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Salix species have been used for antipyretic, analgesic and diuretic agents. Ten flavonoids (diosmetin-7-O-β-D-glucopyranoside(I), diosmetin-7-O-β-D-glucopyranoyl(1→6)β-D-glucopyranoside(II), diosmetin-7-O-β-D-xylopyranoyl(1→6)β-D-glucopyranoside(III), hyperoside(IV), quercetin-7-O-β-D-glucopyranoside(V), rutin(VI), luteolin(VII), luteolin-7-O-β-D-glucopyranoside (VIII), Kaempferol-3-O-α-L-rhamnopyranosyl(1→6)-β-D-glucopyranoside (IX), and (+)-catechin(X)) have been isolated from the leaves of *Salix hallaisanensis* and their anti-oxidative activity were determined with DPPH method. Six compounds showed significant anti oxidative efficacy. Among these compounds, quercetin glycosides and luteolin glycoside were more potent radical scavenging activity as compared to ascorbic acid.

[PD2-69] [10/19/2001 (Fri) 14:00 - 17:00 / Hall D]

Phenylpropene C, a New Inhibitor of Acyl-CoA: Cholesterol Acyltransferase Produced by *Penicillium griseofulvum* F1959

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Acyl-CoA: cholesterol acyltransferase (ACAT, EC 2.3.1.26) is responsible for intracellular esterification of cholesterol and plays a key role in intestinal absorption of cholesterol, hepatic production of lipoproteins and accumulation of cholesteryl esters within macrophages and smooth muscle cells of the atheroma. Therefore, ACAT is an attractive target for new treatments of hypercholesterolemia and atherosclerosis. In the course of our search for ACAT inhibitors from microbial sources, phenylpropene C was isolated from the fermentation broth of *Penicillium griseofulvum* F1959. The structure of phenylpropene C was determined by NMR and MS spectroscopy. Phenylpropene C inhibited ACAT activity with the IC₅₀ value of 16.0 μM in a dose dependent fashion. The structural modification and its analogues are now in progress.

[PD2-70] [10/19/2001 (Fri) 14:00 - 17:00 / Hall D]

Sesquiterpenoidal compounds from Plants of *Carpesium* genus

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Three novel guaiaolides were isolated from *Carpesium macrocerum*. Their structures determined to be 1*b*H,5*b*H,7*b*H,8*a*H-4*a*,10*a*-dihydroxy-guaia-8,12-olide (I), 1*b*H,5*b*H,7*a*H,8*b*H-4*a*,10*a*-dihydroxy-guaia-8,12-olide (II) and 5*b*H,7*b*H,8*a*H-4*a*,10*a*-dihydroxy-1(2),11(13)-guaia-8,12-olide (III) from NOE and various spectroscopic data. Isolation of the compounds(I, II, III) was performed as follows, The MeOH extract of *Carpesium macrocephalum* was partitioned between H₂O and Hexane. The resulting H₂O layer was extracted with CH₂Cl₂, EtOAc and *n*-BuOH, successively. The CH₂Cl₂ extract was chromatographed twice on silica gel column and RP-HPLC, which afforded the three novel sesquiterpene lactones.

One sesquiterpene lactones, a germacranolide, 2*a*, 5-epoxy-5,10-dihydroxy-6*a*-angeloyloxy-9*b*-

isobutyloxy-germacran-8 α -12-olide was first isolated from *Carpesium codifolium*, which was recently discovered a *Carpesium* plant in Korea. The MeOH extract of *Carpesium codifolium* was partitioned between H₂O and CHCl₃. Six principle sesquiterpene constituents were separated from the chloroform extracts by using silica gel column chromatography and RP-HPLC. The first eluted component in RP-HPLC, which was previously reported in *Carpesium divaricatum*, afforded the germacranolide.

Poster Presentations – Field D3. Oriental Medicine

[PD3-1] [10/19/2001 (Fri) 14:00 – 17:00 / Hall D]

Determination of Sulfites in crude drugs

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This study was performed to investigate the contents of sulfite in crude drug materials. Sulfites were determined for 10 kinds of crude drug materials by optimized Monier-Williams method(106 case – domestic 72, imported 34) and ion chromatographic method(40 case – domestic 27, imported 13). Experimental subjects were purchased at Kyung-Dong market from Feb. to Dec. in 2000.

The results were as follows :

1. Mean recovery of standard soln. was 94.7%(86.5~100.2%) by optimized Monier-Williams method and 101.6%(96.8~107.8%) by IC method and the linealities were 0.9993, 0.9998 respectively.
2. Contents of sulfites ranged 13.1~1684.8ppm (mean 209.3ppm) by optimized Monier-Williams method : domestic samples ranged 22.8~1684.8ppm (mean 180.9ppm) and imported samples ranged 13.1~1320.7ppm (mean 334.0ppm).
3. Sulfites were analyzed in 40 cases by IC method and 28 cases of them were detected 12.0~1860.4ppm (mean 197.4ppm).

[PD3-2] [10/19/2001 (Fri) 14:00 – 17:00 / Hall D]

Lupane-Triterpene Glycosides from Leaves of *Acanthopanax gracilistylus* W.W. Smith

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Acanthopanax gracilistylus is grown widely in the provinces of Hubei, Henan, Sichun, Yunnan, Hwoonan and Guizhou. Woo Ja Pi has been used for the treatment of tonice, rheumatic arthralgia, anti-inflammatory, analgesic etc. Four lupane-triterpene glycoside I-IV were isolated from hot MeOH extract of leaves. They were identified as acankoreoside A(I), acankoreoside C(II), acankoreoside D(III) and acantrifoside A(IV), on the basis of their m.p. IR spectral data, NMR spectral data, positive FAB-mass spectral data and physical propertis. These compound have been already isolated from the leaves of *A. Koreanum*(=*Eleutherococcus gracilistylus* var. *gracilistylus*) and *A.trifoliatus*.

[PD3-3] [10/19/2001 (Fri) 14:00 – 17:00 / Hall D]