

effects on the alcohol induced liver damage (6g/kg, oral administration) and were treated (0.001, 0.01 and 0.1mg/ml, final concentration) to human periodontal ligament cells and MG-63 (osteoblastoma cell line) to check the effects on cell growth and bone forming by proliferation, ALP activity and nodule calcification tests. To find out skin whitening effect tyrosinase activity suppression test was performed.

As a result, biochemical parameters (GOT, GPT and ALP) showed that butanol fraction of Hwang Chil had protective effects on the liver alcohol induced damage. Chloroform, ethylacetate and water fraction of Hwang Chil increased human periodontal ligament cell proliferation (more than three times on the day 14), ALP and nodule calcification (twice the number on the day 10). Water extract of Hwang Chil also increased ALP activity and nodule calcification of MG-63 at day 10. The effect of skin whitening was far better than kojic acid which is well known whitening cosmetic.

It was concluded that the unique natural resource Hwang Chil (*Dendropanax morbifera* Lev.) which is exclusively produced in Korea, is found to be a great product effective in protecting the liver from alcohol, restoring hard tissues and whitening skins by suppressing tyrosinase activities which cause melanin. Therefore, Hwang Chil is considered to be a quality herb just like ginseng with full of potentials to be developed into various products including health functional food, functional cosmetic products and drugs that has competitiveness in overseas market.

[PA3-8] [04/17/2003 (Thr) 14:00 – 17:00 / Hall P]

Induction of Quinone Reductase by Obtusafuran from *Dalbergiae* Lignum

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NAD(P)H:quinone oxidoreductase (quinone reductase: QR; EC1.6.99.2), a cytosolic FAD-containing flavoprotein, form one of the important component of the phase II drug-metabolizing enzyme systems. It is found in all mammalian species tested and is expressed in many organs including the liver. QR catalyses two-electron reduction of quinones to hydroquinones thereby suppresses the formation of superoxide anion radical. in addition,quinone reductase is induced coordinately with other electrophile-processing Phase II enzymes by a variety of compounds. We initially screened several chinese medicinall drugs for QR inducing activity. The MeOH extract of *Dalbergiae* Lignum showed a potent QR inducing activity in a dose-dependent manner without any significant cytotoxicity. Using activity-guided isolation we separated Obtusafuran QR active components of the extract. The QR inducing property of Obtusafuran suggest the possibility as a competitive candidate for the chemoprevent agent.

[PA3-9] [04/17/2003 (Thr) 14:00 – 17:00 / Hall P]

Anti-platelet Mechanism of Epigallocatechin Gallate

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We have previously reported that green tea catechins(GTC) displayed anti-thrombotic activity, and that this might be due to anti-platelet rather than anti-coagulation effects. In the present