51 (44–63)	53 (45–68)	49 (42–58)	0.005	52 (45–62)	54 (47–62)	51 (44–61)	0.31
HbA1c, %	5.7 (5.3–6.2)	5.6 (5.3–6.0)	5.8 (5.5–6.3)	0.002	5.9 (5.5–6.5)**	5.8 (5.6–6.3)	5.9 (5.5–6.8)	0.19
Fasting glucose, mg/dl	100 (93–112)	100 (94–108)	102 (93–118)	0.19	99 (93–116)	98 (92–105)	102 (93–127)	0.089
UA, mg/dl	5.4 (4.5–6.2)	5.3 (4.5–6.2)	5.4 (4.5–6.3)	0.61	5.6 (4.5–6.5)	5.7 (4.5–7.8)	5.5 (4.5–6.3)	0.22
eGFR, ml/min/1.73 m ²	68 (57–78)	70 (61–82)	65 (55–76)	0.019	64 (57–75)	68 (59–77)	64 (55–73)	0.064
PCSK9, ng/ml	196 (159–247)	182 (150–235)	213 (169–261)	0.003	252 (201–303)**	252 (210–294)	253 (197–304)	0.67
Log PCSK9	5.28 ± 0.34	5.21 ± 0.36	5.35 ± 0.31	0.0008	5.49 ± 0.37**	5.51 ± 0.40	5.47 ± 0.34	0.51
CAD, % (n)	49 (127)				63 (84)*			
VD 0		100 (132)	0			100	0	
VD 1		0	45 (57)			0	32 (27)	
VD 2+3		0	55 (70)			0	68 (57)	
Gensini score		2.5 (0–6)	15 (10–23)	< 0.0001		2.5 (0–6)	18 (13–27)	< 0.0001
Medication								
ARB, % (n)	29 (76)	26 (33)	34 (43)	0.12	54 (73)**	46 (23)	60 (50)	0.13
ACE-I, % (n)	2 (3)	2 (2)	2 (3)	0.62	5 (7)	2 (1)	7 (6)	0.17
CCB, % (n)	31 (81)	23 (30)	40 (51)	0.002	45 (60)**	40 (20)	48 (40)	0.39
BB, % (n)	8 (22)	7 (9)	10 (13)	0.32	16 (21)*	6 (3)	21 (18)	0.012
Diuretic, % (n)	10 (27)	11 (14)	10 (13)	0.92	10 (14)	6 (3)	13 (11)	0.18
SU, % (n)	7 (19)	6 (8)	9 (11)	0.42	15 (20)	8 (4)	19 (16)	0.071
BG, % (n)	4 (11)	5 (6)	4 (5)	0.81	10 (13)	10 (5)	10 (8)	0.93
DPP4-I, % (n)	9 (23)	8 (10)	10 (13)	0.45	15 (20)	8 (4)	19 (16)	0.071

Continuous variables are expressed as mean ± SD. When continuous variables did not show a normal distribution, the variables are expressed as a median value and interquartile range

CAD coronary artery disease, BMI body mass index, HTN hypertension, DM diabetes mellitus, DL dyslipidemia, CKD chronic kidney disease, LDL-C low-density lipoprotein cholesterol, HDL-C high-density lipoprotein cholesterol, HbA1c glycosylated hemoglobin A1c, UA uric acid, eGFR estimated glomerular filtration rate, PCSK9 pro-protein convertase subtilisin/kexin type 9, VD vessel disease (the number of significantly stenosed coronary vessels), ARB angiotensin II receptor blocker, ACE-I angiotensin-converting enzyme inhibitor, CCB calcium channel blocker, BB, beta-blocker, DU diuretic, SU sulfonylurea, BG biguanide, DPP4-I dipeptidyl-peptidase 4 inhibitor

* $p < 0.05$ vs. all patients in the non-statin group

** $p < 0.01$ vs. all patients in the non-statin group

Table 3 The univariable and multivariable logistic regression analysis regarding the association with CAD in all patients, the statin and non-statin groups

All patients						
Variables	Univariable			Multivariable		
	OR	95% CI	<i>p</i>	OR	95% CI	<i>p</i>
Age	1.05	1.03–1.07	< 0.0001	1.05	1.02–1.08	< 0.0001
Male	1.61	0.42–0.92	0.020	2.10	1.21–3.65	0.007
BMI	0.96	0.90–1.01	0.12	0.92	0.86–0.99	0.021
Family history	1.19	0.75–1.87	0.45	1.34	0.80–2.24	0.26
Smoking	1.48	0.98–2.24	0.06	1.12	0.65–1.94	0.67
HTN	2.28	1.45–3.57	0.0003	1.62	0.95–2.75	0.075
DM	2.10	1.28–3.45	0.003	2.20	1.24–3.91	0.006
CKD	1.73	1.12–2.68	0.013	1.11	0.67–1.85	0.69
Log PCSK9	2.27	1.27–4.01	0.004	2.65	1.36–5.14	0.003
Statin	1.75	1.14–2.67	0.010	1.45	0.87–2.40	0.15
HDL-C	0.98	0.96–0.99	0.0005	0.98	0.96–0.99	0.008
LDL-C	1.00	0.99–1.01	0.78	1.01	1.00–1.01	0.18
Statin group						
Variables	Univariable			Multivariable		
	OR	95% CI	<i>p</i>	OR	95% CI	<i>p</i>
Age	1.04	1.00–1.07	0.034	1.03	0.98–1.07	0.26
Male	1.35	0.67–2.73	0.40	1.44	0.52–3.98	0.48
BMI	0.37	0.057–2.43	0.30	0.88	0.77–1.00	0.047
Family history	1.77	0.79–3.98	0.16	2.24	0.89–5.62	0.078
Smoking	1.24	0.59–2.61	0.56	1.30	0.48–3.56	0.61
HTN	2.88	1.17–7.11	0.021	2.01	0.70–5.77	0.19
DM	2.07	0.93–4.63	0.068	3.31	1.24–8.84	0.013
CKD	1.66	0.78–3.69	0.20	1.46	0.57–3.75	0.43
Log PCSK9	0.72	0.27–1.91	0.51	0.66	0.22–1.98	0.45
HDL-C	1.00	0.97–1.02	0.69	0.99	0.96–1.02	0.60
LDL-C	0.99	0.98–1.02	0.27	0.99	0.98–1.01	0.37
Non-statin group						
Variables	Univariable			Multivariable		
	OR	95% CI	<i>p</i>	OR	95% CI	<i>p</i>
Age	1.05	1.03–1.08	< 0.0001	1.07	1.04–1.11	< 0.0001
Male	1.78	1.09–2.92	0.021	3.03	1.46–6.29	0.002
BMI	0.95	0.89–1.02	0.15	0.91	0.83–1.00	0.049
Family history	0.93	0.53–1.64	0.8	1.04	0.53–2.02	0.91
Smoking	1.68	1.02–2.78	0.042	1.16	0.57–2.37	0.68
HTN	1.91	1.13–3.24	0.015	1.51	0.80–2.85	0.21
DM	1.87	0.98–3.58	0.054	1.65	0.76–3.57	0.20
CKD	1.84	1.07–3.14	0.027	0.91	0.47–1.75	0.77
Log PCSK9	3.65	1.67–7.99	0.0007	6.23	2.44–15.9	< 0.0001
HDL-C	0.97	0.95–0.99	0.0006	0.97	0.95–0.99	0.003
LDL-C	1.00	1.00–1.01	0.38	1.01	1.00–1.02	0.022

CAD coronary artery disease, OR odds ratio, CI confidence Interval, BMI body mass index, HTN hypertension, DM diabetes mellitus, CKD chronic kidney disease, PCSK9 pro-protein convertase subtilisin/kexin type 9, LDL-C low-density lipoprotein cholesterol, HDL-C high-density lipoprotein cholesterol