Chun Ya Liang et al., J Mol Genet Med 2018, Volume 12
DOI: 10.4172/1747-0862-C2-028

Danshensu rescues ischemia/reperfusion caused hepatocyte damage

Chun Ya Liang[1], **Maw Sheng Sun**[1] and **Chan Yen Kuo**[2, 3]
[1]Show Chwan Memorial Hospital, Taiwan
[2]National Central University, Taiwan
[3]Hsin Sheng Junior College of Medical Care and Management,Taiwann

Introduction: Apoptosis of hepatocyte, under ischemia/reperfusion (IR) conditions, has been identified as an essential process in the progression of liver transplantation. Under these conditions, mitochondria can become a threat to the cell because of their capacity to generate reactive oxygen species (ROS). Additionally, ROS overproduction may induce inflammation. As ROS accumulation appear to cause hepatocyte damage or death, there has been considerable interest in identifying the candidate natural products involved and in developing strategies to reduce oxidative stress.

Materiasl & Methods: In this study, we use Danshensu as an candidate product to speculate whether has the protective effect on apoptotic hepatocyte upon IR. To speculate the apoptotic phenomena was reversed by Danshensu, we detected the p53, cleaved-caspase 3 expression by western blotting, as well as caspase-3 activity. Additionally, we analyzed the ROS levels by 2' ,7'-dichlorofluorescin diacetate (DCF-DA) stainingg. We also detected the cell viability by WST-1.

Results & Discussion: Results showed that Danshensu alleviated hypoxia-caused cell apoptosis via ROS overproduction. However, the precise roles of ROS in liver as a regulatory, protective, or deleterious mediator are still unresolved questions and need to be further investigated.

Conclusion: We suggested that Danshensu is a good strategy for treating hepatocyte damage upon IR.

Biography

Yi-Ru Ho completed her Graduation from Department of Molecular Biology and Human Genetics, Tzu Chi Universit. Currently, she is a Research Assistant in Department of Medical Research Chang Bing Show Chwan Memorial Hospital. She is interested in "Primary cell culture of ADMSC, cell culture of neuron cell, MTT assay, DNA extraction, qPCR, Western blot, flow cytometry of cell cycle and cell marker, Luciferase assay, siRNA transfection, Enzyme-linked immunosorbent assay, intraperitoneal injection of mice".

cynthia1006@gmail.com

Notes: