

The protective mechanism of *Rubus coreanus* compound on Cisplatin-induced nephrotoxicity

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This study is investigated the effect of *Rubus coreanus* MIQ. against nephrotoxicity induced by cisplatin in rat. We examined the potency of the extract of *R. coreanus* fruits by the activity-guided fractionation. The EtOAc- and BuOH fraction, niga-ichigoside F₁ and 23-hydroxytormentonic acid showed significant protective effects as lipid peroxidation in renal tissue and was not affect the activity of xanthine oxidase and aldehyde oxidase by cisplatin-induced nephrotoxicity. The concentration of glutathione in renal tissue was decreased by cisplatin-induced nephrotoxicity, but was improved by pretreatment of *R. coreanus* compounds especially in butanol, ethylacetate fraction and 23-hydroxytormentonic acid.

Then, in order to investigate the effect of *R. coreanus* in glutathione synthesis or radical scavenging system using enzymes such as glutathione reductase, γ -glutamylcysteine synthase, catalase, glutathione peroxidase and glutathione S-transferase activities by cisplatin-induced nephrotoxicity which were improved by pretreatment of *R. coreanus* compounds but γ -glutamylcysteine synthase activity was not effected.

These results suggested that 23-hydroxytormentonic acid might be an active moiety of niga-ichigoside F₁ present in *R. coreanus*.