

Hepatoprotective activity of compound K and ginsenoside Rb1 isolated from *Panax ginseng* on *tert*-butyl hydroperoxide–induced liver injury

Hae Ung Lee, Eun-Ah Bae, Eun Jin Kim, Dong-Hyun Kim
College of pharmacy, Kyung Hee University

The hepatoprotective effects of *Panax ginseng* have been reported by many researchers. To understand its hepatoprotective effects, we isolated ginsenoside Rb1 from *Panax ginseng* and its metabolite compound K, and investigated their hepatoprotective activities on *tert*-butyl hydroperoxide(*t*-BHP)-induced hepatotoxicity in mice and HepG2 cells. Intraperitoneally administered compound K significantly inhibited the increase of plasma ALT and AST activity induced by *t*-BHP in mice. However, ginsenoside Rb1 did not show the hepatoprotective effect. In addition, we also damaged human liver-derived HepG2 cells by *t*-BHP to induce toxicity. HepG2 cells preincubated with compound K protected cytotoxicity induced by *t*-BHP. These results suggest that ginsenosides may be prodrugs for hepatotoxicity.