

**P27 INFLUENCE OF TOTAL GINSENG SAPONIN ON NICOTINIC
STIMULATION-INDUCED CATECHOLAMINE SECRETION
FROM THE PERFUSED RAT ADRENAL GLAND**

Dong-Yoon LIM, HYEON CHOI, *Soon-Pyo HONG, **Suk-Tai KO

Dep't of and Pharmacology and *Cardiology, College of Medicine and

**Pharmacy, Chosun University, Kwangju 501-759, KOREA

The present study was designed to examine the effect of total ginseng saponin on CA secretion evoked by activation of nicotinic receptors from the isolated perfused rat adrenal glands.

Total ginseng saponin given (100 ug/20 min) into an adrenal vein did fail to produce alteration of spontaneous CA release from the rat adrenal medulla. Acetylcholine (5.32 mM)- and DMPP (100 uM, a selective nicotinic receptor agonist)-evoked CA secretory responses were reduced markedly by the pretreatment with the total ginseng saponin at a rate of 100 ug/6.2 ml/20 min, respectively.

CA secretory responses evoked by high potassium (56 mM, a membrane depolarizing agent) and Bay-K-8644 (10 uM, a calcium channel activator) were also depressed by pre-treatment with total ginseng saponin.

Taken together, from the experiment result, it is thought that total ginseng saponin can inhibit the releasing effect of CA evoked by nicotinic receptor stimulation from the isolated perfused rat adrenal medulla, which seems to be associated to the direct inhibition of calcium influx into the rat adrenomedullary chromaffin cells.