

Effects of short-term moderate intensity exercise on the serum metabolome in older adults: a pilot randomized controlled trial.

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Supplementary Table 1: Comparison of echocardiographic parameters after the intervention period in the Control and Exercise groups.

	Control (n=15)	Intervention (n=14)	
	Post	Post	p-value
IVSd, cm	0.79 (0.11)	0.72 (0.08)	0.112
LVIDd, cm	4.37 (0.41)	4.57 (0.39)	0.451
LVIDs, cm	2.80 (0.3)	2.93 (0.42)	0.331
LVPWd, cm	0.71 (0.06)	0.75 (0.08)	0.123
LVPWs, cm	1.20 (0.19)	1.19 (0.17)	0.856
LVOT, cm	2.03 (0.08)	2.09 (0.14)	0.377
AO, cm	2.80 (0.27)	2.92 (0.52)	0.960
LA, cm	3.24 (0.64)	3.51 (0.45)	0.247
LVEF, %	64.73 (2.79)	63.14 (3.48)	0.252
LVFS, %	35.33 (6.40)	37.14 (7.26)	0.561
LV mass, g	100.7 (21.7)	106.0 (20.5)	0.780
LV mass index, g/m ²	62.5 (12.2)	63.2 (7.8)	0.880
MV DT, ms	196.2 (21.2)	198.8 (27.6)	0.949
PASP, mmHg	21.3 (2.5)	21.2 (3.1)	0.979

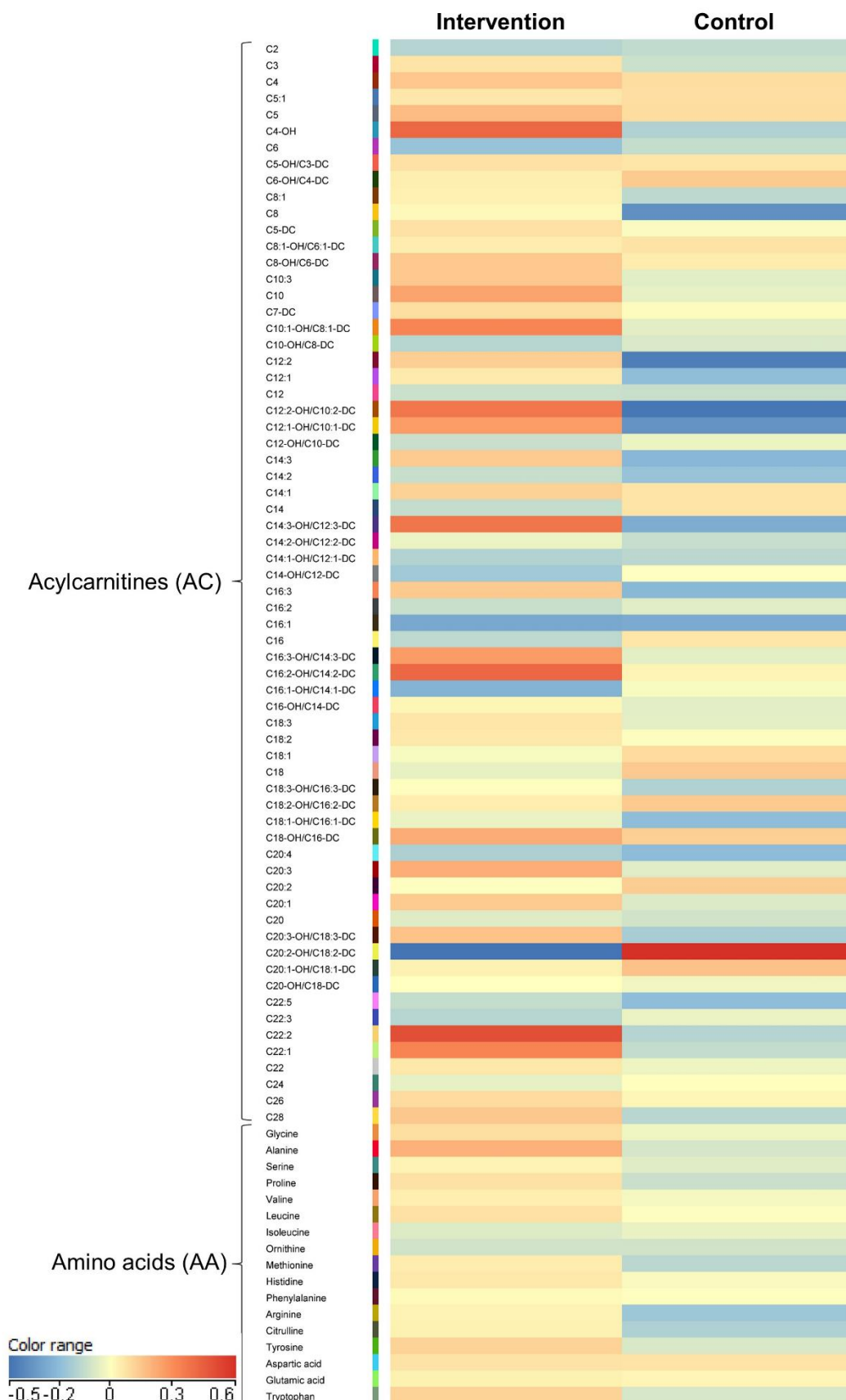
Supplementary Table 1: Comparison of echocardiographic parameters after the intervention period in the Control and Exercise groups. Values are shown in mean (standard deviation). Mann Whitney U tests were used for comparisons. P-values are two-tailed. AO indicates aortic outflow tract diameter; IVSd, Interventricular septum end-diastolic diameter; LA, Left atrium diameter; LVEF, Left ventricular ejection fraction; LVFS, Left ventricular fractional shortening; LVIDd, Left ventricular internal diameter in diastole; LVIDs, Left ventricular internal diameter in systole; LVOT, Left ventricular outflow tract diameter; LVPWd, Left ventricular posterior wall thickness in diastole; LVPWs, Left ventricular posterior wall thickness in systole; MV DT, Mitral valve deceleration time; PASP, Pulmonary artery systolic pressure.

Supplementary Table 2. Age-adjusted change in Lateral e' (cm/s)

	Age-adjusted mean difference (cm/s)	Unstandardized B coefficient	Standardized beta coefficient	Age-adjusted p-value
Control group (n=15)	-1.41 (2.23)	-0.097	-0.16	0.585
Intervention group (n=14)	0.098 (2.55)	0.42	0.73	0.003

Supplementary Table 2. Age-adjusted change in Lateral e' (cm/s). Values are shown as mean (standard deviation). Lateral e' changes before and after the study period in Control and Intervention groups were age-adjusted using multiple regression. P-values are two-sided. Lateral e' indicates early diastolic lateral mitral annulus peak velocity.

Heatmap of Metabolite Changes



Supplementary Figure 1. Heatmap Showing Metabolite Changes. Serum samples were collected from subjects before and after the intervention. Acyl-carnitine and amino acids were determined for all samples. Measurements were taken from distinct samples. Post/pre fold-change was determined for each metabolite from every subject. The heatmap compares the average metabolite level for either no intervention or exercise to the average metabolite level for all subjects. Subjects are grouped along the y-axis according to Control (n=15) vs Intervention (n=14). Dark blue indicates strong reduction in metabolite level with intervention, Red indicates strong increase in metabolite with intervention.