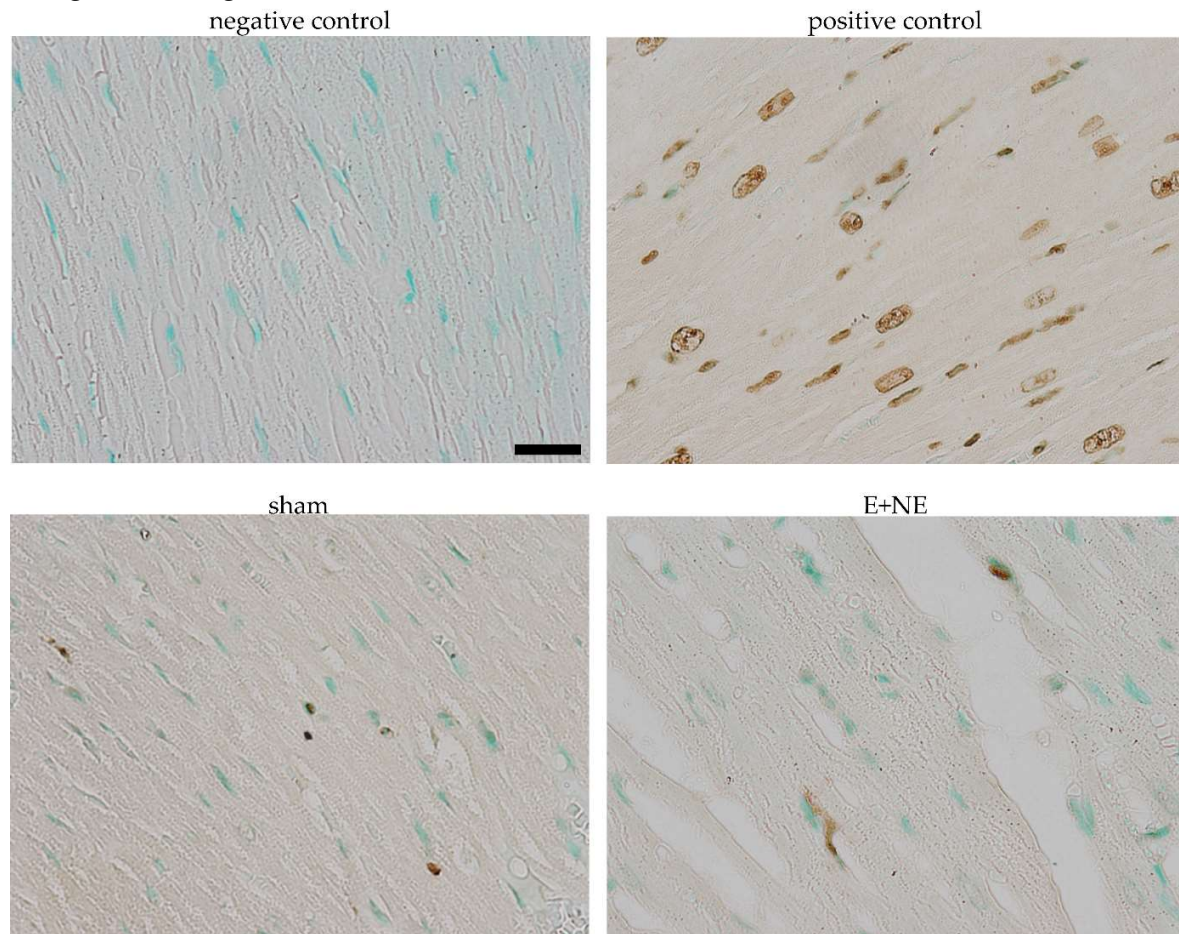


## Supplementary Materials: Norepinephrine Leads to More Cardiopulmonary Toxicities than Epinephrine by Catecholamine Overdose in Rats

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**Figure S1.** Apoptosis induced by catecholamine overdose through Terminal deoxynucleotidyl transferase dUTP nick end labeling assay. Sham, 0.9% saline injection group; E+NE, epinephrine and norepinephrine injection group.

**Table S1.** The echocardiographic parameters of the 4 group at 0-h and 6-h post-intravenous continuous infusion of epinephrine and/or norepinephrine.

Parameters	Echocardiographic parameters											
	sham (n = 3)			E (n = 6)			NE (n = 6)			E+NE (n = 6)		
	0 h (Mean±SD)	6 h (Mean±SD)	p value	0 h (Mean±SD)	6 h (Mean±SD)	p value	0 h (Mean±SD)	6 h (Mean±SD)	p value	0 h (Mean±SD)	6 h (Mean±SD)	p value
Body weight (g)	378.7±10.97			367.17 ± 12.56			372.5 ± 15.53			378.67 ± 3.95		
HR (bpm)	355.12 ± 42.93	368.12 ± 35.14	0.273	333.92 ± 40.84	487.27 ± 82.88*	0.028	302.69 ± 19.90	524.91 ± 51.55*	0.028	329.76 ± 22.59	457.16 ± 73.25*	0.028
IVSd (mm)	1.83 ± 0.14	1.80 ± 0.04	0.715	1.88 ± 0.22	2.51 ± 0.56	0.046	1.73 ± 0.06	3.27 ± 0.24*†	0.028	2.05 ± 0.31	3.24 ± 0.33*	0.028
LVIDd (mm)	7.090 ± 0.44	7.18 ± 0.16	0.273	7.37 ± 0.30	5.64 ± 1.36	0.046	7.15 ± 0.48	4.16 ± 1.07*	0.028	7.04 ± 0.48	3.20 ± 0.44*†	0.028
LVIDs (mm)	4.69 ± 0.22	4.70 ± 0.14	0.715	4.70 ± 0.57	2.66 ± 1.65*	0.046	4.15 ± 0.80	2.40 ± 1.25*	0.028	4.48 ± 0.45	1.23 ± 0.33*†	0.028
LVPWd (mm)	1.39 ± 0.06	1.21 ± 0.12	0.144	1.62 ± 0.13	2.39 ± 0.68*	0.046	1.53 ± 0.22	2.98 ± 0.54*	0.028	1.47 ± 0.13	3.40 ± 0.47*†	0.028
LVd Mass (ASE, g)	1.22 ± 0.07	1.17 ± 0.04	1.000	1.34 ± 0.10	1.42 ± 0.20*	0.116	1.23 ± 0.06	1.48 ± 0.14*	0.028	1.30 ± 0.12	1.37 ± 0.10*	0.173
EF (Teich, %)	68.27 ± 2.03	69.32 ± 1.71	0.465	70.99 ± 7.47	85.77 ± 15.88	0.046	76.80 ± 9.55	78.64 ± 15.76*	0.753	71.27 ± 5.93	93.58 ± 2.79*	0.028
FS (%)	33.85 ± 1.66	34.56 ± 1.25	0.465	36.26 ± 5.98	55.47 ± 18.05	0.046	41.75 ± 9.17	45.70 ± 16.33*	0.600	36.41 ± 4.87	62.09 ± 5.24*	0.028
EDV (Teich, mL)	0.81 ± 0.13	0.84 ± 0.54	0.273	0.90 ± 0.10	0.48 ± 0.29	0.046	0.81 ± 0.15	0.21 ± 0.13*	0.027	0.80 ± 0.15	0.09 ± 0.03*†	0.028
ESV (Teich, mL)	0.25 ± 0.03	0.26 ± 0.02	0.715	0.26 ± 0.09	0.10 ± 0.15	0.046	0.19 ± 0.09	0.06 ± 0.06*	0.028	0.23 ± 0.06	0.01 ± 0.00*	0.028
SV (Teich, mL)	0.56 ± 0.10	0.58 ± 0.04	0.273	0.63 ± 0.07	0.38 ± 0.17*	0.028	0.62 ± 0.11	0.15 ± 0.07*	0.028	0.57 ± 0.12	0.08 ± 0.03*†	0.028
CO (Teich, ml/min)	196.50 ± 21.04	217.09 ± 32.77	0.144	202.75 ± 30.09	180.98 ± 80.83	0.600	191.91 ± 30.53	88.93 ± 56.02*	0.028	184.78 ± 31.10	38.14 ± 20.91*†	0.028
MV E Vel (m/s)	0.73 ± 0.09	0.80 ± 0.11	0.144	0.77 ± 0.04	0.57 ± 0.05*	0.028	0.78 ± 0.08	0.37 ± 0.07*†	0.028	0.74 ± 0.06	0.33 ± 0.06*†	0.028
MV A Vel (m/s)	0.57 ± 0.18	0.71 ± 0.11	0.144	0.47 ± 0.14	0.90 ± 0.09	0.028	0.46 ± 0.06	0.74 ± 0.19	0.028	0.63 ± 0.14	0.69 ± 0.19	0.173
MV E/A Ratio	1.38 ± 0.48	1.15 ± 0.35	0.715	1.77 ± 0.50	0.64 ± 0.10*	0.028	1.65 ± 0.16	0.50 ± 0.05*†	0.028	1.24 ± 0.36	0.49 ± 0.08*†	0.028

Data are expressed as means ± SD; CO, cardiac output; E, epinephrine; E+NE, epinephrine and norepinephrine; EDV, end-diastolic volume; EF, ejection fraction; ESV, end-systolic volume; FS, fractional shortening; HR, heart rate; IVSd, interventricular septum thickness at end –diastole; LVd Mass, the left ventricular mass at end diastole; LVIDd, left ventricular internal dimension at end –diastole; LVIDs, left ventricular internal dimension at end –systole; LVPWd, left ventricular posterior wall thickness at end –diastole; MV A vel, peak late diastolic mitral valve velocity; MV E vel, peak early diastolic mitral valve velocity; NE, norepinephrine; sham, 0.9% saline; SV, stroke volume. \**p* < 0.05 vs. sham group. †*p* < 0.05 vs. E group.