## Curcumin nanoparticles protect against isoproterenol induced myocardial infarction by alleviating myocardial tissue oxidative stress, electrocardiogram, and biological changes

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**Table S1.** P-values for comparisons between the study groups for electrocardiogram monitoring.

| | **MI-C vs. C** | **Cs100+ ISO vs. MI-C** | **Cs150+ ISO vs. MI-C** | **Cs200+ ISO vs. MI-C** | **nC100+ ISO vs. MI-C** | nC150+ ISO vs. MI-C | nC200+ ISO vs. MI-C | Cs xxx+ISO vs. Cs yyy+ISO | | | nC xxx+ISO vs. nC yyy+ISO | | | nC xxx+ISO vs. Cs xxx+ISO | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 150 vs. 100 | 200 vs. 100 | 200 vs. 150 | 150 vs. 100 | 200 vs. 100 | 200 vs. 150 | 100 vs. 100 | 150 vs. 150 | 200 vs. 200 |
| RR(ms) day 0 | 0.3067 | 0.3067 | 0.3379 | 0.8480 | 0.6093 | 0.1797 | 0.3711 | 0.7983 | 0.4822 | 0.4062 | 0.6547 | 0.7015 | 0.9491 | 0.7015 | 0.7494 | 0.4433 |
| HR(b/min) day 0 | 0.3067 | 0.3067 | 0.3379 | 0.8480 | 0.6093 | 0.1797 | 0.3711 | 0.7983 | 0.4822 | 0.4062 | 0.6547 | 0.7015 | 0.9491 | 0.7015 | 0.7494 | 0.4433 |
| PR(ms) day 0 | 0.5653 | 0.7983 | 0.7983 | 0.1797 | 0.1102 | 0.2013 | 0.5229 | 0.7015 | 0.2013 | 0.0845 | 0.4433 | 0.1102 | 0.2013 | 0.1417 | 0.0845 | 0.2013 |
| QRS (ms) day 0 | 0.4062 | 1.0000 | 0.6547 | 0.5229 | 0.1417 | 0.8983 | 0.5653 | 0.7015 | 0.6093 | 1.0000 | 0.3067 | 0.0253 | 0.9491 | 0.1102 | 0.7983 | 0.8480 |
| QT(ms) day 0 | 0.8983 | 0.8983 | 0.6547 | 0.4822 | 0.6547 | 0.3067 | 0.5653 | 1.0000 | 0.6093 | 1.0000 | 0.4822 | 0.1102 | 0.0152 | 0.7494 | 0.4433 | 0.8983 |
| QTc(ms) day 0 | 0.5653 | 0.7494 | 0.6547 | 0.7494 | 0.5653 | 0.2774 | 0.7494 | 0.7494 | 0.4062 | 0.4822 | 0.6547 | 0.1417 | 0.0350 | 0.4062 | 0.3379 | 0.7983 |
| ST(mV) day 0 | 0.5229 | 0.5653 | 0.7983 | 0.7983 | 0.5653 | 0.6547 | 0.2502 | 0.9491 | 0.5653 | 0.5229 | 0.7494 | 0.1417 | 0.2013 | 0.2774 | 0.6093 | 0.4433 |
| | | | | | | | | | | | | | | | | |
| RR(ms) day 12 | 0.4062 | 0.2502 | 0.0253 | 0.0049 | 0.0017 | 0.0017 | 0.0017 | 0.0736 | 0.0073 | 0.0736 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 |
| HR(b/min) day 12 | 0.4062 | 0.2502 | 0.0253 | 0.0049 | 0.0017 | 0.0017 | 0.0017 | 0.0736 | 0.0073 | 0.0736 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PR(ms) day 12 | 0.3067 | 0.6093 | 0.2248 | 0.2013 | 0.0553 | 0.3711 | 0.3067 | 0.4822 | 0.5653 | 0.9491 | 0.4062 | 0.4822 | 0.9491 | 0.2013 | 0.7983 | 0.7983 |
| QRS (ms) day 12 | 0.6547 | 0.8983 | 0.3711 | 0.8983 | 0.9491 | 1.0000 | 0.9491 | 0.2248 | 0.7015 | 0.4822 | 0.8983 | 0.8480 | 0.8983 | 1.0000 | 0.2248 | 0.9491 |
| QT(ms) day 12 | 0.2248 | 0.8480 | 0.2248 | 0.4433 | 0.3067 | 0.1797 | 0.8983 | 0.1599 | 0.1797 | 0.9491 | 1.0000 | 0.2013 | 0.0967 | 0.2502 | 1.0000 | 0.2013 |
| QTc(ms) day 12 | 0.4062 | 0.4822 | 0.1417 | 0.1102 | 0.0350 | 0.0350 | 0.0639 | 0.0639 | 0.0967 | 0.4822 | 0.4822 | 0.6547 | 0.5653 | 0.0350 | 0.0845 | 0.7494 |
| ST(mV) day 12 | 0.8480 | 0.3711 | 0.7494 | 0.7015 | 0.6547 | 0.4062 | 0.9491 | 0.5229 | 0.7015 | 0.8983 | 0.2013 | 0.7015 | 0.5229 | 0.2248 | 0.7015 | 0.7494 |
| | | | | | | | | | | | | | | | | |
| RR(ms) day 15 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0476 | 0.0017 | 0.0022 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 |
| HR(b/min) day 15 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0476 | 0.0017 | 0.0022 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 |
| PR(ms) day 15 | 0.0476 | 0.1252 | 0.0967 | 0.3711 | 0.1599 | 0.7015 | 0.1599 | 0.3711 | 0.4062 | 0.2248 | 0.1797 | 0.6547 | 0.3067 | 0.7494 | 0.2013 | 0.2774 |
| QRS (ms) day 15 | 0.0017 | 0.1252 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0639 | 0.7983 | 0.0639 | 0.0350 | 0.0017 | 0.0022 | 0.0017 |
| QT(ms) day 15 | 0.0017 | 0.0253 | 0.0027 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0476 | 0.0017 | 0.0088 | 0.0027 | 0.0017 | 0.0476 | 0.0017 | 0.0017 | 0.0017 |
| QTc(ms) day 15 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0350 | 0.0017 | 0.0027 | 0.0017 | 0.0017 | 0.0127 | 0.0017 | 0.0017 | 0.0017 |
| ST(mV) day 15 | 0.0017 | 0.2502 | 0.0639 | 0.0106 | 0.0073 | 0.0017 | 0.0017 | 0.2774 | 0.0215 | 0.5653 | 0.4433 | 0.0049 | 0.0073 | 0.0152 | 0.0088 | 0.0017 |

**Table S2.** P-values for comparisons between the study groups for of lactate dehydrogenase (LDH), aspartate transaminase (ASAT), alanine transaminase (ALAT), and glycemia.

| | **MI-C vs. C** | **Cs100+ ISO vs. MI-C** | **Cs150+ ISO vs. MI-C** | **Cs200+ ISO vs. MI-C** | **nC100+ ISO vs. MI-C** | **nC150+ ISO vs. MI-C** | nC200+ ISO vs. MI-C | Cs xxx+ISO vs. Cs yyy+ISO | | | nC xxx+ISO vs. nC yyy+ISO | | | nC xxx+ISO vs. Cs xxx+ISO | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 150 vs. 100 | 200 vs. 100 | 200 vs. 150 | 150 vs. 100 | 200 vs. 100 | 200 vs. 150 | 100 vs. 100 | 150 vs. 150 | 200 vs. 200 |
| | | $\alpha$1 | $\alpha$2 | $\alpha$3 | $\alpha$4 | $\alpha$5 | $\alpha$6 | $\beta$1 | $\beta$2 | $\gamma$1 | $\lambda$1 | $\lambda$2 | $\mu$1 | $\beta$3 | $\gamma$2 | $\varepsilon$1 |
| LDH (U/L) | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0040 | 0.0017 | 0.0845 | 0.0017 | 0.0017 | 0.0181 | 0.0017 | 0.0017 | 0.0017 |
| ASAT (U/L) | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0060 | 0.0027 | 0.0017 | 0.0476 | 0.0017 | 0.0017 | 0.0017 |
| ALAT (U/L) | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0181 | 0.0127 | 0.4822 | 0.0017 | 0.0017 | 0.0017 | 0.0073 | 0.0017 | 0.0017 |
| Glycemia (mg/dL) | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0106 | 0.0049 | 0.3711 | 0.0476 | 0.0017 | 0.0553 | 0.0027 | 0.0088 | 0.0017 |

**Table S3.** P-values for comparisons between the study groups for oxidative stress parameters in myocardial tissue.

| | **MI-C vs. C** | **Cs100+ ISO vs. MI-C** | **Cs150+ ISO vs. MI-C** | **Cs200+ ISO vs. MI-C** | **nC100+ ISO vs. MI-C** | **nC150+ ISO vs. MI-C** | nC200+ ISO vs. MI-C | Cs xxx+ISO vs. Cs yyy+ISO | | | nC xxx+ISO vs. nC yyy+ISO | | | nC xxx+ISO vs. Cs xxx+ISO | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 150 vs. 100 | 200 vs. 100 | 200 vs. 150 | 150 vs. 100 | 200 vs. 100 | 200 vs. 150 | 100 vs. 100 | 150 vs. 150 | 200 vs. 200 |
| | | $\alpha$1 | $\alpha$2 | $\alpha$3 | $\alpha$4 | $\alpha$5 | $\alpha$6 | $\beta$1 | $\beta$2 | $\gamma$1 | $\lambda$1 | $\lambda$2 | $\mu$1 | $\beta$3 | $\gamma$2 | $\varepsilon$1 |
| MDA [nmol/L] | 0.0017 | 0.0060 | 0.0026 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0350 | 0.0017 | 0.0181 | 0.0088 | 0.0017 | 0.5224 | 0.0017 | 0.0017 | 0.0017 |
| NOx [µmol/L] | 0.0017 | 0.0027 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.1797 | 0.0639 | 0.4428 | 0.3352 | 0.0039 | 0.0040 | 0.0030 | 0.0030 | 0.0017 |
| TOS [µmol H2O2 equiv./L] | 0.0017 | 0.0027 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0017 | 0.0474 | 0.0253 | 0.7009 | 0.2003 | 0.0060 | 0.0405 | 0.0027 | 0.0027 | 0.0033 |
| Thiol [mmol/L] | 0.0017 | 0.0250 | 0.0040 | 0.0017 | 0.0017 | 0.0016 | 0.0017 | 0.1768 | 0.0070 | 0.0403 | 0.0450 | 0.0033 | 0.0080 | 0.0017 | 0.0017 | 0.0017 |
| TAC [mmol Trolox/L] | 0.0016 | 0.0016 | 0.0016 | 0.0016 | 0.0015 | 0.0016 | 0.0016 | 0.0250 | 0.0017 | 0.0026 | 0.0038 | 0.0016 | 0.0017 | 0.0016 | 0.0016 | 0.0017 |