

Hsian-tsao tea reduces hepatic triglyceride output and inhibits de novo lipogenesis by MAPK and AMPK activation

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Hsian-tsao (*Mesona procumbens* Hemsl.) is a popular herb in orient. This study aimed at investigating the hypolipidemic function, action mechanism and principles of Hsian-tsao tea (HT). HT were fractionated according polarity, and three compounds including one new compound, mesopro A and two known compounds, caffeic acid and kaempferol-3-O- β -D-glucopyranoside, were identified in the fractions displaying the most potent hypolipidemic activity. We first carried out an animal study by incorporating liophilised HT into atherogenic diet and feeding hamster for 6 wk. The serum triglyceride (TAG), cholesterol, VLDL-TAG and LDL-cholesterol in ADH group were significantly lower than those in the AD group ($P < 0.05$). Supplementation of HT did not affect liver lipids. In addition, HT reduces TAG output from hepatocytes via activation of MAPKerk and MAPKJNK pathway, concomitantly activates AMPK signaling, without causing TAG accumulation in hepatocytes.

Keywords: *Hsian-tsao; hypolipidemia; apoB; Hamster; HepG2 cells; mesopro A*

References

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