

diseases such as peptic ulcer and oral diseases such as periodontitis. Bamboo salt is a processed salt invented by a Korean guru in oriental medicine, IL-Hoon Kim, who modified the Korean traditional bamboo salt recipe extensively. At present, it is widely accepted that garlic and bamboo-salt are useful for the treatment of gastric hyperacidity, gastritis, peptic ulcer and gastric cancer as an alternative medicine in Korea. To understand the protective mechanism of the garlic-bamboo salt mixture, the gastritis was induced in rats with alcohol-salicylate and the inhibitory effect of type conversion on xanthine oxidase(XO) and the activities of the free radical scavenging enzymes including glutathione peroxidase(GPx), glutathione reductase(GR) and superoxide dismutase(SOD), with the changes of total glutathione(GSH) contents were examined. In this study, we found that the garlic-bamboo salt mixture reduce the severity of hemorrhagic lesion in gastric mucosa in the rats. In addition, the increment of type conversion from xanthine dehydrogenase(XD) to xanthine oxidase(XO) and the change of the XO activity in gastric tissue was significantly reduced and the activities of GPx, GR, SOD were significantly increased and the total content of GSH was recovered. From these results, we concluded that the protective effect of the garlic-bamboo salt mixture is its ability to decrease XO type conversion and to increase the activities of the free radical scavenging enzymes(GPx, GR, SOD) and to recover the level of GSH in the rats with the alcohol-salicylate induced gastritis.

[PA1-24] [10/19/2000 (Thr) 10:00 - 11:00 / [Hall B]]

Characterization of anti-angiogenic Activity from *Holotrichia diompharia*

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Holotrichia diompharia (*Melolonthidae*) has been used as a folk medicine due to its wide action. It was previously found that the ethanolic extract of *H. diompharia*(EEH) showed anti-angiogenic activity in chorioallantoic membrane(CAM) assay. In order to obtain the most active fraction, EEH was extracted in turn with n-hexane, ethyl acetate, and butanol and each fraction was evaluated on the capacity to inhibit angiogenesis *in vivo* and *in vitro*. The results revealed that BuOH and aqueous fractions had significant anti-angiogenic activity in chick embryo CAM assay. Also, these fractions inhibited basic fibroblast growth factor(bFGF)-induced proliferation of calf pulmonary artery endothelial(CPAE) cells, which is the stage of the early angiogenesis. Thus, their anti-angiogenic activity was estimated to be due to inhibition of the proliferation of vascular endothelial cell.

[PA1-25] [10/19/2000 (Thr) 10:00 - 11:00 / [Hall B]]

Anti-inflammatory Effects of *Kalopanax pictus* Bark and Its Fractions

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The bark of *Kalopanax pictus* Nakai (*Araliaceae*) has been using for anti-inflammation in folklore of Korea. It is observed that the 70% methanol extract of the plant bark showed inhibition of vascular permeability in mice (1-3 g/kg, p.o.), of leucocyte emigration in CMC-pouch (0.15-0.3 g/rat, s.c.) and anti-writhing action (3 g/kg, p.o.) in mice, but did not show depression of the edema induced by carrageenin in rats (0.25-3 g/kg, p.o.). It also did not show analgesic effect in Randall-Selitto method in rats. The methanol extract was then partitioned with n-hexane, CHCl₃, EtOAc and n-BuOH to give each soluble fraction and finally water soluble fraction. Among the fractions, the inhibitory effect on vascular permeability in mice was shown in EtOAc soluble