

Supplemental Data Table 1. PV loop assessment

Treatment	IV Placebo/ TE Placebo		IV Placebo/ TE MSC		IV MSC/ TE Placebo		IV MSC/ TE MSC		Baseline	Dobutamine
	Pre-Dobutamine	Dobutamine	Pre-Dobutamine	Dobutamine	Pre-Dobutamine	Dobutamine	Pre-Dobutamine	Dobutamine	p=	p=
Heart Rate (BPM)	83 +/-5	140 +/-8	88 +/-5	134 +/-10	86 +/-5	135 +/-8	86 +/-5	140 +/-8	0.91	0.94
End Systolic Pressure (mmHg)	66.3 +/-3.3	97.9 +/-4.8	70.1 +/-3.6	104 +/-5.9	65.0 +/-3.3	96.6 +/-4.8	63.3 +/-3.3	64.5 +/-4.8	0.55	0.65
End Diastolic Pressure (mmHg)	5.5 +/-1.3	4.4 +/-1.4	5.7 +/-1.4	3.8 +/-1.7	2.9 +/-1.3	1.9 +/-1.4	3.5 +/-1.3	2.0 +/-1.4	0.34	0.55
Pmax (mmHg)	70.5 +/-3.2	106.7 +/-5.4	74.1 +/-3.5	111.7 +/-6.6	69.0 +/-3.2	108.4 +/-5.4	68.3 +/-3.2	107 +/-5.4	0.62	0.94
Pmin (mmHg)	-0.7 +/-0.9	-2.4 +/-1.2	-0.1 +/-1.0	-2.1 +/-1.4	-1.4 +/-0.9	-3.1 +/-1.2	-1.8 +/-0.9	-2.3 +/-1.2	0.58	0.95
dPpmax (mmHg/sec)	822.8 +/-85.3	2389.2 +/-178.8	938.5 +/-93.4	2448.8 +/-219.0	918.4 +/-85.3	2463.2 +/-178.8	916 +/-85.3	2530.4 +/-178.8	0.78	0.96
dPmin (mmHg/sec)	-856.5 +/-60.2	-1532.8 +/-116.3	-901.6 +/-66.0	-1594.1 +/-142.4	-828.6 +/-60.2	-1406 +/-116.3	870 +/-60.2	-1541.5 +/-116.3	0.87	0.74
Vmax (mL)	138.4 +/-13.4	114.6 +/-14.6	133 +/-14.6	97.4 +/-17.9	108 +/-13.4	111.8 +/-14.6	123 +/-13.4	118.3 +/-14.6	0.42	0.83
Vmin (mL)	71.5 +/-8.9	55.2 +/-8.4	81.5 +/-9.7	57.1 +/-10.3	52.2 +/-8.9	47.7 +/-8.4	62.3 +/-8.9	45.1 +/-8.4	0.17	0.75
End Systolic Volume (mL)	85.1 +/-10.5	68.8 +/-8.5	87.6 +/-11.5	61.2 +/-10.4	59.4 +/-10.5	56.3 +/-8.5	72.8 +/-10.5	55.9 +/-8.5	0.25	0.69
End Diastolic Volume (mL)	133.1 +/-10.8	108.3 +/-13.7	126.3 +/-11.8	95.2 +/-16.7	100.0 +/-10.8	101.1 +/-13.7	118 +/-10.8	107.6 +/-13.7	0.19	0.92
Stroke Volume (mL)	48.0 +/-5.1	39.6 +/-9.0	38.7 +/-5.6	33.9 +/-11.1	40.5 +/-5.1	44.8 +/-9.0	45.3 +/-5.1	51.8 +/-9.0	0.58	0.62
Cardiac Output (L/min)	4.0 +/-0.5	5.3 +/-0.1	3.4 +/-0.6	4.4 +/-0.2	3.5 +/-0.5	6.0 +/-0.1	3.9 +/-0.5	7.6 +/-0.1	0.81	0.55
Ejection Fraction (%)	36.1 +/-5.2	34.8 +/-5.2	31.4 +/-5.7	35.7 +/-6.4	44.0 +/-5.2	46.6 +/-5.2	38.4 +/-5.2	46.1 +/-5.2	0.44	0.28
Stroke Work (mJoules)	375.7 +/-56.8	489.8 +/-108.5	306 +/-62.3	385.8 +/-132.9	321 +/-56.8	542.8 +/-108.5	350.1 +/-56.8	617.1 +/-108.5	0.84	0.59
MaxPwr (mWatt)	5513.2 +/-1231.9	29573 +/-4810	7901 +/-1349.5	35955 +/-5892	7143.1 +/-1231.9	35029 +/-4810	6993.2 +/-1231.9	25934 +/-4810	0.61	0.76
piPwr (mWatt/mL)	0.3 +/-0.2	2.9 +/-1.1	0.5 +/-0.2	4.5 +/-1.3	0.9 +/-0.2	4.7 +/-1.1	0.6 +/-0.2	4.2 +/-1.1	0.16	0.65

EA (mmHg/mL)	1.5 +/-0.2	3.3 +/-0.5	1.9 +/-0.2	3.3 +/-0.6	1.8 +/-0.2	2.8 +/-0.5	1.5 +/-0.2	2.3 +/-0.5	0.37	0.54
PVA (mJoules))	790.8 +/-141.7	1025.6 +/-165.8	604.6 +/-173.5	657.4 +/-203.1	528.5 +/-141.7	936.2 +/-165.8	630.1 +/-141.7	909.5 +/-165.8	0.62	0.57
PE (mJoules)	415.1 +/-99.1	535.8 +/-104.6	303.0 +/-121.4	271.5 +/-128.1	206.9 +/-99.1	393.4 +/-104.6	280.0 +/-99.1	459.1 +/-104.6	0.53	0.45
Eff (%)	55.6 +/-10.6	51.8 +/-6.3	63.0 +/-13.0	66.8 +/-7.8	67.0 +/-10.6	56.7 +/-6.3	68.6 +/-10.6	59.5 +/-6.3	0.82	0.52
TauW (msec)	35.7 +/-5.6	20.6 +/-3.0	30.3 +/-6.1	25.2 +/-3.7	38.7 +/-5.6	22.7 +/-3.0	34.7 +/-5.6	16.7 +/-3.0	0.78	0.33
TauL (msec)	108.9 +/-27.0	30.5 +/-21.1	100.9 +/-27.0	85.8 +/-23.6	92.2 +/-24.7	61.9 +/-19.3	51.2 +/-24.7	41.5 +/-23.6	0.40	0.36
TauG (msec)	125.9 +/-56.7	6115.5 +/-2987.7	70.5 +/-62.2	99.89 +/-3659.1	171.5 +/-56.7	190.4 +/-2987.7	135.7 +/-56.7	68.7 +/-2987.7	0.69	0.43
TauM (msec)	65.1 +/-16.7	51.1 +/-5.0	118.8 +/-18.3	60.8 +/-6.1	75.3 +/-16.7	55.3 +/-5.0	60.9 +/-16.7	51.3 +/-5.0	0.12	0.69
ESPVR	1.2 +/-0.3	2.9 +/-0.7	2.0 +/-0.3	4.1 +/-0.8	3.2 +/-0.3	3.4 +/-0.7	1.7 +/-0.3	5.0 +/-0.7	0.001	0.22
EDPVR	0.01 +/-0.003	0.02 +/-1.4	0.003 +/-0.005	0.01 +/-2.2	0.01 +/-0.005	0.01 +/-2.2	0.02 +/-0.004	2.2 +/-1.4	0.26	0.67
PRSW	4.4 +/-5.4	8.5 +/-1.8	19.2 +/-5.9	9.7 +/-2.0	5.7 +/-5.4	9.2 +/-1.6	4.3 +/-5.4	8.7 +/-1.8	0.23	0.97
MaxdpEDV	5.1 +/-3.8	34.2 +/-7.2	15.6 +/-4.2	40.8 +/-8.8	7.5 +/-3.8	27.9 +/-7.2	6.7 +/-3.8	43.2 +/-8.8	0.29	0.53
PVAEDV	5.7 +/-5.2	8.5 +/-2.0	19.8 +/-5.7	16.2 +/-2.8	7.0 +/-5.2	9.0 +/-2.0	6.0 +/-5.2	10.7 +/-2.4	0.24	0.17
PVAESV	13.6 +/-3.4	6.9 +/-1.9	17.2 +/-3.7	10.5 +/-2.4	13.2 +/-3.4	8.3 +/-1.9	12.7 +/-3.4	6.3 +/-2.1	0.81	0.58
E_{max}	3.6 +/-1.7	5.7 +/-0.9	6.7 +/-1.9	5.7 +/-1.0	4.42 +/-1.7	5.8 +/-0.9	2.7 +/-1.7	6.6 +/-1.0	0.45	0.92

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