THERAPEUTIC EFFECTS OF YONGDAMSAGAN-TANG ON AUTOIMMUNE HEPATITIS MODELS

JIYOUNG PARK

College of Korean Medicine, Institute of Korean Medicine, Kyung Hee University, 26, Kyung Hee Dae-ro, Dongdaemun-gu, Seoul, 02447, Republic of Korea

Autoimmune hepatitis (AIH) is one of the immunity disorder disease that is resulted from that antibodies of own liver tissue are attacked by activated-immune cells, which is obviously unknown cause. Recently, numerous researches in autoimmune diseases have been studied and reveal that increased plasma IL-17 trigger multiple inflammation and disorder. Yongdamsagan-tang (YST), a mixture of 11 herbal extracts, is known in traditional Korean medicine and widely used for treatment of inflammatory diseases. In this study, to confirm the effects of YST on treatment of autoimmune hepatitis (AIH), a variety of extracts about YST plus Gentiana scabra (GS), which is main ingredient of YST, compare the anti-inflammatory effect on NO production in stimulated macrophage cells. Using most effective 80% ethanol extract of YST, we investigated the anti-inflammatory effect on reduction of interleukin-6 (IL-6) expression in hepatocyte cells and the anti-steatosis effect. Therefore, we observed the anti-fibrosis effect of YST by quantitative analysis of activation factor such as transforming growth factor-b (TGF- b1), collagen type 1 (Col-a1(I)), and a-smooth muscle act in (a-SMA) in stellate cells. This research provides understanding the anti-inflammatory, anti-steatosis, and anti-fibrosis effect of extracted by YST 80% ethanol and it suggests that YST used for treatment of AIH as therapeutic medicine.