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Dried fruits of Lycium chinense were extracted with EtOH and evaparated in vacuo. The extract was suspended in water and partitioned CHCl3-MeOH mixture (5:1).
The extract was fractionated by RP column chromatography using MeOH to give 7 fractions. Fraction 3 was chromatograghed on SiO2 (CM=10:1→0:1), sephadex LH-20 column (MeOH), and then was purified by HPLC (AcCN-H2O=25:75) to afford compound 1. Fraction 4 was subjected to SiO2 column chromatography to give 6 subfractions. HPLC (AcCN-H2O=25:75) of subfraction 2, 5 affroded compound 2, 3 respectively. The structures of these compounds were identified as 4-[2-formyl-5-(hydroxymethyl)-1H-pyrro-1-yl]butanoic acid (1), 4-[2-formyl-5-(methoxymethyl)-1H-pyrro-1-yl]butanoic acid (2), 4-[2-formyl-5-(methoxymethyl)-1H-pyrro-1-yl]butanoate (3).

[PD2-5] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Quantitative analysis of orcinol and acute toxicity of Gyrophora esculenta

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In previous study, *Gyrophora esculenta* showed significant inhibitory effect on α-glucosidases *in vitro* and blood glucose elevation *in vivo* . In the isolating process of active substance, orcinol was separated from *Gyrophora esculenta*. Orcinol is known to be toxic, therefore, in this study, it was analyzed by the TLC densitometry method for quantitative determination from *Gyrophora esculenta*. The average amount of orcinol of *Gyrophora esculenta* was 0.2 %. For the purpose of removing orcinol, the water extract of *Gyrophora esculenta* was sequentially fractionated by organic solvents, and the acute toxicity of each fraction was assessed in mice. Among them, the LD_{50} of butanol fraction was 1.19g/㎏(p.o.) and the weight increase of mice in that group was somewhat retarded.

[PD2-6] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Separation of Cornus Officinalis components by Centrifugal Partition Chromatography

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Centrifugal Partition Chromatography(CPC) method has adventages for saparation of compounds from complex natural product mixtures, such as herbal medicines, by reducing material losses and allowing a higher stationary phase to sample volume ratio than allowed by Counter Current Chromatography(CCC) or HPLC. With these advantages, CPC may be a separation method of choice in the area of natural products, especially in supporting the bioassay-guided fractionation of extracts. The most important factor for successful CPC separation is an appropriate two phase solvent system, and so designing a solvent system is the focal point of the isolation operation. Here we separated and identified four iridoids and other two compounds from fruits extracts of Cornus officinalis(Cornaceae) that are used as a traditional medicine in Korea, Japan, and China for kidney tonic, analgesic, diuretic and antiosteoporotic effect of type 1 osteoporosis, using two different solvent systems: dichloromethane -methanol -n-propanol-water(5:6:1:4) and chloroform-methanol-water(9:12:8) using both two ascending and descending modes.