Antioxidant, Cytotoxicity and Chemosensitizing Effects of Trichosanthis Semen (*Trichosanthes kirilowii*) Extracts

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*Trichosanthes kirilowii* is a traditional medicine plant, widely cultured in Asia. Which has been used as a constipation, jaundice, consumption, and thirst. The extract of persimmon leaf exhibited strong antioxidant activity when compared to BHT in 1,1-diphenyl-2-picryl-hydrazyl (DPPH) method. Antioxidant activity (RC₅₀) was shown lower in trichosanthis semen extracts (256 µg/ml) than BHT (58.26 µg/ml) as a synthetic antioxidant. The cytotoxic effect in vitro on the growth of human lung cancer cell (Calu-6) was evaluated by methyletrazolium (MTT) assay. Also multidrug resistance reversing activity was evaluated using drug sensitive AML-2/WT and multidrug resistance AML-2/D100 cells. The trichosanthis semen extracts showed the strongest inhibitory effects on Calu-7 (IC₅₀=78 µg/ml) and AML-2/WT (IC₅₀=308 µg/ml). Chemosensitizing effect was the trichosanthis semen extracts (IC₅₀=202 µg/ml, RF = 1.4) strongly potentiate vincristine cytotoxicity in AML-2/D100 cells. This results indicated that the trichosanthis semen extracts would contain some principles which have chemosensitizing activity.

-Acknowledgements-
This work was supported by a grant from BiGreen 21 Program, Rural Development Administration, Republic of Korea.

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