Inhibitory effects of Mugwort-water extracts on liver damage induced 2,2'-azobis(2-aminodinopropane)dihydrochlroride

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In oriental medicine, mugwort(Artemisia capillaris: Compositae) which is a source of polyphenols has been used clinically for hepatic diseases. This study was performed to investigate the toxicological effect of mugwort-water extracts(MWE) on the hepatic function in vivo. 2,2'-azobis(2-aminodinopropane)dihydrochloride(AAPH) (60mg/kg) was administered intraperitoneally as free radical initiator to Sparague-Dawley male rats. Obtained results are as follows; orally administered MWE prevented the accumulation of thiobarbituric acid-reactive substances in the liver of AAPH-treated rats. AAPH treatment significantly(p<0.05) resulted in an increase in GPT and GOT activities comparing with the control, while MWE administered group significantly(p<0.05) decreased GPT and GOT activities, comparing with AAPH treated group. But there was no significantly(p<0.05) difference in plasma triglyceride of MWE administered group. However plasma total cholesterol and phospholipid are significantly(p<0.05) reduced in AAPH treated rats, MWE treated group significantly(p<0.05) increased the level of plasma total cholesterol and phospholipid, comparing with AAPH treated group. From these findings, it suggest that orally administered MWE may be very effective in recovering the hepatic function in acutely AAPH-treated rats.

Key words: Artemisia capillaris, AAPH, hepatic function, in vivo