

methylchromone (2), respectively, based on spectroscopic evidences and direct comparison with synthetic compounds. (1) was found from urine, bile and blood, while (2) was found from urine and bile.

[PD4-17] [10/19/2000 (Thr) 15:00 – 16:00 / [Hall B]]

Analysis of Four Herbal Medicines by Pattern Recognition Method

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Chromatographic pattern recognition method was applied to the analysis of four herbal medicines, namely, Caryophylli Flos, Curcumae Rhizoma, Amomi Semen, and Asiasari Radix. Reference herbal medicine, which is a standard in components and their contents, was prepared by mixing the same amount of samples collected over the country. Each sample was analyzed by pattern recognition method using reference herbal medicine as a standard. Mean values of content ratio of 40–50 samples of Caryophylli Flos, Curcumae Rhizoma, Amomi Semen, and Asiasari Radix were $100 \pm 13.3\%$, $97.0 \pm 16.3\%$, $101 \pm 10.6\%$, and $98.7 \pm 9.64\%$, respectively. Similarities between reference medicine and test sample were $89.5 \pm 6.14\%$, $84.2 \pm 5.24\%$, $88.3 \pm 5.17\%$ and $84.2 \pm 5.40\%$, respectively. Chromatographic pattern recognition was very successful for the quality control of herbal medicines.

[PD4-18] [10/19/2000 (Thr) 15:00 – 16:00 / [Hall B]]

Analysis of the compounds in Citrus junos

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The fruit of Citrus junos Sieb has long been used in folk medicine for a cough remedy, an expectorant and an aromatic bitter pectic. Limonoids, coumarines and flavonoids were reported from various Citrus plants. Reported biological activities from these compounds include antitumor, cancer chemopreventive, antihypertensive, cholesterol-lowering, and antithrombogenic activities. C. junos is cultivated mainly in Korea, China and Japan. It is consumed as fruit, junos honey and junos juice in Korea. We studied chemical constituents of the ripe fruit of C. junos cultivated in the southern seashore in Korea. Seven compounds were isolated and their structure were elucidated based on the physicochemical properties and spectroscopic evidences, namely, umbelliferone, hispidulin, 9-hydroxy-4-methoxypsoralen, aurapten, cirsimaritin, limonin, and deacetyl-nomilin. The contents of these seven compounds in the peel and the flesh of the fruit of C. junos were determined by HPLC. The contents in the peel were 0.006, 0.025, 0.011, 0.183, 0.022, 0.137 mg/g, and trace, respectively, while they were 0.001, 0.005, 0.004, 0.006, 0.004, 0.022 mg/g, and trace in the flesh.

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

Seven new dammarane glycosides from heat processed ginseng

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We reported that the steaming of ginseng increase its biological activity. In the course of study on chemical constituents of steamed ginseng, we isolated seven new ginsenosides named as ginsenoside Rk1, Rk2, Rk3, Rs4, Rs5, Rs6 and Rs7. There structure was elucidated based on spectroscopic and physico-chemical evidence. Ginsenoside 20(S)-Rg3, 20(R)-Rg3, Rg5, Rg6, F4, Rh4, 20(S)-Rs3, 20(R)-Rs3 and Rs4 were also isolated.

[PD4-20] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

Antioxidative Activity of Siegesbeckia Herba extract

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To investigation the antioxidative activity of Siegesbeckia Herba, this study was carried out. Through the examination of MeOH, BuOH and CH₂Cl₂ extracts from Siegesbeckia Herba for radical scavenging effects using DPPH method. A various organic extract of Siegesbeckia Herba showed 90-95 % of the antioxidative activities when measured by the method of absorption spectrophotometer. Especially, antioxidative activities of BuOH extracts were higher than CH₂Cl₂ extracts. Above all, antioxidative activities of Heat treatment were higher than non-treatment or antioxidative activities of acid hydrolysis were higher than Base hydrolysis.

[PD4-21] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

Effects of some crude drug extracts on the brain neurotransmitters in the ethanol-treated rats

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The concentration of neurotransmitters in rat brain was determined by HPLC-ECD method and the effects of methanol extracts of some crude drugs on the concentration of neurotransmitters in the ethanol-treated rat brain were investigated. By the administration of ethanol, dopamine (DA), 3,4-dihydroxyphenyl acetic acid (DOPAC) and serotonin (5-HT) levels in frontal cortex and 5-HT level in hippocampus were significantly increased compared with the neurotransmitter levels in the brain of saline-treated rats. The γ -aminobutyric acid (GABA) level in frontal cortex was decreased by the same treatment. There was a tendency that the DA level in frontal cortex and striatum of ethanol-treated rats were increased by the administration of crude drug extracts. Especially, Myrrha and Visci Herba significantly increased the DA level of frontal cortex in ethanol-treated rats, while they significantly decreased the 5-HT level in the same region of the brain. GABA level in striatum of ethanol-treated rats was significantly decreased by Myristicae Semen, Visci Herba and Myrrha. These results suggest that the tested crude drug extracts have selective interaction with neurotransmitters in specified region of central nervous system.

[PD4-22] [10/19/2000 (Thr) 15:00 - 16:00 / [Hall B]]

A Survey on Pesticide Residues of Commercial Agricultural Products in the Northern area of Seoul (I)