



## ***Ginkgo biloba* extract postconditioning reduces myocardial ischemia reperfusion injury**

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**ABSTRACT.** We examined the protective effects of *Ginkgo biloba* extract (EGb761) postconditioning on myocardial ischemia reperfusion injury in rabbits. Four groups of 8 white rabbits were allocated to: pseudo surgery group: the left coronary was lined without blocking for 160 min after thoracotomy; ischemia and reperfusion group (IR): the left anterior descending coronary artery was blocked for 40 min and reperfused for 120 min; ischemic postconditioning group: the left anterior descending artery was ligated for 40 min, reopened for 30 s and ligated for 30 s, repeated three times, and then reperfused for 120 min; EGb761 postconditioning group (E): 100 mg/kg EGb761 was injected into a vein while the left coronary artery was opened for 1 min. The reperfusion took 120 min. Internal carotid arterial blood in each group was collected for cTnI measurement at five times: 20 min before occlusion of the left coronary artery, 20 min after left coronary artery occlusion, 40 min after left coronary artery occlusion, 1 h after

myocardial reperfusion, and 2 h after myocardial reperfusion. Superoxide dismutase (SOD), malondialdehyde (MDA) in the centrifuged blood and myocardial infarction area were measured at the end of reperfusion. We found that the serum cTnI concentrations in the E group during reperfusion decreased significantly compared with those in the IR group. The infarction area was significantly lower in the E group than that in the IR group. The SOD activity in the E group was increased compared with that in the IR group; the MDA content decreased significantly in the E group compared with that in the IR group. We conclude that *G. biloba* extract postconditioning had myocardial protection effects by reducing the generation of oxygen-free radicals and increasing the antioxidant capacity of the myocardial cells.

**Key words:** *Ginkgo biloba* extract; Ischemia reperfusion injury; Myocardium