

3rd World Congress on

TRADITIONAL AND COMPLEMENTARY MEDICINE

September 10-11, 2018 Auckland, New Zealand

Anti-inflammation properties of Ger-Gen-Chyn-Lian-Tang regulates hepatic fibrosis in a hypoxia and angiogenesis-signaling in cholestasis miceHsuan-Miao Liu¹ and Tzung-Yan Lee^{2,3}¹National Yang-Ming University, Taiwan²Chang Gung University, Taiwan³Chang Gung Memorial Hospital, Taiwan

Angiogenesis plays an important role in liver inflammation and fibrogenesis. GGCLT, a mixed product of herbal remedy which could have a beneficial effect in hepatic fibrosis. This work addressed a novel mechanism by which GGCLT may be potentially against angiogenesis in chronic liver injuries. Common bile duct-ligated (BDL) fibrosis mice were treated with vehicle, GGCLT (10, 30 or 100 mg/kg), separately (twice daily for two weeks). Primary hepatic stellate cells (HSCs) were pre-incubated with GGCLT before tauro lithocholic acid (TLCA) stimulation. Real-time polymerase chain reaction, immunoblotting and immunohistochemistry stain analysis were used to measure specific markers. Treatment of GGCLT has resulted in dosage-dependent reduction of TLCA-induced expression of HIF-1 α and VEGF in the HSCs ($p < 0.05$). GGCLT significantly reduced ductular proliferation, portal inflammation, hepatic fibrosis and decreased hepatic α -SMA contents. Alanine aminotransferase, PAI-1, OPN and VEGFR1 levels were decreased in the GGCLT treated mice when compared to BDL groups. Furthermore, GGCLT treatment has reduced macrophage-mediated STAT3 phosphorylation and mRNA levels of inflammatory markers IL-6, IL-1 β , TNF- α and the p65 subunit of NF- κ B ($p < 0.05$). In conclusion, the hypoxia-angiogenesis signaling promotes liver cholestasis by enhancing HSCs activation and inflammatory response. Our studies demonstrate that GGCLT exhibits anti-inflammatory properties that are comparable to cholestasis both *in vivo* and *in vitro* and that these effects are mediated via the angiogenesis signaling pathway.

Biography

Hsuan-Miao Liu is a PhD candidate in the Department and Institute of Pharmacology at National Yang-Ming University. Her research interests include liver diseases, intestinal disorders and gut microbiota in improving the health.

joyamen@mail.cgu.edu.tw

Notes: