

Effect on eNOS/NO Pathway in MIRI rats with preconditioning of GFPC from Dang Gui Si Ni decoction

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ABSTRACT

Objective In order to discover whether the eNOS/NO (endothelial nitric oxide synthase/nitric oxide) pathway is involved in the protective mechanisms of ischemic myocardium of DGSND (Dang Gui Si Ni Decoction) in MIRI (myocardial ischemia-reperfusion injury) SD rats. **Materials and Methods** We made I/R (ischemia-reperfusion) model by ligating the left anterior-descending branch of the coronary artery (LAD) for 30 min and releasing the ligature for 120 min. eNOS (nitric oxide synthase) mRNA (message ribonucleic acid) and iNOS (inducible nitric oxide synthase) mRNA were measured by the methods of real-time RT-PCR (Real time Polychainase Chain Reaction), peNOS (phosphorylated eNOS) and iNOS protein were measured by the means of western blot. **Results** In PPC group, real-time RT-PCR and western-blot analysis showed that eNOS mRNA and peNOS protein increased markedly ($P < 0.05$); iNOS mRNA and protein decreased significantly ($P < 0.05$). **Conclusion** These results indicate that ischemic preconditioning (IPC) of GFPC from DGSND plays a protective role in I/R heart through regulating the eNOS/NO signal pathway, which could increase the eNOS gene expression and decrease the expression of iNOS mRNA.

KEYWORDS

Cinnamic acid . eNOS . ferulic acid . glycyrrhizic acid . MIRI . NO . paeoniflorin

REFERENCES

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