SKLJI was tested for analgesic effects in the acetic acid꽍induced writhing test and the Randal-Sellito model. At 0.1, and 1 ??/?? (i.v., i.m.), SKLJI significantly reduced the writhes number induced by acetic acid injection in mice. Higher dose of diclofenac (4.5, 45 ??/??) was needed to elicit a similar effect. In the paw pressure test, SKLJI showed a significant effect at 10 ??/?? (i.v.), similar to potency of 100 ??/?? (p.o.) acetaminophen or 5 ??/?? (i.v.) diclofenac.
To search for the mode of action, arachidonic acid cascades and other inflammatory mechanisms were investigated. SKLJI significantly inhibited LTB4 production induced by calcium ionophore A23187 in human whole blood, and also significantly reduced TNF-α release in human whole blood.
The major components of SKLJI were LO and SW, which also showed potent anti-inflammatory and analgesic effects.

These results suggest that SKLJI is a new herbal injectable agent with anti-inflammatory and analgesic effects and that its two active major ingredients are LO and SW.

[PA1-45] [04/17/2003 (Thr) 14:00 - 17:00 / Hall P]

Inhibitory effects of berberine on morphine-induced behavioral sensitization in mice

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The present study was investigated the effect of berberine on the development of behavioral sensitization by morphine, methampethamine, and cocaine. Repeated administration of morphine (10 mg/kg), methampethamine (2 mg/kg), and cocaine (15 mg/kg) produced behavioral sensitization in mice. Pretreatment with berberine (2 mg/kg) did not inhibit methampethamine- and cocaine-induced behavioral sensitization. However, Pretreatment with berberine significantly inhibited morphine-induced behavioral sensitization.
In this experiment, pretreatment with berberine did not decrease postsynaptic dopamine receptor supersensitivity induced by apomorphine 24h after morphine sensitization, suggesting that inhibition by berberine of morphine-sensitization is not related to the dopaminergic system. However, berberine was significantly reduced the morphine-induced NR2A and NR2B expression in the cortex and was tend to decrease morphine-induced NR1 expression, compared with morphine-treated group.
These results indicate that NMDA receptor subunit expression plays an important role in modulating of morphine-induced sensitization and suggests that inhibitory effect by berberine of morphine-induced behavioral sensitization are mediated by the inhibition of NMDA systems.
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[PA1-46] [04/17/2003 (Thr) 14:00 - 17:00 / Hall P]

Anti-angiogenic activity of mycelial extracts from Cordyceps militaris, Cordyceps scarabaeicola and Paecilomyces tenuipes

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Dongchunghacho is traditionally believed to be effective against various diseaseas. It includes many different genera such as Cordyceps, Paecilomyces, Torrubiella and Podonectria. The three fungus strains, Cordyceps militairs, Cordyceps scarabaeicola and Paecilomyces tenuipes were

individually cultivated as suspension cultures in potato dextrose broth. Mycelia obtained from each suspension culture were extracted with 70% ethanol. All three 70% ethanolic extracts showed strong anti-angiogenic activity in the chick embryo chorioallantoic membrane (CAM) assay, which was dose-dependent. Cordycepin, an inhibitor of RNA synthesis identified in some Dongchunghacho species, also showed anti-angiogenic activity in the CAM assay. Anti-inflammatory and analgesic activities of the ethanolic extracts were examined using croton oil-induced ear edema assay and writhing test, respectively.

[PA1-47] [04/17/2003 (Thr) 14:00 - 17:00 / Hall P]

Neuroprotective Effect of Polygae Radix on the Brain Ischemia Induced by Four-Vessel Occlusion in Rats

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The effects of methanolic extracts of Polygalae Radix (PR 100mg/kg) was tested to evaluate on the neuroprotective activity (92% $p<0.001$) on global cerebral schemia. Based on bioassays guided fractionation, butanol soluble fraction (BtOH 25mg/kg) had the neuroprotive effect (87% $p<0.001$) of global cerebral ischemia in rat. Oxygen free radical injury plays an important role in neuronal damage induced by brain ischemia and reperfusion. The effects of PR as a free radical scavenger was studied using transient global ischemia model. In a model of ischemia reperfusion with 4-vessel occlusion for 10 min and restoration of circulation for a period of 20 min. PR inhibited Fe2+ induced MDA production and showed 58% protection from tissue damage as compared with control. These results showed that PR could be has a neuroprotective effect against neuronal damage following global ischemia.

[PA1-48] [04/17/2003 (Thr) 14:00 - 17:00 / Hall P]

NK cell and macrophage activation is associated with antimetastatic effect of Korean *mistletoe lectins*

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The inhibitory effect of the lectins (KML-C) isolated from Korean *mistletoe* (KM; *Viscum album* coloratum), on tumor metastases produced by highly metastatic murine tumor cells, B16-BL6 melanoma, colon 26-M3.1 carcinoma and L5178Y-ML25 lymphoma cells, was investigated in syngeneic mice. An intravenous (i.v.) administration of KML-C (20-50 ng/mouse) 2 days before tumor inoculation significantly inhibited lung metastasis of both B16-BL6 and colon 26-M3.1 cells in experimental lung metastasis models. The effect of KML-C on inhibition of tumor metastasis was also observed. In the assay for natural killer (NK) cell activity, i.v. administration of KML-C (50 ng/mouse) significantly augmented NK cytotoxicity against NK-sensitive Yac-1 tumor cells 2 days after KML-C treatment. In addition, treatment with KML-C (50 ng/mouse) resulted in induction of tumoricidal activity by peritoneal macrophages against B16-BL6 cells. These results suggest that KML-C has immunomodulating activity which enhances the host