Effect of Hongjingtian injection and PEG-rhG-CSF on cardiac hemodynamics and myocardial oxygen consumption of anesthetized dogs

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View from specialist: It is creative, and of certain scientific and educational value.

[ABSTRACT] Objective: The present investigation aimed to explore the effect of Hongjingtian injection and PEG-rhG-CSF on cardiac hemodynamics and myocardial oxygen consumption of anesthetized dogs. Methods: Dogs were divided into 4 groups randomly, control, Hongjingtian group, PEG-rhG-CSF group and positive control. The cardiac output, dp/dtmax, coronary resistance, total peripheral resistance and myocardial oxygen consumption were detected. Results: The cardiac output was increased while coronary resistance, total peripheral resistance and myocardial oxygen consumption were decreased greatly (P<0.05) in Hongjingtian group when compared with control. But dp/dtmax and cardiac index were not influenced in Hongjingtian group. These parameters were not changed in PEG-rhG-CSF group when compared with control (P>0.05). Conclusion: Hongjingtian but not PEG-rhG-CSF exerts pharmaceutical effect by regulating myocardial oxygen consumption and afterload in heart.

[KEY WORDS] Hongjingtian injection; PEG-rhG-CSF; Cardiac hemodynamics; Myocardial oxygen consumption