[Shoyakugaku Zasshi, 47, 156-164 (1993)] [Lab. of Herbal Garden]

Pharmacognostical Studies of Crataegus Fructus (I) Flavonoids Contents in the Plants of *Crataegus* spp..

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The main flavonoids in the leaves, flowers and fruits of *Crataegus* spp. were quantitatively determined by HPLC, *i. e.* hyperoside(**1**), vitexin-2"-rhamnoside(**2**), vitexin, isoquercitrin(**3**), vtiexin-2"-rhamnoside-4'''-acetyl(**4**). The total amounts of flavonoids in the leaves and flowers were large, and those in the fruits were small. Leaves of *C.monogyna* contained a large total amount of flavonoids and had high **1**, **2** and **4** contents. **4** was absent in the leaves of the other species tested. The fruits of *Crataegus* spp. mainly contaiened **1** and **3**. The medicinal preparations of *Crataegus* extracts were found to have varieties total flavonoid contents and the compositions.

[Shoyakugaku Zasshi, 47, 330-333 (1993)] [Lab. of Herbal Garden]

Studies on Constituents of Plantaginis Herba 4. on Phenylethanoid Glycosides of *Plantago camtschatica.*

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Eight known phenykethanoid glycosides, ciatanoide F, desrhamnosyllacteoside, β-hydroxyacteoside, campneoside I, acteoside, orobanchoside, β-oxoacteoside and isoacteoside, were isolated from the aerial parts of *Plantago camtschatica*. The chemical constituents of the aerial part of the plant were similar to those of *P.depressa*, the original plant of Plantaginis Herba described in Chinese Pharmacopeia. We also studied the chemical structure of orobanchoside and considered that it was to be revised.

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Phenylethanoid Glycosides from *Plantago depressa*

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The five known phenylethanoid glycosides, cistanoide F, β-hydoroxyacteoside, campenoside I, acteoside and orobanchoside, and a new phenylethanoid glycoside, were isolated from the aerial parts of *Plantago depressa*. The structure of β-oxoacteoside was deduced from chemical and spectral evidence to be β-oro-β-(3,4-dihydroxyphenyl)-ethyl-*O*-α-L-rhamnopyranosyl-(1→3)-β-D-(4-*O*-caffeonyl)-glucopyranoside.