

Figure 1- Figure supplement 4. Echocardiography measurements of cardiac function and ventricular dimensions.

Experiment groups	IVS,d (mm)	IVS,s (mm)	LVID,d (mm)	LVID,s (mm)	LVPW,d (mm)	LVPW,s (mm)	LV Vol,d (μl)	LV Vol,s (μl)	LV mass (mg)	FS (%)
6 weeks of treadmill running										
EXE (n=5); 3 mo old	1.02±0.14	1.33±0.13	3.84±0.10	2.56±0.12 [†]	0.74±0.05	1.25±0.05	63.8±4.01	23.9±2.73 [†]	103.6±19.1	33.5±2.3
SED (n=5); 3 mo old	0.89±0.07	1.13±0.11	3.93±0.05	2.94±0.10	0.89±0.09	1.22±0.13	67.2±1.85	33.5±2.83	106.9±4.4	25.3±1.9
14 weeks of high fat diet feeding										
HFD (n=5); 3 mo old	1.11±0.04 [†]	1.39±0.06	3.92±0.13	3.10±0.21	0.86±0.03 [†]	1.09±0.08	67.2±5.32	39.3±6.5	121.7±5.2	21.1±3.3 [†]
CHOW (n=5); 3 mo old	0.93±0.05	1.41±0.03	4.19±0.08	2.96±0.08	0.75±0.04	1.05±0.15	78.5±3.54	34.2±2.4	107.9±3.8	29.4±1.6
18 months of aging										
AGED (n=6); 18 mo old	1.05±0.03 [†]	1.39±0.06 [†]	4.16±0.11	3.31±0.13 [†]	1.09±0.06 [†]	1.34±0.06 [†]	77.2±4.4	44.9±4.1 [†]	150.1±9.1 [†]	20.7±1.6 [†]
YOUNG (n=6); 2 mo old	0.85±0.04	1.19±0.06	3.94±0.10	2.84±0.13	0.77±0.06	1.13±0.03	68.1±4.4	31.0±3.3	93.8±3.9	27.9±1.7
Trans-aortic constriction: Week 0-6										
Sham(n=5);Week 0	0.78±0.03	1.12±0.03	3.50±0.06	2.31±0.05	0.79±0.01	1.19±0.03	51.0±2.0	18.2±1.2	73.5±1.6	34.1±0.8
TAC (n=10);Week 0	0.77±0.03	1.10±0.04	3.67±0.12	2.57±0.13	0.81±0.02	1.20±0.03	58.1±5.0	24.8±3.6	80.1±3.1	30.4±1.3
Sham(n=5);Week 1	0.73±0.03	1.07±0.06	3.88±0.09	2.74±0.12	0.75±0.03	1.09±0.05	65.4±3.7	28.4±3.1	80.1±2.2	29.4±1.9
TAC (n=10);Week 1	0.87±0.04 [†]	1.18±0.06	3.92±0.12	3.03±0.18	0.98±0.06 [†]	1.25±0.07	67.6±5.1	37.8±5.0	111.6±7.1 [†]	23.2±2.3
Sham(n=5);Week 2	0.70±0.04	1.07±0.05	3.89±0.06	2.63±0.07	0.76±0.02	1.11±0.04	65.6±2.8	25.6±1.8	79.3±3.2	32.4±1.4
TAC (n=10);Week 2	0.87±0.04 [†]	1.14±0.05	4.12±0.15	3.34±0.21 [†]	1.02±0.03 [†]	1.27±0.04 [†]	76.9±7.3	48.0±7.4 [†]	124.4±6.2 [†]	19.5±2.6 [†]
TAC (n=5); Week 3	0.97±0.04 [†]	1.17±0.04	4.38±0.19 [†]	3.77±0.16	1.08±0.06 [†]	1.29±0.07	87.8±9.8	61.4±6.6 [†]	153.6±12.2 [†]	13.8±0.9 [†]
TAC (n=5); Week 4	0.92±0.05 [†]	1.20±0.06	4.60±0.23 [†]	4.04±0.24	1.25±0.10 [†]	1.37±0.09	99.0±13 [†]	72.8±11 [†]	178.3±9.9	12.4±0.8 [†]
TAC (n=5); Week 5	0.89±0.10 [†]	1.15±0.11	4.92±0.07 [†]	4.40±0.09	1.00±0.05 [†]	1.12±0.03 [†]	114.0±4 [†]	87.8±4.3 [†]	165.6±10	10.6±1.4 [†]
TAC (n=5); Week 6	0.81±0.06	0.96±0.08	5.15±0.22 [†]	4.82±0.24	0.98±0.09 [†]	1.01±0.09	127.8±13 [†]	110.2±13 [†]	164.9±7.9	6.4±0.8 [†]

mo: Months; **IVS,d:** Interventricular septum thickness at end-diastole; **IVS,s:** Interventricular septum thickness at end-systole; **LVID,d:** Left ventricular internal dimension at end-diastole; **LVID,s:** Left ventricular internal dimension at end-systole; **LVPW,d:** Left ventricular posterior wall thickness at end-diastole; **LVPW,s:** Left ventricular posterior wall thickness at end-systole; **LV Vol, d:** Left ventricular volume at end-diastole; **LV Vol,s:** Left ventricular volume at end-systole; **LV mass:** Left ventricular mass; **FS:** Fractional shortening.

Data are mean±SEM. Student *t* test was used, † p<0.05.