the folkloric society of Korea, we investigated the isolation of hydrophilic constituents. Chlorogenic acid (1), 3,4-di-O-caffeoylquinic acid (2), 5-O-[1-butyl]-3,4-di-O-caffeoylquinic acid (3) were isolated by combination of silica gel- and ODS column chromatography. The structure of 3 was determined by 1H-1H-, 1H-13C COSY, HMBC and FAB-MS spectra. Compound 3 has not been isolated before from a natural source.

[PD2-15] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Phytochemical Constituents of Actinidia arguta

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The root of Actinidia arguta was extracted with methanol and the methanol extract was suspended in H2O and successively partitioned with n- Hexane, CH2Cl2, EtOAc and n-BuOH. The repeated column chromatographic separation of the EtOAc extract resulted in the isolation of two flavonoids (compound 2 and 3) and two triterpenes (compound 1 and 4) and CH2Cl2 extract to afford three lignans (compound 5-7). Their structures have been established by spectroscopic methods

[PD2-16] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Antigenotoxic and Antimutagenic Activities of a New Component from the Starfish Asterina pectinifera

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>From the butanol fraction of the starfish Asterina pectinifera Muller et Troschel (Asteriidae), we have isolated a new component, 5α-cholest-7-en-3β-ol. Its antigenotoxic and antimutagenic activities were examined by the SOS chromotest with Escherichia coli PQ37 and by Ames test with Salmonella typhimurium TA1538, respectively. 5α-Cholest-7-en-3β-ol showed potent antigenotoxic activity against the mutagens, both MNNG(N-methyl-N'-nitro-N- nitrosoguanidine) and NQO(4-nitroquinoline N-oxide. For 100% of antigenotoxicity, the concentration of the compound applied against MNNG and NQO were 10μg and 5μg per reaction tube, respectively. Its antimutagenic activity with S. typhimurium TA1538 against the mutagen MNNG was very effective. When its concentrations were varied from 1 μg up to 10μg dose per plate, the inhibition ratio of revertant CFU(colony forming unit) of TA1538 per plate was increased accordingly, from 25.2% to 99.2%. These results suggest that 5 α-cholest-7-en-3β-ol possesses antigenotoxic and antimutagenic activity and might be useful as a chemopreventive agent.

[PD2-17] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Phytochemical investigation of node of the lotus rhizome (Nelumbo nucifera Gaertn.)

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The Node of the lotus rhizome (Nelumbo nucifera, Nymphaeaceae) have been used as a traditional medicine for the remedy of hemorrage, blood stagnancy and thirstiness. To investigate anti-diabetic drug from traditional medicine, the constituents of Nelumbo nucifera (Nymphaeaceae) were studied phytochemically. One alkaloid and three phenolic compounds were isolated from the methanol extract of the rhizome from N. nucifera. The structures of these compounds were identified as 1H-Indole-3-propionamide, (+)-catechin, (-)-epicatechin and (+)-gallocatechin by the analysis of spectroscopic evidences and comparision with the data of authentic samples.

[PD2-18] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Anthocyanins from Black soybean, Glycine max L. cv. Geomjeongkong 1.

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Three anthocyanins were isolated from the acidified ethanol extracts of black soybeans (*Glycine max* L. cv. Geomjeongkong 1) using solid phase extraction and preparative high-performance liquid chromatography. The anthocyanins were characterized using chromatographic and spectroscopic methods as delphinidin 3-glucoside, cyanidin 3-glucoside, and petunidin 3-glucoside.

[PD2-19] [10/20/2000 (Fri) 11:30 - 12:30 / [Hall B]]

Phytochemical constituents from Dendropanax morbifera

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A number of members of the Araliaceae have been utilized in traditional medicine, especially in *Panax* and *Acanthopanax*. As part of our research efforts in Araliaceae family for biological activity and potential medicinal utility, we found that the crude extract of *Dendropanax morbifera* showed considerable antioxidant and cytotoxic activity. In order to find the active compounds from this plant, we undertook the phytochemical studies with the stem part fo *D. morbifera*. The MeOH extract of the stem part of*D. morbifera* was extracted with hexane, ethylacetate, buthanol and water successively. Two polyacetylene compounds (Comp.1. and Comp.2.) were isolated from ethylacetate fraction and one triterpenoid (Comp.3.) from hexane fraction. Additional four lignan compounds (Comp.4 ~ Comp.6) were isolated from ethylacetate and buthanol fraction by repeated silica gel column chromatography and preparative HPLC. Their structures were elucidated by the physicochemical and spectral data such as UV, IR, NMR and MS.

사진 출처:한국자연정보연구원

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

Coumarins Isolated from Angelica gigas Inhibit Acetylcholinesterase: Structure - Activity Relationships

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