Dear Editor,

The recent report titled "Green tea extract supplementation ameliorates CCl4-induced hepatic oxidative stress, fibrosis, and acute-phase protein expression in rat" is very interesting and the results are promising.1 Hung et al1 compared the antioxidant capabilities of green tea extract (GTE), vitamin C, vitamin E, and β-carotene against superoxide (O2−), hydrogen peroxide (H2O2), and hypochlorous acid (HOCl) activity, and showed that GTE is the most efficient antioxidant to eliminate O2−, H2O2, and HOCl. GTE supplementation can also depress carbon tetrachloride (CCl4)-enhanced hepatic oxidative stress, fibrosis, acute-phase protein excretion, and hepatic dysfunction significantly. Similar results are shown in the latest publication by Cui et al2 titled "Protective effects of polyphenols-enriched extract from Huangshan Maofeng green tea (HMTP) against CCl4-induced liver injury." Their results clearly indicated that HMTP has a protective effect against in vitro oxidative stress, as well as acute oxidative hepatotoxicity induced by the administration of CCl4 in mice. The polyphenol profile of HMTP analyzed by high performance liquid chromatography showed that 4.72 mg/mg of epigallocatechin gallate (EGCG) was detected. Lambert et al3 also studied the potential hepatotoxic effects of high oral doses of EGCG (750 mg/kg or 1500 mg/kg) in mice. This means that 160 g/kg of HMTP or 2.3 g/kg of oral GTE will cause hepatotoxic effects in mice. These dosages are significantly higher than the ones used in both the Hung et al1 and Cui et al2 studies.

Therefore, these studies could provide useful references for using HMTP or GTE as a novel preventive and therapeutic measure for the treatment of oxidative stress-induced liver injury in the future.

References


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