substance, The antimicrobial activity of fraction 6 of the methanol extract from the sample had strong growth inhibition activity gram-positive bacteria and gram-negative bacteria such as S. aureus, B. subtilis and P. aeruginosa (MIC, 6.25 μg/ml).

[PA1-20] [04/21/2000 (Fri) 10:30 - 11:30 / [1st Fl, Bldg 3]]

Pharmacological studies on the efficacy and safety for the therapeutic drugs of liver diseases. - Effect on the Lipocyte activation

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These studies were conducted to evaluate in vitro the efficacy of the Yinchinho- Tang, herbal medicine used to treat liver diseases. When it comes to the chronic liver diseases, it usually progress to cirrhosis through fibrosis. Hepatic lipocytes are the primary extracellular matrix-producing cells in liver fibrosis. During the development of liver injury, they undergo activation, which is a process characterized by cell proliferation, morphological transformation into myofibroblast-like cells and synthesis of excessive extracellular matrix components. We established a cell culture model of lipocyte activation, which can be mimicked by cells grown on uncoated plastic plate. In this study, cell proliferation was assessed by brdU incorporation into DNA and transformation was done by expression of smooth muscle-specific α-actin(α-SMA). Yinchinho-tang significantly inhibited lipocyte proliferation in dose-dependent manner, and markedly reduced α-SMA expression. Gardeniae fructus remarkably suppressed proliferation in dose-dependent manner, but it increased α-SMA expression. Artemisiae capillaris herba significantly inhibited proliferation under the conc. of 500㎍/㎖, but enhanced it in 2000㎍/㎖. Rhei rhizoma didn't have any effect on proliferation. In summary, we have clarified effects of yinchinho-tang on liver fibrosis and suggest that this effect is related with inhibition of lipocyte activation.

[PA1-21] [04/21/2000 (Fri) 10:30 - 11:30 / [1st Fl, Bldg 3]]

Anti-angiogenic activity of Korean Mistletoe(Viscum album var. coloratum)

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Extracts of white berry European mistletoe(*Viscum album* L.) are widely applied the treatment of various human cancers as a supplement therapeutic agent. It was reported that mistletoe extract induces apoptotic killing of cultured tumor cells and lymphocytes, stimulates the immune system, and protects DNA from the side effects caused by chemotherapy and radiation. Korean mistletoe lectin(KML) from this plant was isolated by affinity chromatography using asialofetuin immobilized Sepharose 4B. The molecular weight determined by SDS-PAGE was 60 kDa which consisted of a 31.5 kDa of A-chain and a 34.5 kDa of B-chain. We investigated the anti-angiogenic effect of water extract of Korean mistletoe(WKM) and Korean mistletoe lectin(KML) by chorioallantoic membrane(CAM) of growing chick embryos.
WKM and KML showed anti-angiogenic activityat at 0.25ug/ul and 0.025ug/ul, respectively. In addition, anticancer activities of WKM and KML on the proliferation, motility and invasion of human cancer cells were observed.

[PA1-22] [04/21/2000 (Fri) 10:30 - 11:30 / [1st Fl, Bldg 3]]

General Pharmacological Activities of Catus Seed(II)

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This investigation was designed to general pharmacological activities from catus(Opuntia ficus-indica var saboten Makino) seed by dry powder from Cheju Island. All of the catus seed extract showed the measurable non-contractile on the isolated rat duodenum and not influenced the normal mean BP in anesthetized rat. And we are measured phenobarbital-induced sleeping time, locomoter activity, rotarod test, body tempreture, MES-induced seizure, strychnine-induced seizure and PTZ-induced seizure which were influence CNS did not effected by the treatment of catus seed. Carrageenan-induced paw edema and hot plate test in rats and acetic acid-induced writhing test in mice were used as animal models to search antiinflammatory and analgesic activities. Respectively, the treatment of catus seed showed an inhibitory effect on acetic acid-induced writhing and hot-plate test indicating that it also contained analgesic activity and showed an inhibitory effect on carageenan-induced paw edema.

[PA1-23] [04/21/2000 (Fri) 10:30 - 11:30 / [1st Fl, Bldg 3]]

Effect of Polygalae Radix on Cerebral Ischemic and Reperfused Injury

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The present study was undertaken to determine whether Polygalae Radix administration could improve cerebral metabolism during ischemia and subsequent reperfusion. Brain ischemia induced by bilateral common carotid artery(CCA) occlusion in Mongolian gerbil. After 10min occlusion, brains were recirculated for 30 min. 5 Fractions(Methanol, n-hexane, EtoAC, n-BuOH, H2O) of Polygalae Radix were administered orally 2hrs before CCA occlusion respectively. The animals were killed by decapitation and isolated brain was homogenized and centrifuged. ATP content, lactate content and lipid peroxide were measured in brain homogenate. In ischemic control animals, the level of ATP significantly dropped after ischemia and reperfusion. This decrease significantly suppressed by n-BuOH treatment. The content of lactate significantly increased in ischemic control animals. This increase was prevented by all Polygalae Radix fractions except n-Hexane fraction. The Lipid peroxidation, malondialdehyde(MDA), a end product of lipid peroxidation, markedly increased by cerebral ischemia and reperfusion. This increase was inhibited by n-BuOH fraction. These results indicate that n-BuOH fraction has the highest potency in cerebral ischemic injury.

[PA1-24] [04/21/2000 (Fri) 10:30 - 11:30 / [1st Fl, Bldg 3]]

Effects of Samultang on Immune Function during the late stage of Pregnancy in Mice

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The purpose of this research was to investigate effects of Samultang water extract (SMT) on cytokines production from immune cells during the late stage of pregnancy in BALB/c mice. SMT (500 mg/kg) was administered p.o. once a day for 7 days, and then thymocytes and peritoneal macrophages were separated. At the late stage of pregnant mice, the proliferation of thymocytes and the production of gamma-interferon in thymocytes were decreased as compared with normal