A031 Effect of a new iridoid, patridoid I, isolated from *Patrinia saniculaefolia*, on the arachidonic acid cascade related enzymes

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Patrinia scabiosaefolia Hemsly (*Valerianaceae*) is an endemic in Korea and the root of genus *Patrinia* has been used in Korean traditional medicine for the treatment of various diseases including inflammation and edema, appendicitis and abscesses. For an attempt to develop of anti-inflammatory compounds from from *P. saniculae - folia*, we isolated a new type of cyclooxygenase-2 (COX-2) and 5-lipoxygenase (5-LO) dual inhibitor, patridoid I. From the MeOH extract of P. saniculaefolia, bioassay guided fractionation by chromatographic separation of the extract led to the isolation of patridoid I. Bone marrow derived mast cells (BMMC) were obtained from the Balb/cj mice which were cultured for up to 4 weeks in the presence of 50% WEHI-3 cells conditioned medium. To examine the effects of patrioid I on the arachidonic acid cascade related enzymes, we used several *in vitro* assay systems. As results, patridoid I did not inhibit secretory type IIA and cytosolic phospholipase A_2 activity. Interestingly, this compound inhibited both COX-2 dependent delayed PGD_2 production (IC_{50}=40 μM) and 5-LO dependent LTC_4 production by BMMC in the presence of c-*Kit* ligand, IL-10 and LPS (IC_{50}=40 μM). But, this compound did not affect platelet activating factor (PAF) acetyltransferase activity. When patrioid I (1R,**3R**,5R,7R) changed to its isomer patrioid II (1R,**3S**,5R,7R), patridoid II inhibited neither COX-2 nor 5-LO activity. Our results suggest that patridoid I could become a leading compound for developing a novel type of anti-inflammatory, anti-asthmatic drugs that target COX-2 as well as 5-LO.

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A032 Antiulcerogenic effect of *Rumex patientia* L.

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The genus *Rumex* (Polygonaceae) is represented by 25 species in the flora of Turkey (1). *Rumex patientia* L. has been investigated both from a phytochemical (2-4) and biological viewpoint; extracts have been screened for anti-inflammatory (5-6) analgesic, antipyretic (7) and gastroprotective (8) activities.

Formation of free radicals play roles on ethanol induced GIS damages (9). COX-2 selective inhibitors possessed antioxidant effect (10). In our previous study, we confirmed antioxidant effect of *Rumex patientia* (11)

The aim of this study was to investigate the effect of D-1 (aqueous extract of *Rumex patientia*), on indomethacin and ethanol induced ulcer models in rats in comparison with synthetic compounds, nimesulide, rofecoxib and celecoxib which were selective inhibitors of COX-2 (cyclooxygenase).

Adult male wistar albino rats, weighing between 185-200 g were used.

In indomethacin induced ulcers, the ulcer area of D-1 administered rats is 3 mm^2 smaller than control group. The effect of D-1 and COX-2 selective inhibitors were ranged as follows: nimesulide (100 mg/kg) > rofecoxib (25 mg/kg) > D-1 (150 mg/kg) > celecoxib (100 mg/kg).

D-1 and COX–2 selective inhibitors are effective as well as famotidine on ethanol induced ulcers. The ulcer area of D-1 is 84.7 mm^2 smaller than control group. The efficacy of the drugs are nimesulide (100 mg/kg) > rofecoxib (25 mg/kg) > famotidine (40 mg/kg) > D-1 (150 mg/kg) > celecoxib (100 mg/kg), respectively.

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