

中文題目：甘草酸對UVB引起的肝癌細胞SK-Hep-1之保護作用

英文題目：Protective effect of Glycyrrhizic Acid against UVB-induced cellular damage in hepatocellular carcinoma SK-Hep-1 cells

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Background: The liver is vulnerable to a wide variety of metabolic, toxic, microbial, circulatory, and neoplastic insults. The dominant primary diseases of the liver are viral hepatitis, alcoholic liver diseases, and hepatocellular carcinoma (HCC). HCC is the second and fifth most common malignancy in Taiwan and the world, respectively, and is estimated to cause approximately half a million deaths annually in the world. Glycyrrhizic acid has been shown to possess several beneficial biological activities, including inhibition of the mouse skin tumor-initiating activity of DMBA, anti-ulcerative effects, anti-inflammation, interferon induction and anti-hepatotoxic effects. Furthermore, glycyrrhizic acid is active against a range of viruses.

Methods: The hepatoprotective effects of glycyrrhizic acid were tested on UVB-induced alterations in signaling pathways associated with cell proliferation and tumorigenesis in hepatocellular carcinoma SK-Hep-1 cells.

Results: Results proved that glycyrrhizic acid significantly protected cell killing by UVB irradiation. In addition, glycyrrhizic acid also down-regulated UVB-induced NF- κ B and AP-1 activations. Furthermore, glycyrrhizin significantly suppressed cyclooxygenase-2 and nitric oxide levels.

Conclusion: Glycyrrhizin could be a potential chemoprotective agent for hepatocellular carcinoma.