

Supplementary materials

**Supplementary Table S1** Correlation of PWV with patient characteristics, blood pressure parameters and left ventricular mass index within coarctation of aorta patient group.

Variables	PWV, m/s <sup>a</sup>		PWV-SDS age		PWV-SDS height	
	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>
Age, years	<b>0.02</b>	0.516	0.38	0.202	0.38	0.203
Age of repair, month	0.23	0.280	0.87	-0.037	0.89	0.030
Duration of follow-up, month	0.23	0.281	0.76	0.070	0.86	0.040
Height, cm	<b>0.056</b>	0.434	0.57	0.131	0.74	0.075
Height-SDS	0.40	-0.196	0.36	-0.204	0.09	-0.374
BMI-SDS	0.51	-0.157	0.49	-0.160	0.25	-0.264
Findings of recoarctation						
ALG, mmHg	0.77	0.068	0.75	-0.073	0.84	-0.047
Gradient-echo, mmHg	0.39	-0.203	0.27	-0.249	0.52	-0.148
Velocity-echo, m/s	0.37	-0.214	0.160	-0.318	0.33	-0.223
BP measurements						
Office SBP	<b>0.003</b>	0.630	0.06	0.415	0.09	0.373
Office DBP	0.31	0.235	0.28	0.247	0.09	0.383
Office SBP-SDS	<b>0.021</b>	0.514	0.11	0.356	0.12	0.344
Office DBP-SDS	0.60	-0.125	0.93	-0.019	0.48	0.162
Day-time SBP	<b>0.009</b>	0.570	0.15	0.326	0.21	0.283
Day-time DBP	0.35	0.219	0.14	0.336	0.24	0.266
Night-time SBP	<b>0.01</b>	0.561	0.29	0.244	0.23	0.276
Night-time DBP	0.10	0.377	0.11	0.353	0.07	0.393
Day-time SBP-SDS	0.13	0.352	0.42	0.183	0.45	0.173
Day-time DBP-SDS	0.36	0.215	0.10	0.361	0.20	0.292
Night-time SBP-SDS	0.12	0.361	0.66	0.101	0.49	0.161
Night-time DBP-SDS	0.23	0.280	0.12	0.347	0.08	0.390
Day SBP load, %	<b>0.03</b>	0.495	0.29	0.241	0.28	0.246
Day DBP load, %	0.43	0.184	0.38	0.203	0.29	0.240
Night SBP load, %	0.11	0.362	0.78	0.065	0.52	0.149
Night DBP load, %	0.29	0.255	0.50	0.155	0.44	0.176
Dipping SBP, %	0.90	0.030	0.49	0.158	0.89	0.032
Dipping DBP, %	0.49	-0.165	0.62	-0.114	0.24	-0.266
Echocardiography						
LVMI, g/m <sup>2.7</sup>	0.47	0.170	0.48	0.162	0.35	0.212

<sup>a</sup>PWV was measured in 20 of the CoA patients. Spearman's nonparametric correlation test was performed.

PWV, pulse wave velocity; SDS, standard deviation score; BMI, body mass index; ALG, arm leg gradient; BP, blood pressure; SBP, systolic blood pressure; DBP, diastolic blood pressure; LVMI, left ventricular mass index.

**Supplementary Table S2** Comparison of CoA patients with and without left ventricular hypertrophy

Variables	LVH (-) (n=19)	LVH (+) (n=6)	p value*
Age, years	13.9±3.66	12.1±2.24	0.25
Male gender, n (%)	63%	83%	0.62
Age of repair, month	11(3.0;33.0)	3.5(0.91;6.25)	0.14
Duration of follow-up, month	142±45	139±28	0.51
Bicuspid aortic valve, n(%)	8(42)	5(83)	0.16
Height-SDS	-0.11(-1.31;0.78)	-0.63(-1.34;-0.01)	0.40
BMI-SDS	-0.26(-0.42;0.87)	-0.01(-0.68;1.01)	0.78
Findings of recoarctation			
ALG, mmHg	-3.0(-11;0.0)	-4.5(-12;-2.2)	0.63
Gradient-echo, mmHg	22(18;28)	25.5(18;31)	0.67
Velocity-echo, m/s	2.4(2.0;2.6)	2.5(2.0;2.7)	0.63
BP measurements			
Office SBP-SDS	0.23(-0.13;1.24)	1.24(0.32;1.76)	0.12
Office DBP-SDS	0.03(-0.21;0.39)	0.42(-0.09;0.93)	0.20
Day-time SBP-SDS	0.75(-0.46;1.73)	1.48 (1.18;2.66)	0.08
Day-time DBP-SDS	-0.13(-1.05;0.91)	0.23(-0.71;0.83)	0.50
Night-time SBP-SDS	1.38(0.37;2.10)	1.82(0.84;2.64)	0.33
Night-time DBP-SDS	0.64(0.20;1.84)	1.12(0.06;1.43)	0.84
Day SBP load, %	22(4.9;52)	36(23;76)	0.16
Day DBP load, %	5.3(2.6;16.7)	11(4.6;14)	0.35
Night SBP load, %	37(10;64)	64(14;88)	0.26
Night DBP load, %	16(7.1;41)	17(7.1;33)	0.84
Dipping SBP, %	7.5(6.0;13.3)	10(8.0;16)	0.32
Dipping DBP, %	13(10.5;20)	15(11;20)	0.75
Cardiovascular measures			
PWV, m/s <sup>a</sup>	4.86(4.39;6.05)	5.25(4.54;5.82)	0.78
PWV-SDS age	-0.18(-0.78;0.93)	0.93(-0.25;1.03)	0.32
PWV-SDS height	0.01(-0.95;1.05)	1.0(-0.20;1.30)	0.28
EF, %	73±5.7	75±6.0	0.32
FS, %	39±4.2	40±4.6	0.65
IVSd, mm	8.3±1.32	8.7±2.19	0.70
LVDd, mm	43.3±7.5	46.4±5.2	0.52
LVPWd, mm	7.8±1.07	7.5±0.70	0.50
LVM, g	112±40	124±36	0.48
LVMI, g/m <sup>2.7</sup>	32.3±5.48	43.7±3.40	<b>&lt;0.001</b>

\*Mann Whitney U and Fisher's Exact tests were performed. Data was shown as mean±standard deviation score, median (25th; 75th p) or n(%).

<sup>a</sup>PWV was measured in 4 and 16 patients with and without left ventricular hypertrophy, respectively.

LVH, left ventricular hypertrophy; SDS, standard deviation score; BMI, body mass index; ALG, arm leg gradient; BP, blood pressure; SBP, systolic blood pressure; DBP, diastolic blood pressure; PWV, pulse wave velocity; EF, , ejection fraction; FS, fractional shortening; IVSd, interventricular septum diastolic diameter; LVDd, left ventricular diastolic diameter, LVPWd, left ventricular posterior wall diastolic diameter; LVM, left ventricular mass; LVMI, left ventricular mass index.