Remote ischemic postconditioning improves myocardial dysfunction in a rat model of severe hemorrhagic shock

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Results

Background

Severe hemorrhagic shock frequently leads to death. Previous studies have found that remote ischemic postconditioning (RIPostC) improved the outcomes of circulatory shock significantly. In this study, we investigate the effects of RIPostC on myocardial function in a rat model of hemorrhagic shock. We hypothesized RIPostC would improve myocardial function after CPR compared to control.

Methods

Twenty-four male rats weighing between 450-550g were randomized into three groups: Sham, Control, and RIPostC. Hemorrhagic shock was induced by removing 45% of the estimated total blood volume in 60 min and maintained for 40 min. Resuscitation was then attempted by infusion of shed blood for 40 min.

Figure 1. Myocardial Function

In the RIPostC group, RIPostC was induced by four cycles of 5 min of limb ischemia followed by reperfusion for 5 min during resuscitation[1]. Myocardial function was measured by echocardiography.

Conclusions

RIPostC attenuates myocardial dysfunction in this rat model of hemorrhagic shock.

References


Disclosure

None