[PA1-27] [10/18/2001 (Thr) 14:00 - 17:00 / Hall D]

Inhibitory mechanism of rat aortic vascular smooth muscle cell proliferation by apigenin

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Apigenin, a plant flavone, derived from the chinese herb *Apium graveolens* L. *Var. dulce DC* has a variety of pharmacological activities including hypotensive, anti-inflammatory, anti-spasmotic and anti-diarrhoeal effects. The objective of this study was to investigate the effects of apigenin on the growth factor-induced proliferative responses, mitogen-activated protein kinase (MAPK) and its down stream c-fos mRNA expression of rat aortic vascular smooth muscle cells (VSMCs). Apigenin significantly inhibited 5% fetal bovine serum- and 50ng/ml platelet derived growth factor-BB-induced proliferation in a concentration-dependent manner in cultured rat aortic VSMCs. In addition, we also found that apigenin resulted in a significant inhibition of the fetal bovine serum-induced phosphorylation of extra cellular signal-regulated kinase 1/2 (ERK 1/2). Moreover, apigenin potently inhibited fetal bovine serum-induced c-fos mRNA level. These results showing the inhibitory effect of apigenin on cell proliferation with down regulation of ERK 1/2 signal and c-fos pathway response in rat aortic VSMCs suggest that apigenin may be a useful preventive agent for cardiovascular disease including atherosclerosis.

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Effect of SPP002 on the contraction of the isolated rat uterus

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The SPP002 is a mixture of extracts from Cervi parvum Cornu, Angelicae gigantis Radix and Cnidii Rhizoma. The objective of this study was to characterize in vitro the effect of SPP002 on the contractility of the non-pregnant and pregnant rat uterus. Pregnancy was confirmed by presence of the deep vaginal plug at 12 hr after mating. The uterus from pregnant rats on day 17 or 18 was removed and the fetuses were gently expelled. Non-pregnant rats were excited by pretreatment of 6-estradiol benzoate for 2 days. The isometric contractile force and frequency of uterus were recorded with a force transducer and a polygraph. The SPP002 (1-300μg/ml) selectively elevated uterine contractile force in pregnant rat uterus while the oxytocin (0.1-10 mU/ml) elevated uterine contractile force and frequency in both pregnant and non-pregnant rat uterus, respectively. We conclude that SPP002 produces an increase in the pregnant rat myometrial activity in vitro, independent of oxytocin.

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Free Radical Scavenging Effects of MeOH extracts of various Cacti

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The MeOH extracts of 42 species of cacti were examined for their *in vitro* antioxidative activity. The antioxidative activity was determined by scavenging effects of 1-diphenyl-2-picrylhydrazyl (DPPH) radical, and then was compared to L-ascorbic acid. The approximate flavonoid aglycone contents were also determined spectrometrically at 425nm with the aid of aluminium chloride ($AlCl_3$). Almost all cactus