



Premature Atrial Contractions and Their Determinants in a General Population of Japanese Men

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Supplementary Table 1. Negative Binomial Regression to Assess Variables Related to the Number of PACs per Hour After Excluding Participants With a History of Anti-Hypertensive Drug Intake (n=328)

Variables	Model 1		Model 2	
	Risk ratio* (95% CI)	P value	Risk ratio* (95% CI)	P value
Age (per 1-SD)	1.30 (1.12–1.51)	<0.001	1.25 (1.08–1.57)	<0.001
BMI (per 1-SD)	0.86 (0.73–1.02)	0.088	0.92 (0.73–1.16)	0.529
Height (per 1-SD)	0.94 (0.79–1.11)	0.495	0.92 (0.76–1.12)	0.434
LDL-C (per 1-SD)	0.99 (0.97–1.28)	0.224	0.99 (0.98–1.14)	0.120
Triglycerides (log, per 1-SD)	0.76 (0.60–0.96)	0.025	0.79 (0.65–0.97)	0.024
HDL-C (per 1-SD)	1.17 (0.97–1.42)	0.091	1.08 (0.85–1.38)	0.492
Mean HR (per 1-SD)	0.83 (0.69–1.03)	0.050	0.78 (0.65–0.94)	0.011
Diabetes mellitus (Yes vs. No)	0.77 (0.48–1.24)	0.293	0.98 (0.53–1.79)	0.948
Hypertension (Yes vs. No)	1.14 (0.76–1.73)	0.509	0.95 (0.60–1.50)	0.854
Physical activity (Yes vs. No)	0.76 (0.49–0.85)	0.049	0.71 (0.43–0.93)	0.021
Smoking				
Current vs. Never	1.72 (1.00–2.94)	0.046	1.62 (1.02–2.97)	0.044
Past vs. Never	0.90 (0.57–1.43)	0.674	0.84 (0.51–1.38)	0.502
Drinking				
Light vs. Never	2.65 (1.12–6.24)	0.025	2.63 (1.02–6.77)	0.044
Moderate vs. Never	1.23 (0.73–2.06)	0.420	1.16 (0.66–1.05)	0.590
Heavy vs. Never	2.69 (1.52–4.77)	<0.001	2.59 (1.37–4.89)	0.003
Past vs. Never	1.51 (0.81–2.81)	0.187	1.03 (0.48–2.19)	0.926
Lipid-lowering therapy (Yes vs. No)	0.78 (0.47–1.30)	0.356	1.23 (0.65–2.32)	0.520
No. of PVCs per hour	0.98 (0.71–1.35)	0.929	0.88 (0.82–1.41)	0.853

Model 1 is adjusted for age; Model 2 includes all variables simultaneously.

*Data are risk ratio per 1-SD increment for continuous variables or compared with the reference group for categorical variables. For current analysis, Age (per 1-SD) = 7.92 years; BMI (per 1-SD) = 2.70 kg/m²; Height (per 1-SD) = 0.05 meter; LDL-C (per 1-SD) = 30.5 mg/dL; Triglycerides (log per 1-SD) = 0.52; HDL-C (per 1-SD) = 17.3 mg/dL; Mean HR (per 1-SD) = 8.5 beats/min; No. of PVCs (per 1-

SD) = 2 counts/hour.

Diabetes mellitus was defined as fasting glucose of ≥ 126 mg/dL, hemoglobin A1c of $\geq 6.5\%$, or the use of any antidiabetic medication. Hypertension was defined as systolic blood pressure of ≥ 140 mm Hg, diastolic blood pressure of ≥ 90 mm Hg, or use of antihypertensive medication. The participants who exercised more than 10 minutes regularly over the current 3 months or more were defined as physically active.

PAC indicates premature atrial contraction; BMI, body mass index; HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol; HR, heart rate; PVC, premature ventricular contraction; SD, standard deviation.

Supplementary Table 2. Negative Binomial Regression to Assess Variables Related to the Number of PACs per Hour (n=517)

Variables	Model 1		Model 2	
	Risk ratio* (95% CI)	P value	Risk ratio* (95% CI)	P value
Age (per 10 years)	1.55 (1.29–1.88)	<0.001	1.45 (1.12–1.87)	<0.001
BMI (per 1kg/m²)	1.02 (0.97–1.07)	0.399	1.04 (0.96–1.07)	0.051
Height (per 0.1meter)	1.03 (1.01–1.06)	0.005	1.02 (1.01–1.05)	0.027
LDL-C (per 10 mg/dL)	0.95 (0.91–0.99)	0.031	0.98 (0.92–1.03)	0.499
Triglycerides (log, per 1unit)	0.67 (0.48–0.94)	0.023	0.69 (0.49–0.97)	0.024
HDL-C (per 10 mg/dL)	1.17 (1.06–1.28)	0.001	1.08 (0.96–1.22)	0.190
Mean HR (per 10 beats/min)	0.72 (0.60–0.87)	<0.001	0.65 (0.54–0.78)	<0.001
Diabetes mellitus (Yes vs. No)	0.86 (0.61–1.22)	0.414	0.74 (0.50–1.11)	0.151
Hypertension (Yes vs. No)	1.24 (0.91–1.69)	0.156	0.93 (0.65–1.34)	0.727
Physical activity (Yes vs. No)	0.60 (0.42–0.85)	0.004	0.63 (0.43–0.93)	0.021
Smoking				
Current vs. Never	1.38 (0.87–2.16)	0.160	1.69 (1.06–2.69)	0.027
Past vs. Never	0.97 (0.66–1.41)	0.874	0.75 (0.50–1.12)	0.171
Drinking				
Light vs. Never	1.52 (0.70–3.30)	0.283	2.13 (0.97–4.65)	0.056
Moderate vs. Never	1.64 (1.06–2.54)	0.023	1.97 (1.23–3.16)	0.004
Heavy vs. Never	1.42 (0.88–2.28)	0.141	1.84 (1.12–3.01)	0.014
Past vs. Never	1.33 (0.79–2.25)	0.278	1.25 (0.72–2.17)	0.426
Lipid-lowering therapy (Yes vs. No)	1.36 (0.97–1.92)	0.069	1.40 (0.92–2.13)	0.114
No. of PVCs (per 10 counts per hour)	3.50 (0.36–2.05)	0.287	1.43 (0.28–1.87)	0.799

Model 1 is adjusted for age; Model 2 includes all variables simultaneously.

*Data are risk ratio per 10 unit increment in age [year], HDL-C [mg/dL], LDL-C [mg/dL], and mean heart rate [beats/min]); per 1-unit increment in BMI [kg/m²] and TG [log]; per 0.1 unit increment in height [meter] as continuous variables or compared with the reference group for categorical variables. Diabetes mellitus was defined as fasting glucose of ≥ 126 mg/dL, hemoglobin A1c of $\geq 6.5\%$, or the

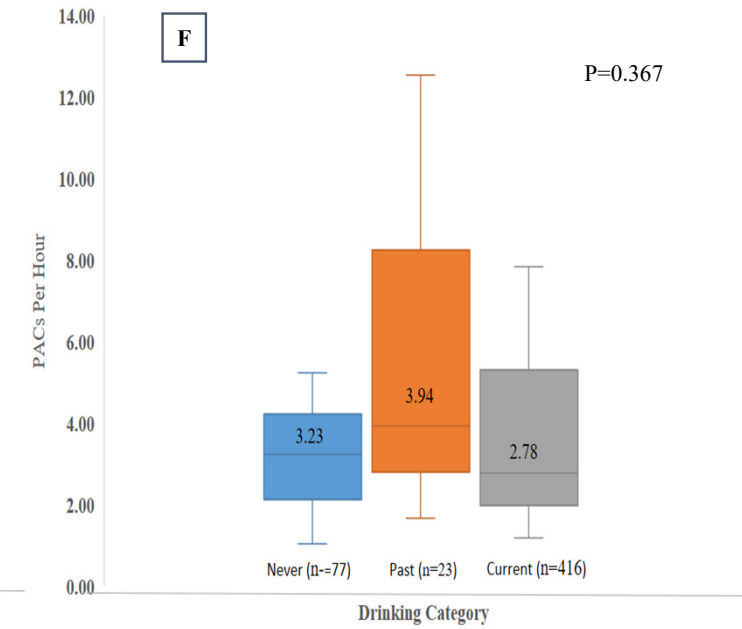
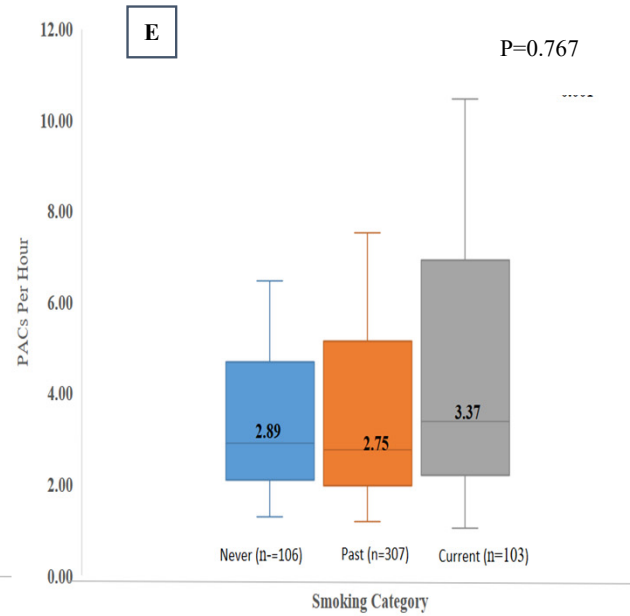
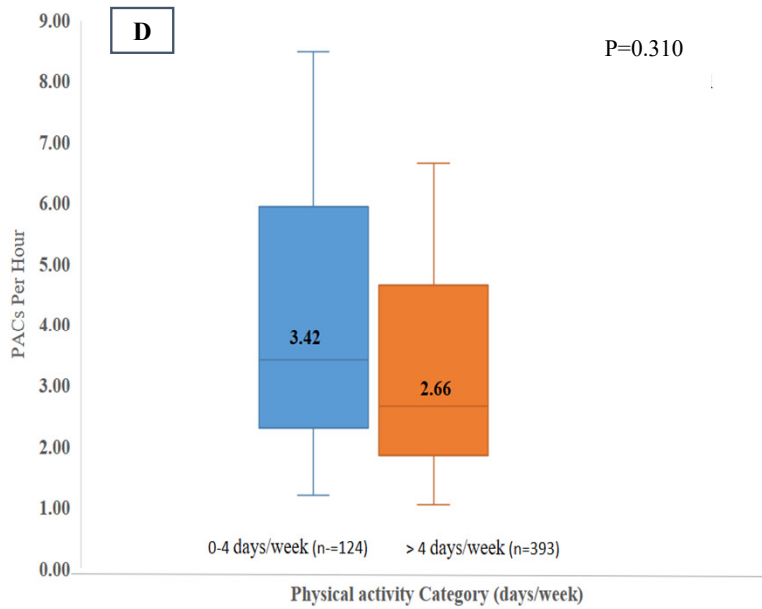
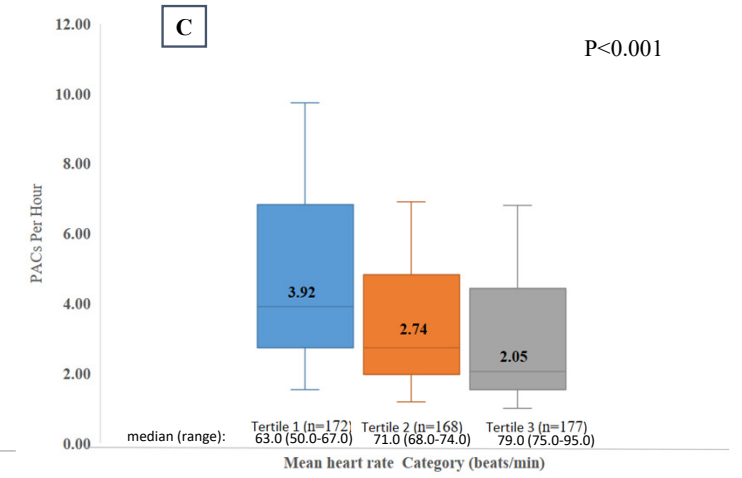
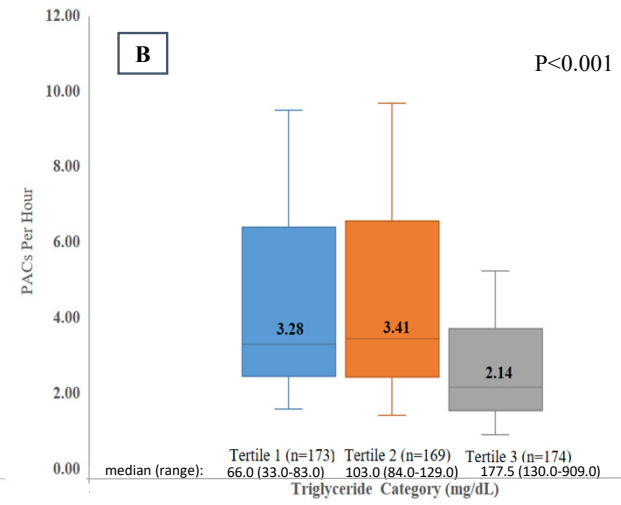
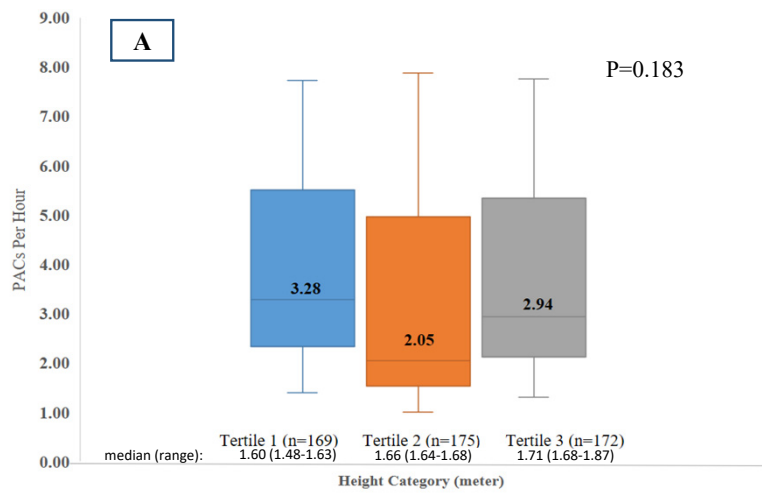
use of any antidiabetic medication. Hypertension was defined as systolic blood pressure of ≥ 140 mm Hg, diastolic blood pressure of ≥ 90 mm Hg, or use of antihypertensive medication. The participants who exercised more than 10 minutes regularly over the current 3 months or more were defined as physically active.

PAC indicates premature atrial contraction; BMI, body mass index; HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol; HR, heart rate; PVC, premature ventricular contraction; SD, standard deviation.

Supplementary Figure. (A-F) The number of PACs was stratified by height, mean heart rate, triglycerides, physical activity, smoking, and drinking categories. Height, mean heart rate, triglycerides were categorized in tertile 1, tertile 2, and tertile 3; physical activity was categorized in 0-4 days per week and >4 days per week of leisure-time physical activity; smoking and drinking habit was categorized as “current” (smoke/consume alcohol in the last 30 days), “past” (those who quit 30 days prior to the study), or “never” (those who never smoke/consume alcohol).

Data are median values of PACs per hour; whiskers represent the interquartile ranges. *P* values were estimated on a Kruskal-Wallis test across categories.

PAC indicates premature atrial contraction.



Supplementary file.

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