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ヤマブドウ成分による抗炎症､抗発がんプロモーション作用

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Objective: The purpose of this study was to determine whether a extracts from Yamabudo-grape juice (*vitis coignetiae pulliat*) (YG-juice) inhibit inflammation in mouse ears and anti-promotion of carcinogenesis in mouse skin two stage chemical carcinogenesis model.

Methods: YG-juice was successively treated using liquid-liquid extraction with n-hexane and then ethyl acetate. Each extraction was performed for three times at room temperatures, and extracts obtained were dried under reduced pressure at 40℃. The residues were dissolved and examined the anti-mutagenicity in the Ames test. For the TPA-induced ear acute edema assays, both the inner and outer surfaces ears of male SENCAR mice were treated with 10 μL of EtOAc extracts (80 mg/mL in acetone) or vehicle control (acetone) 30 min prior to application of 1.7 nmol (10 μL) of TPA in acetone. The mice were sacrificed 6h after last of TPA treatment and effects of the EtOAc extracts on ear edema were determined. For two-stage skin carcinogenesis assay, one week after initiation with DMBA, mice were treated twice weekly with topical application of Yamabudo-grape juice 30 min prior to TPA promotion for 20 weeks.

Results and discussion: We found that EtOAC extracts of YG-juice could inhibit the mutagenicity of Trp-P-2 in Ames test more efficiently than that found with original juice and Hexane extracts. In mouse ears model, a topical application of EtOAC extracts before TPA treatment inhibited TPA-induced edema of mouse ears significantly. YG-juice decreased the mean number of tumors per mouse and delayed tumor development in mouse skin. Results of present studies indicated that biochemical active compounds contained in Yamabudo juice were exhibited *in vivo* anti-carcinogenic and anti-inflammatory effects in the mouse skin.