its subfractions, butanol fraction, n-hexane and H2O fraction, by D-galactosamine induced hepatitis model. We analyzed s-GOT and s-GPT activities. In this experiment, 70% ethanol extract showed the hepatoprotective effect at the dose of from 25 to 200 mg/kg, especially maximum effect was observed at the dose of 50 mg/kg. In addition, acute hepatitis was ameliorated by butanol fraction. However, it was aggravated by hexane fraction.
Acute oral toxicity test was also performed with the butanol and hexane subfraction of Jejo. We administrated orally doses of 1.25, 2.5 and 5 g/kg of both fractions in ICR mice. In these experiments, there were no death, clinical changes and abnormal autopsy finding. In acute intraperitoneal toxicity test, we administrated intraperitoneally doses of 0.25, 0.5 and 1.0 g/kg of both subfractions in ICR mice. There were no death and clinical changes. However, hexane fraction showed intraperitoneal adhesion in autopsy finding
In conclusion, these results suggested that ethanol extract of Jejo and butanol subfraction of thereof contain the hepatoprotective components and hexane fraction have the toxic components of Jejo.

[PD3-14] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

Anti-anemic effects of Sa-Mul-Tang (Si-Wu-Tang), a traditional chinese formulation, on phenylhydrazine-induced anemic rats.

Kim TH°, Kwon YS, Lee JH, Yook CS and Ryu JH

Department of Oriental Pharmaceutical Science, College of Pharmacy, Kyung Hee University

Sa-Mul-Tang (Si-Wu-Tang, SMT), a kind of Chinese medicine, has been used for the hemato-deficient disease for hundreds of years. In this work, investigations on the anti-anemic activity of an aqueous extracts of SMT were undertaken in order to find the pharmacological basis for the ethnomedical use of the formulation. Three kinds of Angelicae species, such as Angelica gigas, Angelica chinensis, and Angelica acutiloba, were used for preparing the water extracts of SMT. Anemic model rats were induced by the treatment of phenylhydrazine (40 mg/kg/day, i.p.) for 4 days. After the treatment of phenylhydrazine, rats were divided into several groups for their different treatment of three kinds of SMT. Oral administration of SMT (1 g/kg/day) for 14 days did not affect any kinds of blood cell types compared with those of phenylhydrazine-treated group. However, the administration of SMT improved the erythrocyte deformability in phenylhydrazine-treated group ($p<0.01$). Especially, these effect was high in the Angelica chinensis group. These results suggest that SMT has an ameliorative effect on blood rheology related to the blood stasis syndrome in oriental diagnostics.[Supported by Kyung Hee University Grant 2000-1U0100010]

[PD3-15] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

Molecular authentication of Panax ginseng species by RAPD analysis and PCR-RFLP

Um JY, Chung HS, Kim HJ, Lee YM, Kim HM, Kim JJ

Dep. of Oriental Pharmacy, College of Pharmacy, Dep. of Anatomy, College of Midicine, Wonkwang University

In order to develop convenient and reproducible methods for identification of ginseng drugs at a DNA level, RAPD(Randomly amplified polymorphic DNA) and PCR-RFLP(PCR-Restriction fragment length polymorphism) analyses were applied within Panax species. To authenticate Panax ginseng among Chinese and Korean ginseng population RAPD analysis were carried out using 20 mer-random primer. The similarity coefficients among the DNA of ginseng plants analyzed were low, ranging from 0.197 to 0.491. In addition, using PCR-RFLP analysis, very different fingerprints were obtained within Korean ginseng plants. These results suggest that these methods are able to authenticate the concerned Panax species. Broader application of this approach to authenticate

other morphologically similar medicinal materials is rationalized.

[PD3-16] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

Hepatoprotective, Diuretic and Anti-inflammatory Activities of the Extract from Portulaca oleracea L.

Lim JP°, Suh ES, Kim DK, Shin TY, Jeon H

College of Pharmacy, Woosuk University

Hepatoprotective, diuretic and anti-inflammatory activities of the water extract of Portulaca oleracea were studied. The extract showed 59.4% in s-GPT and 55.8% in s-GOT compared with sylimarin against CCl4 intoxication and 43.7% diuretic activity compared with furosemide in mice. It showed 61.8% anti-inflammatory activity compared with indomethacin against the carrageenan-induced inflammation in rats.

[PD4-1] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

Impurity profiling analysis of methamphetamine seized in Korea (II)

Kim EM°[1], Park MJ[1], Lee JS[1], Chung HS[1], Yoo YC[1], Baek SH[2], Park JI[2], Sung NK[3]

[1]National Institute of Scientific Investigation, [2]College of Pharmacy, Seoul National University and [3]College of Statistics, Ewha Womans University

Impurity profiling analysis of methamphetamine seized was investigated for the evidential and intelligent purpose. A gas chromatographic procedure was activated to separate and quantify impurities in illicit methamphetamine using DB-1 wide-bore capillary column for profiling. About 100mg of seized methamphetamine was dissolved in 1mL of phosphate buffer and extracted with 200 uL of ethylacetate which contains two different internal standards of dioctylsebacate and diphenylamine. The melting points of samples were also evaluated in this procedure.
A total of 172 methamphetamine samples were analyzed for impurity profiling. The peak area ratio and relative retention time of impurities were evaluated using in-house computer program. For the classification of samples, firstly, 20 impurity peaks were selected after inspection of every peak in 172 samples as the specific markers of impurities. By Ward method, samples were clustered into 6 different groups. There were 10 samples which were not grouped. The ions of illicit methamphetamine obtained from mass spectrometry will be added in-house program for classification of samples. The analysis of impurities in illicit methamphetamine has shown to be an effective means of characterizing and matching samples.

[PD4-2] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

Hair-growth Effect of chrysin 7-O-cyclopropanecarboxylate

Jang JM°, Kim KS, Lee SH, Jung JH, KIM YB, KIM BK

College of Pharmacy, Seoul National University, College of Pharmacy, Samyok University

The derivative of chrysin 7-O-cyclopropanecarboxylate was synthesized by condensing