

论著

菊米提取液对抗心肌缺血再灌注损伤

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摘要 目的: 研究菊米提取液的抗心肌缺血作用及其机制。方法: 采用离体大鼠心脏Langendorff灌流模型, 观察心脏收缩功能和心肌梗死面积。结果: (1) 菊米提取液(0.5、1.0、2.0 g/L)灌流心脏后, 左室发展压(left ventricular developed pressure, LVDP)、最大左室收缩/舒张速率(maximal rate of increase/decline in left ventricular pressure, $\pm dp/dt_{max}$)和冠脉流量增高。(2) 菊米提取液可浓度依赖性增加心肌组织一氧化氮合酶(nitric oxide synthase, NOS)活性和一氧化氮(nitric oxide, NO)含量。(3) 在缺血前(预处理)或再灌注早期给予0.5 g/L菊米提取液, 均可减轻缺血再灌注引起的收缩功能下降, 并可缩小心肌梗死面积。预先给予L-NAME, 可取消菊米对抗心肌缺血再灌注损伤。结论: 菊米提取液具有强心作用。菊米提取液能对抗心肌缺血再灌注损伤, 其机制可能依赖于NO途径。

关键词 [野菊花](#) [心肌再灌注损伤](#) [一氧化氮合酶](#)

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Protective effect of Jumi extraction on hearts of ischemia-reperfusion injury in rat

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Abstract

AIM: To examine the effect of Jumi (JM) extraction on the contraction of hearts and its cardiac protection against ischemia-reperfusion injury.
METHODS: Cardiac contractility and infarct area were analyzed by the Langendorff method in isolated rat hearts.
RESULTS: (1) After perfusion with JM extraction (0.5, 1.0, 2.0 g/L), LVDP, $\pm dp/dt_{max}$ and coronary flow were enhanced. (2) JM extraction increased myocardium nitric oxide synthase (NOS) activity and nitric oxide (NO) content in a concentration-dependent manner. (3) Preconditioning or postconditioning of the heart with JM extraction (0.5 g/L), both provided cardioprotection as evidence by improving postischemic ventricular functional recovery and reduced myocardial infarct size. Preperfusion of the hearts with L-NAME (a NOS inhibitor) abolished the cardioprotection induced by JM extraction preconditioning or postconditioning.
CONCLUSION: The results demonstrate that JM extraction has positive effect in isolated rat hearts, and it can protect rat heart against ischemia-reperfusion injury through a NO-dependent pathway.

Key words [Flos chrysanthemi indicis](#) [Myocardial reperfusion injury](#) [Nitric oxide synthase](#)

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