

Supplementary Table 2. Echocardiographic Doppler measurements of blood flow across the mitral valve of 10 week old male SMGRKO mice and littermate controls. Values are means \pm SEM with number indicated in brackets. * p <0.05, ** p <0.01 (Unpaired t-test).

Doppler measurement (Unit)	Sex	Control	SMGRKO
Peak E Wave Velocity (mm/s)	Male	860 \pm 37 (11)	918 \pm 32 (16)
	Female	955 \pm 23 (11)	891 \pm 38 (11)
Peak A Wave Velocity(mm/s)	Male	580 \pm 24 (11)	638 \pm 24 (15)
	Female	485 \pm 27 (12)	416 \pm 28 (11)
E/A Wave Ratio	Male	1.50 \pm 0.07 (11)	1.42 \pm 0.06 (14)
	Female	1.92 \pm 0.09 (11)	2.10 \pm 0.11 (10)
E wave Deceleration (mm/s ²)	Male	32567 \pm 1925 (10)	36654 \pm 1618 (16)
	Female	39712 \pm 1749 (12)	44320 \pm 3865 (11)
MDI = $\frac{\text{E wave Decel. Time}}{\text{Peak E wave velocity}}$ (ms/[mm/s])	Male	0.031 \pm 0.002 (10)	0.029 \pm 0.001 (15)
	Female	0.025 \pm 0.001 (12)	0.022 \pm 0.002 (10)
Pressure Half Time	Male	7.08 \pm 0.34 (10)	6.48 \pm 0.22 (14)
	Female	6.26 \pm 0.27 (11)	5.56 \pm 0.33 (11)
Myocardial Performance Index (Arbitrary units)	Male	0.64 \pm 0.03 (11)	0.73 \pm 0.02 (16) *
	Female	0.56 \pm 0.03 (12)	0.65 \pm 0.03 (11)
Isovolumetric Contraction Time (ms)	Male	12.9 \pm 0.8 (11)	15.5 \pm 0.6 (15) *
	Female	11.8 \pm 0.5 (11)	14.8 \pm 0.8 (11) **
Ejection Time (ms)	Male	42.7 \pm 1.1 (11)	40.44 \pm 0.82 (15)
	Female	45.5 \pm 0.8 (11)	47.0 \pm 0.90 (10)
Isovolumetric Relaxation Time (ms)	Male	14.4 \pm 1.1 (11)	13.7 \pm 0.4 (16)
	Female	13.5 \pm 0.5 (12)	15.2 \pm 0.7 (10)
Heart Rate (BPM)	Male	482 \pm 17 (11)	464 \pm 14 (15)
	Female	454 \pm 9 (12)	420 \pm 8 (10) *

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