

【P-46】

**Effect of Camellia Sinesis on The Expression of Collagen Type I
in Human Hepatic Stellate Cell Line LI90 and Hepatocellular
Carcinoma Cell Line HEPG2.**

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Tea is one of the most popular beverages in the world. It can be classified basically into three types depending on the manufacturing process; green, black, and oolong. In this study, the antihepatofibrotic effect of the solvent extracts from three teas (green tea, black tea and 10% fermented oolong tea) was investigated in human hepatic stellate cell line and hepatocellular carcinoma cell line. Previously, we reported that the effect of teas on the collagen secretion and cytotoxicity in hepatic stellate cells were different depending on the manufacturing process. In this study, the effect of solvents extracts of black and green teas on the collagen secretion and expression of collagen were observed in LI90 cells and HepG2 cell which were transiently transfected several collagen 1A2 expression related reporter plasmids. The effect of black tea extracts on the collagen secretion and cytotoxicity were different depending on the extract solvents. Ethanol extract of green tea and black tea inhibited the COL1A2 promoter activity significantly in the absence or presence of 10ng/mL TGF β 1. Also SBE2 reporter which is driven by two repeats of the CAGACA sequence identified as Smad binding element in the JunB promoter, was inhibited completely by ethanol extract of green tea in the absence or presence of 5ng/mL TGF β 1. Unlike the ethanol extract of black tea, the water extract of black tea stimulated the COL1A2 promoter activity in the absence of TGF-beta1, and inhibited slightly in the presence of 10ng/mL TGF β 1. Moreover, SBE2 reporter was rarely inhibited by both ethanol extract of black teas and water extract of black teas in the absence of TGF β 1, and was slightly inhibited as compared with ethanol extract of green tea in the presence of 10ng/mL TGF-beta1. Collectively, the green tea and black tea were reduced the basal activity and TGF β 1 induced luciferase activities, respectively, in Coll1A2 promoter and SBE2 driven reporter gene assay.

Keyword : Green tea, black tea, anti-hepatofibrosis, TGF β 1