

# **SUPPLEMENTAL MATERIAL**

**Table S1. Indices of the coronary artery calcium score according to morning hypertension subtypes**

	Subtype I	Subtype II	Subtype III	P value
CACS, AU	168±415	185±346	230±482	0.145
Log CACS	1.11±1.13	1.24±1.18	1.37±1.15*	0.007
CACS > 300AU, n(%)	102 (16.7)	19 (21.3)	85 (19.8)	0.328
CACS > 400AU, n(%)	82 (13.4)	14 (15.7)	71 (16.6)	0.369
CACS > 1000AU, n(%)	28 (4.6)	4 (4.5)	34 (7.9)	0.067

Data are presented as mean ± standard deviation or number (percentage).

\*p-value <0.05 in the *t*-test (subtype II or III vs. I), #p-value <0.05 in the *t*-test (subtype III vs. II)

CACS, coronary artery calcium score

**Table S2. Multivariate logistic regression analysis for central hypertension**

<b>Model Y+ cfPWV</b>	<b>OR (95% CI)</b>	<b>p-value</b>
Brachial SBP, mmHg	1.097 (1.078–1.116)	< 0.001
Heart rate, /min	0.966 (0.948–0.985)	< 0.001
ACEI/ARB	1.726 (1.133–2.622)	0.011
Chronic kidney disease	1.910 (1.039–3.510)	0.037
cfPWV, m/sec	1.216 (1.096–1.349)	< 0.001
Subtype II vs. I	1.186 (0.622–2.260)	0.605
Subtype III vs. I	1.806 (1.133–2.881)	0.013

Model Y as in Table 4

Central hypertension is defined as central SBP  $\geq$  130 mmHg or central DBP  $\geq$  90 mmHg.

SBP, systolic blood pressure; cfPWV, carotid to femoral PWV; ACEI/ARB, angiotensin converting enzyme inhibitor/angiotensin II receptor blocker

**Table S3. Multivariate logistic regression analysis for high-risk cfPWV (10 m/s) according to heart rate**

<b>Heart rate &gt;65/min (Model Y + Day SBP)</b>	<b>OR (95% CI)</b>	<b>p-value</b>
Age, years old	1.095 (1.065–1.125)	< 0.001
Brachial SBP, mmHg	1.050 (1.031–1.070)	< 0.001
Heart rate, /min	1.034 (1.005–1.063)	0.020
Diabetes	1.822 (1.040–3.194)	0.036
Subtype II vs. I	1.492 (0.634–3.511)	0.359
Subtype III vs. I	1.920 (1.014–3.634)	0.045
<b>Heart rate ≤65/min (Model Y + Day SBP)</b>	<b>OR (95% CI)</b>	<b>p-value</b>
Age, years old	1.119 (1.076–1.164)	< 0.001
Brachial SBP, mmHg	1.040 (1.019–1.061)	< 0.001
Heart rate, /min	1.100 (1.038–1.167)	0.001
Chronic kidney disease	0.308 (0.110–0.860)	0.025
Beta blocker	2.732 (1.407–5.305)	0.003
Creatinine, mg/dL	2.450 (1.061–5.657)	0.036
Subtype II vs. I	0.970 (0.357–2.634)	0.953
Subtype III vs. I	1.032 (0.497–2.145)	0.932

Model Y as in Table 4.

High-risk cfPWV is defined as aortic cfPWV > 10 m/s.

SBP, systolic blood pressure; cfPWV, carotid to femoral PWV

**Table S4. Multivariate logistic regression analysis for high-risk cfPWV (12 m/s)**

<b>Model Y</b>	<b>OR (95% CI)</b>	<b>p-value</b>
Age, years old	1.104 (1.068–1.141)	< 0.001
Brachial SBP, mmHg	1.059 (1.041–1.077)	< 0.001
Heart rate, /min	1.041 (1.018–1.065)	0.001
Diabetes	2.442 (1.360–4.386)	0.003
Glucose, mg/dL	1.011 (1.002–1.019)	0.011
Subtype II vs. I	0.826 (0.326–2.092)	0.686
Subtype III vs. I	1.863 (1.077–3.221)	0.026

Model Y as in Table 4

SBP, systolic blood pressure; cfPWV, carotid to femoral PWV

**Table S5. Multivariate logistic regression analysis for vascular damage marker**

<b>Model Y</b>	<b>OR (95% CI)</b>	<b>p-value</b>
CACS > 300AU		
Subtype III vs. I	0.947 (0.611–1.469)	0.809
ABI < 0.9		
Subtype III vs. I	2.250 (0.792–6.390)	0.128
baPWV > 1800cm/s		
Subtype III vs. I	1.044 (0.655–1.666)	0.856

Model Y as in Table 4

CACS, coronary artery calcium score; baPWV, brachial to ankle PWV; ABI, ankle-brachial index