Cheng Long, Nat Prod Chem Res 2014, 2:5
http://dx.doi.org/10.4172/2329-6836.S1.005

OMICS Group Conferences
Accelerating Scientific Discovery

2nd International Conference and Exhibition on
Pharmacognosy, Phytochemistry & Natural Products
August 25-27, 2014 DoubleTree by Hilton Beijing, China

The protective effect and mechanism of Yindan Xinnaotong capsule and main compositions compatibility on myocardial ischemia/reperfusion injury

Cheng Long
Chinese Academy of Medical Sciences, China

The aim of this work is to confirm the protecting effect and mechanism of Yindan Xinnaotong capsule (YDXNTC) on protecting myocardium. Myocardial ischemia/reperfusion injury (MIRI) was induced in isolated rat hearts. Electrocardiogram data and coronary flow (CF) were recorded. At the end of experiment, the levels of superoxide dismutase (SOD), malondialdehyde (MDA), lactate dehydrogenase (LDH), creatine kinase-MB (CK-MB), cardiac troponin T and I (cTnT, cTnI), interleukin-1β (IL-1β), interleukin-8 (IL-8) and interleukin-18 (IL-18) were detected by assay kits. *In vitro*, the effect of YDXNTC and main components proportioning on rat myocardial cells (H9c2) was investigated by hypoxia/reoxygenation and hydrogen peroxide (H_2O_2)-injury. Finally, western blotting was used to detect toll-like receptor 4 (TLR-4) expressions. In isolated organ experiment, obviously elevated heart function, CF levels and SOD, and decreased MDA as well as inflammatory factors were found in YDXNTC, main components and main components compatibility. Besides VT/VF occurrence was reduced by ginkgo biloba extracts (GBE) and GBE and salvia miltiorrhiza ethanolic extract compatibility (SM-E, GSEC); LDH was declined by YDXNTC and the aqueous extract of salvia miltiorrhiza (SM-H); CK-MB was remarkable reduced by GBE, SM-E, SM-H and GSEC; cTnI and cTnT was obviously depressed by GSEC. *In vitro* cell study, YDXNTC and main components proportioning improved cell viability and SOD activity, and showed a suppressing action on MDA, cTnT and inflammatory factors (IL-1β, IL-8 and IL-18) of the cells injured with hypoxia/ reoxygenation and H_2O_2. Finally, TLR-4 expression was down- regulated. YDXNTC and the main components compatibility exert protection effect on MIRI by regulating TLR signaling pathway.

Biography

Cheng Long has completed his PhD from Chinese Academy of Chinese Medical Sciences and Postdoctoral studies from Chinese Academy of Medical Sciences. He has published 10 papers in reputed journals, bearing a good reputation in the pharmaceutical industry of China.

dr.ch@139.com