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Effects of Shugan-Huayu Powder, a Traditional Chinese Herbal Medicine, on Carbon Tetrachloride-induced Hepatic Fibrosis in Rats
Ching-Chang Chang1,2, Nai-Nu Lin1,2, Yen-Feng Tsai1,2, Iong-Yuan Wu1, Yung-Tsuna Chiu1,2, Kwong-Chung Tung1
1Departments of Veterinary Medicine, National Chung-Hsing University; 2Department of Education and Research,
Taichung Veterans General Hospital, 1Institute of China Medical Science, China Medical College

Shugan-Huayu powder (SHP), a traditional Chinese herbal medicine, had been administrated to outpatients with chronic liver disease without clear anti-fibrosis mechanism. In this study, we investigated the anti-fibrotic effects of SHP on liver fibrosis in rat model and in vitro hepatic stellate cells (HSCs). Rats were gavaged with CCl4 1.0 g/kg body weight twice a week for 8 weeks to induce liver fibrosis and randomly assigned to one of the three groups: CCl4 alone, low-dose SHP and high-dose SHP. SHP was given by gavage 5 times a week for 8 weeks. Serum, livers and HSCs were assessed for serology, pathology, western blot, zymography and quantitative RT-PCR. Hepatic function was improved as decreased serum aspartate aminotransferase and alanine aminotransferase, and collagen deposition and active HSCs were significantly reduced in CCl4-induced liver by SHP treatment. The expression of matrix metalloproteinase-2 (MMP-2) and transforming growth factor-β1 (TGF-β1) mRNA in fibrotic liver showed significant downregulation after SHP treatment. In vitro, inhibition of α-SMA expression and MMP-2 secretion of active HSCs were also noticed by SHP treatment. In conclusion, SHP has an anti-fibrotic effect on CCl4-induced liver fibrosis in rats. Probably anti-fibrotic mechanisms were inhibiting activation of HSCs and decrease expressions of MMP-2 and TGF-β1.

P866
Effect of Resveratrol Prevents Neuronal Damage in Pilocarpine-induced Status epilepticus
Chin-Hsing Feng1,*, Chau-Jong Wang1, Mei-Lin Shen1, Ching-Huei Lin1, Hsieh Pei-F1
1Institute of Biochemistry and biotechnology, Chung Shan Medical University, 1Division of Neurology, Taichung Veterans General Hospital, Taichung, Taiwan 407, ROC.

The neuronal death in status epilepticus (SE) is related to reactive oxygen species. The aim of our study was to investigate the neuroprotective effect of resveratrol on hippocampal neurons in pilocarpine-induced status epilepticus. Method: The rats were pretreated with intraperitoneal injection resveratrol (10mg/kg) for 3 days. One group was sacrificed with decapitation immediately for malon-dialdehyde (MDA) analysis. Another group was perfusion-fixed 24 hours after the end of SE for paraffin sections and haematoxylin-and-eosin (H&E) staining. Results showed that pilocarpine-induced SE caused significant increase of MDA. Resveratrol decreased behavioral severity, prevented MDA accumulation and hippocampal neuronal damage in SE. The protective effect of resveratrol against pilocarpine-induced SE suggested the potential use of antioxidants as adjunct therapy in SE.

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Effect of Rhodiola Extracts on UVA-induced Collagen Decrement in Human Fibroblast Cell Line
Jung-Hsiu Liu1,*, Wen-Yueh Ho1, Kuen-Lin Leu1, Hsin-Mao Tsai1, Chia-Chyuan Liu1, Tsai-Hsii Yang2
1Department and Institute of Cosmetic Science, Chia-Nan University of Pharmacy and Science, Tainan, Taiwan, 2Department of Recreation and Health Care Management, Tainan, Taiwan

Ultraviolet irradiation is thought to main cause to evoke skin photoaging. UVA irradiation can increases amount of free radicals and make dermal extracellular matrix alteration; hence it may lead to collagen degeneration. Thereby, UVA can accelerate to display the ageing appearances such as wrinkling and slackening on the skin. The previous studies indicated that the Chinese traditional herbal medicine, rhodiola (Rhodiola rosea L.), had great work on anti-oxidation. However, so far, there is less study to investigate the application of rhodiola in the skin field, particularly in evaluation of anti-ageing function. The purpose of this study is mainly to observe that after treatment with or without the rhodiola extracts, expressions of type I procollagen and MMP in human fibroblast cell line (HS68) under UVA irradiation were respectively assessed by using the methods of western blot analysis and gelatin zymography. The studying results find that the UVA irradiation may increase the amounts of free radicals (our previous results). Expressions of type I procollagen are significantly reduced under UVA irradiation with 20 J/cm2, but expressions of MMP-1 are apparently increased. However, those situations of the type I procollagen decrement and the MMP-1 expressions increment can be greatly improved by giving treatment with methanolic rhodiola extracts. Our findings obtain that the rhodiola extracts can ameliorate the UVA irradiation-induced collagen decreases via diminishing the MMP-1 expressions, and thereby lead to increase the collagen expressions. Hence, we speculate that rhodiola may have great potential to further develop and apply on skin anti-oxidation and anti-ageing efficacies.