Effect of Ischemic Preconditioning and Postconditioning on exosome-rich fraction microRNA Levels, in Relation with Electrophysiological Parameters and Ventricular Arrhythmia in Experimental Closed-Chest Reperfused Myocardial Infarction

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Supplementary information

Table S1. Measured miRs and cardiac-conduction related effects. This table shows an overview of our measured miRs, their known dynamic in I/R, the dynamics between our groups and a more detailed list of conduction related effects, gene targets (brackets denote the coded protein) and other known functions of these miRs.

miR	Regulation in I/R	Dynamic in our study	Conduction related effects	Cardiac Conduction related gene target	Other functions
miR-1	↑ in plasma	↑ ↑ IPC ↑ ↑ ↑ AMI ↑ PostC	↑ Ca2+ release, increased excitability,	B56α (RyR2)[1,2] GJA1 (Cx43)[3,4] KCNJ2 (Kir2.1)[3]	CTGF, TGFβ1, Calmodulin, Mef2a, Anti-fibrotic [5,6] Bcl-2 Promotes apoptosis [7,8]
miR-21	↑ in plasma	↑ ↑ ↑ IPC ↑ ↑ AMI ↑ PostC	↓ L-Type Calcium Current in Atria[9]		Spry1 Pro-fibrotic[10] PDCD4 Anti-Apoptotic [11]
miR-26	↑ in plasma	↑ ↑ IPC ↑ ↑ ↑ AMI ↑ PostC	↓ inward rectifier K+ channels (↓ AF)	KCNJ2 (Kir2.1)[12]	GATA4, PLC1b Pro-fibrotic, anti-angiogenic [13,14]
miR-133	↑ in plasma	↑ ↑ IPC ↑ ↑ ↑ AMI ↑ PostC	↑ Ca2+ release ↓ transient outward K+ current, I(to,f)[15] ↓ I_{Kr}	B56α (RyR2)[1] PP2A (RyR2) ERG	Calcineurin Anti-fibrotic[16,17] Caspase 9 Anti-apoptotic

miR-208a	↑ in plasma	↑ ↑ ↑ IPC ↑ ↑ AMI ↑ PostC	↓ conduction speed	GJA5	GATA4, Connexin40, THRAP3, Myostatin Pro-hypertrophy, Necessary for atrial conduction [18]
miR-328	↑ in plasma	↑ ↑ ↑ IPC ↑ ↑ AMI ↑ PostC	Adverse electrical remodeling (↑ AF) [19] ↓ L-Type Calcium Channels	CACNA1C	

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