

عنوان مقاله:

?Does Heart Affect Peripheral Vascular Resistance Following Myocardial Ischemia and Reperfusion

محل انتشار:

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خلاصه مقاله:

Objective(s) The aim of this study was to investigate the overall effect of cardiac vasoactive factors during coronary occlusion and reperfusion on peripheral vascular tone, using a sequential isolated rabbit heart-ear perfusion model. **Materials and Methods** Isolated ears were perfused with the effluent of isolated hearts subjected to ischemia (۳۰ min) and reperfusion (۱۸۰ min, n=۶). The comparator groups consisted of a sham operated group (no ischemia, n=۵) and the ears that were directly perfused with modified Krebs (n=۱۰). At the end of previous experiment, the perfusion mode of the sequentially perfused ears was converted to non-sequential perfusion with modified Krebs for ۱۰ min and vice versa. In a separate experiment, samples collected from heart effluent during different stages of the first experiment were perfused to isolate stabilized ears (۳ min; n=۵) or hearts (۱ min; n=۵). The possible effects of the samples on the tone of isolated femoral artery rings were also studied using an organ bath (n=۵). **Results** Coronary occlusion and reperfusion did not exert significant effects on the heart rate or the perfusion pressure of the sequentially perfused ears. The samples collected during different stages of ischemia and reperfusion did not affect the vascular tone in isolated ears or femoral artery rings either. **Conclusion** The current study suggests that isolated heart, even following ischemia and reperfusion, does not release vasoactive substances in concentrations sufficient enough to affect peripheral resistance.

کلمات کلیدی:

Isolated heart, Myocardial ischemic reperfusion injury, Vasoactive substances

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