Effects of the Korean Propolis on antibacterial activity and cellular immune functions in mice in vitro

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Antibacterial activity of Korean propolis water extract was studied. In the case of S. aureus(22 strains), E. faecalis(23 strains) and Kl. pneumoniae(24 strains) showed relatively good results as an antimicrobial agent. Extracts of propolis were also evaluated for their capacity to stimulate cellular immune function by peripheral mononuclear cells(PBMC) from normal mice. PBMC isolated on a Ficoll-hypaque density gradient were tested in the absence or presence of varying concentrations of each extract for natural killer(NK) cell activity versus K562 cells and antibody-dependent cellular cytotoxicity(ADCC) against human herpesvirus 6 infected H9 cells. Furthermore, comparison between Korean propolis and American propolis was examined by the same method.

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Mechanisms of vasorelaxant effect of a pyranocoumarin isolated from Peucedanum japonicum Thunb. in rat thoracic aorta.

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We examined the mechanisms of vasorelaxant effect caused by a pyranocoumarin, (+)-cis-4'-acetyl-3'-angeloylkhellactone(compound 1), one of the bioactive components of the *Peucedanum japonicum* Thunb.. Compound 1(10^{-6} - 10^{-4} M) concentration-dependently relaxed the isolated rat thoracic aorta precontracted with phenylephrine(PE). This vasorelaxant potency was diminished by endothelial removal(by 20%). Pretreatments of L-N^G-nitro arginine and methylene blue(MB) attenuated the vasorelaxant effect of compound 1. But indomethacin did not affect the vasorelaxant potency. These indicate that the vasorelaxant effect of compound 1 was partially endothelium dependent and mediated by nitric oxide and cyclic GMP pathway.
To determine if compound 1's effect was mediated through the activation of some of the receptor known to lead to vascular relaxation. Compound 1 induced vasorelaxation was not affected by atropine, triprolidine and propranolol.
Compound 1 inhibited high potassium(80mM)-induced, calcium-dependent contraction in a concentration-dependent manner. But compound 1 slightly relaxed the rat aorta precontracted with PE in the presence of nifedipine, a blocker of voltage-operated calcium channels. TEA(a nonspecific K^+ channel blocker) did not affect the vasodilatory effect of compound 1 against PE-induced contraction.
Mechanisms of compound 1's vasorelaxant effect were multiple, including endothelium dependence and Ca^{2+} channel blockade.

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Antilipoperoxidant Activity of Cordyceps staphylinidaecola on CCl4-Induced Hepatotoxicity

Kim YS, Kim EJ ,Yang KS and Sung JM'