**Supplementary File 1. Hemodynamic and anatomical parameters after 2 days and 14 days of sham/TAC in WT and *Trpm4* cKO mice.**

|  |  |  |
| --- | --- | --- |
|    | **2 days** | **14 days** |
| WT | *Trpm4* cKO | WT | *Trpm4* cKO |
| Sham | TAC | Sham | TAC | Sham | TAC | Sham | TAC |
| **Hemodynamic parameter** |  |  |  |  |  |  |  |   |
| n |  | 6 | 6 | 6 |  7 |
| HR (bpm) | 503.00± 2.78 | 505.83± 4.27 | 491.17± 6.00 | 496.00± 10.67 |
| Aortic systolic pressure (mmHg)  | 103.83± 2.27 | 161.00± 2.57 \*\*\* | 100.83± 3.61 | 163.43± 2.23 \*\*\* |
| Aortic diastolic pressure (mmHg) | 73.33± 6.31 | 78.67± 2.72 | 72.50± 1.18 | 77.14± 2.72 |
| LV systolic pressure (mmHg) | 103.67± 3.68 | 162.50± 2.86 \*\*\* | 106.67± 2.86 | 164.43± 3.04 \*\*\* |
| dP/dtmax (mmHg/s) | 9403.00 ± 466.66 | 9559.67± 703.60 | 9470.67± 424.55 | 9199.14± 372.03 |
| dP/dtmin (mmHg/s) | -9492.83 ± 186.90 | -9642.83 ± 681.67 | -9706.33± 551.89 | -9924.57 ± 506.24 |
| **Anatomical parameter** |  |  |  |  |  |  |  |   |
| n | 7 | 7 | 8 | 6 | 7 | 7 | 7 | 9 |
| BW (g) | 26.29± 0.54 | 26.03± 0.80 | 23.75± 0.33 | 25.85± 0.51 | 26.26± 0.67 | 26.60± 0.46 | 26.96± 0.98 | 27.14± 0.69 |
| HW (mg) | 126.57± 1.82 | 128.00 ± 4.68 | 116.25± 1.77 | 124.50± 1.23 | 122.71± 3.46 | 163.29± 3.79 \*\*\* | 127.71± 4.15 | 151.22± 4.52 \*\* |
| LVW (mg) | 88.29 ± 1.89 | 92.57 ± 4.78 | 80.25± 1.26 | 91.00± 1.13 | 88.43± 2.87 | 126.71± 2.96 \*\*\* | 93.00± 3.57 | 114.33 #± 2.92 \*\*\* |
| LW (mg) | 137.44± 0.98 | 136.63± 2.19 | 130.01± 2.06 | 135.07± 1.69 | 138.66± 2.26 | 147.66± 3.65 | 137.94± 2.75 | 144.38± 2.30 |
| TL (mm) | 17.47 ± 0.10 | 17.49 ± 0.20 | 16.63± 0.06 | 17.58± 0.15 | 17.37± 0.09 | 17.29± 0.09 | 17.64± 0.16 | 17.66 ± 0.09 |
| HW/BW (mg/g) | 4.82 ± 0.04 | 4.91 ± 0.04 | 4.90± 0.05 | 4.83± 0.10 | 4.67± 0.04 | 6.14 ± 0.09 \*\*\* | 4.74± 0.03 | 5.57 ###± 0.09 \*\*\* |
| LVW/BW (mg/g) | 3.40 ± 0.03 | 3.55± 0.10  | 3.38± 0.05 | 3.53± 0.08 | 3.36± 0.03 | 4.77± 0.10 \*\*\* | 3.45± 0.05 | 4.22 ###± 0.09 \*\*\* |
| LVW/TL (mg/mm) | 5.05 ± 0.09 | 5.28± 0.22 | 4.82± 0.10 | 5.18± 0.07 | 5.09± 0.15 | 7.33± 0.18 \*\*\* | 5.27± 0.17 | 6.47 ###± 0.15 \*\*\* |
| LW/BW (mg/g) | 5.24± 0.08 | 5.27± 0.09 | 5.48± 0.07 | 5.24± 0.13 | 5.29± 0.09 | 5.55± 0.12 | 5.15± 0.17 | 5.33± 0.09 |

Hemodynamic measurements include heart rate (HR), aortic systolic and diastolic pressure, LV systolic pressure, dP/dtmax and dP/dtmin; anatomical measurements include body weight (BW), heart weight (HW), LV weight (LVW), lung weight (LW), tibial length (TL), heart weight normalized by body weight (HW/BW), LV weight normalized by body weight and tibial length (LVW/BW; LVW/TL), lung weight normalized by body weight (LW/BW). Data are presented as means ± SEM. Comparison between sham and TAC in WT or *Trpm4* cKO groups: \*\**p* < 0.01, \*\*\**p* < 0.001; Comparison between WT and *Trpm4* cKOTAC groups: #*p* < 0.05, ###*p* < 0.001.