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## Effects of *Prunus persica* fruit on nicotine toxicity in animal model

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Nicotine is a major toxic component of tobacco used through cigarette smoking and has been recognized to result in oxidative tissue injury as an important risk factor for cardiovascular diseases, lung-related diseases and cancers. *Prunus persica* fruit has been used for the treatment of degenerative disorders such as hypermenorrhea, dysmenorrhea and infertility in Asia region including China, Korea and Japan. In this study, we investigated the protective effect of *Prunus persica* fruit extracts (PPFE) against chronic nicotine-induced tissue damages in animal model. Male ICR mice were injected intraperitoneally with nicotine (5 mg/kg body weight) and then orally administered with saline or PPFE (250 or 500 mg/kg body weight) once daily for 36 days. Chronic nicotine administration induced nephrotoxicity and hepatotoxicity in mouse serum. Nicotine also caused an increase in level of malondialdehyde (MDA) as a lipid peroxidation product, and decreases in glutathione (GSH) level and activities of antioxidant enzymes, including superoxide dismutase, glutathione peroxidase and catalase, in liver and kidney tissues. PPFE treatment, however, decreased MDA level, and recovered GSH level and activities of antioxidant enzymes. In addition, PPFE inhibited nicotine-induced histological changes and nitrotyrosine expression in tissues. These results suggest that PPFE may protect against tissue damages chronically exposed to nicotine.

### Biography

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