in DIDS and CAT groups ($p<0.05$). The activity of SOD was higher, but the levels of MDA were lower in CAT group than DIDS group ($p<0.05$). (3) Compared with the I/RI group, the myocardial ROS levels were significantly reduced in DIDS and CAT groups. Moreover, CAT group had lower ROS levels than DIDS group ($p<0.05$). (4) There was no significant difference on the total Akt expression in the four groups ($p>0.05$). Compared with the sham group, the phospho-Akt levels were enhanced in the other three groups ($p<0.05$). The phospho-Akt levels were significantly higher in DIDS group than I/R and CAT groups, ($p<0.05$), but the levels of phospho-Akt were no difference between I/R and CAT group ($p>0.05$).

Conclusion DIDS strongly protects cardiomyocytes against I/RI-induced apoptosis via activating PI3K/Akt signalling pathway and reducing ROS levels.

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THE REGULATION OF DIDS ON PI3K/AKT AND ROS SIGNAL TRANSDUCTION IN THE ISCHEMIA-REPERFUSION INJURY MYOCARDIUM

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Objective To investigate the regulation of DIDS on PI3K/Akt and ROS signal transduction in the ischemia-reperfusion injury myocardium.

Methods Male SD rats were randomised into four groups sham group, I/RI (ischemia-reperfusion injury) group, CAT (catalase) group, and DIDS group. The myocardial infarction sise, the levels of tissue ROS, the myocardial apoptosis index, the serum levels of creatine kinase (CK) and lacate dehydrogenase (LDH), the activity of malonaldehyde (MDA) and superoxide dismutase (SOD), and the myocardial Akt and activity of malonaldehyde (MDA) and superoxide dismutase (SOD), and the myocardial Akt and phospho-Akt protein expressions were determined.

Results (1) Compared with the I/RI group, the myocardial infarction sise, the apoptotic index, the activity of CK and LDH were significantly decreased in DIDS and CAT groups, and there was no difference between CAT and DIDS groups ($p>0.05$). (2) Compared with the I/RI group, the levels of MDA were decreased and the activity of SOD was increased