

that KHU-2 showed the excellent hypoglycemic activity and its effect was in no way inferior to KHU-1.

[PA1-56] [10/18/2001 (Thr) 14:00 - 17:00 / Hall D]

Hair-Growth Effect and Single dose Oral Toxicity Test of Illite Powder

Park Hyung Sup Lee Choong Jae Kim Bak-Kwang Yim Dong Sool, Cheong Jae Hoon

Department of Pharmacy, Sahmyook University, Seoul 139-742, Korea *College of Pharmacy, Seoul National University, Seoul 152-742, Korea

The hair-growth effect of Illite was suggested by some people who were using Illite as a beautifying material. We investigated the hair-growth effect of Illite powder. The hair-growth effects were investigated by two methods, the activity of hair-growth after shaving the hairs on the black mouse (C57BL/6) and the recovery activity of hair-growth after hair-loss induced by cyclophosphamide treatment. Suspension of Illite powder was administered to the back of the black mouse by method of skin paste. Illite promote significantly the hair growth of mouse in both conditions of shaving and hair-loss. And then we investigated the toxicity which may be induced by Illite when it was administrated orally as a single dose. we could not find out any significant toxicity induced by single dose oral administration of it.

[PA1-57] [10/18/2001 (Thr) 14:00 - 17:00 / Hall D]

Increase of Susceptibility against Stress in *Helicobacter pylori* Infection and Protective Effect of Mucogen

Oh TaeYoung⁰, Koh SangBum, Lee KiMyung**, Ahn ByoungOk, Kim YoungBae**, Lee EunBang*, Kim WonBae, Hahm KiBaik**

Research Laboratories, Dong-A Pharm. Co. Ltd., Korea, *Natural Product Institute, Seoul National University, Korea, **Department of Gastroenterology and Pathology, Ajou University School of Medicine, Korea

It is known that stress is important determining factor in *Helicobacter pylori*-infectious stomach-related disease. We surveyed degree of gastropathy and change of cytokine, chemokine, oxidative damage and inflammation-related transcription factor in *Helicobacter pylori*-infection experimentally animal models. We used Sprague-Dawley rat and Mongolian gerbil, and infected *Helicobacter pylori* (1×10^9 cfu/0.1 ml) with oral administration. After 24 weeks, we loaded stress to place inside cold water with each animal inserted stress cage. 30, 120 or 480 minutes later, animals were sacrificed and measured gross observation and histopathology. Compared *Helicobacter pylori* infection group to non-infection group, infection group significantly increased gastropathy in gross and microscopic observation score after stress-loaded 30, 120 or 480 minutes later, augmented IL-1 β and TNF- α at 30 minutes, and IFN- γ at 120 minutes, significantly. To compared both infection and non-infection group, Mucogen treated group significantly reduced all cytokine and chemokine levels at each times and significantly increased HSP 60 and HSP 70 at each 120 minutes and 60 minutes. These results suggest that stress is one of the important factor in *Helicobacter pylori* infection-related gastropathy and Mucogen has significant therapeutic potential in the treatment of *Helicobacter pylori* infection added stress induced gastropathy.

[PA1-58] [10/18/2001 (Thr) 14:00 - 17:00 / Hall D]

The effect of Liriopsis Tuber extracts on exercise performance and Blood fatigue elements in rats.

rhee in ja⁰, choi woneil, kim unjung, yang junho

The purpose of this study is to investigate the effect of the administration of Liriope tuber extract, which contains much oligosaccharide and is used as a body fluid supplement in traditional medicine, on exercise ability in swim-trained rats by evaluating maximum exercise time, blood fatigue elements (lactate, ammonia, inorganic phosphate, pH). The exercise regimen was designed as swimming loaded with 10g weight to the base of the rat's tail. Experimental groups were trained swimming on a schedule for 4 weeks and divided into 6 groups: (water (control), 5% water fraction (A), 10% water fraction (B), 5% crude extract (C), 10% crude extract (D), commercial beverage (E)). In a 5–8 week study, we investigated the effect of only one administration (10ml/body weight (kg) before swimming) and in a 9–10 week study, we investigated the effect of administration for two weeks.

Obtained results were as follows:

1. In only one administration study, A group and C group significantly improved exercise performance and reduced blood fatigue elements, but B and D showed no significant differences.
2. In two weeks administration study, A, B, C, and D groups all significantly improved exercise performance and reduced blood fatigue elements.

[PA1-59] [10/18/2001 (Thu) 14:00 – 17:00 / Hall D]

Pharmacological Action of *Cordyceps scarabaeicola*

Kim SunHyung⁰, Won SoYoung, Rho SeungA, Kim HyunJu, Park Eun-Hee

College of Pharmacy, Sookmyung Women's University

Dongchunghacho, one of folk medicines, is traditionally believed to be effective against various diseases. It includes many different genera such as *Cordyceps*, *Paecilomyces*, *Torrubiella* and *Podonectria*. *Cordyceps scarabaeicola* is one of well-known species. The 70% ethanolic extract was prepared from two different sources of *C. scarabaeicola*, fruiting bodies devoid of host materials (CS) and liquid medium-cultured cells (SC). Anti-angiogenic activity was determined by the chick embryo chorioallantoic membrane assay. Both CS and SC were found to contain strong anti-angiogenic activities. The extracts at the dose of 10 µg showed anti-angiogenic activity comparable to that of retinoic acid (dose, 1 µg), used as a control agent. Anti-angiogenic activities of CS and SC appeared to be dose-dependent. No significant differences were found between the effects of CS and SC. *Cordycepin*, an inhibitor of RNA synthesis identified in some *Dongchunghacho* species, showed anti-angiogenic activity. These results might suggest the plausible anti-tumor activity of *C. scarabaeicola*. Other pharmacological actions of *C. scarabaeicola* were examined.

[PA1-60] [10/18/2001 (Thu) 14:00 – 17:00 / Hall D]

The pharmacological profile of JOINS (SKI 306X) II : the potentiality as a curative therapeutics of rheumatoid arthritis

Rhee Hae-In⁰, Ryu Keun Ho, Jung Kiwon, Yoo Hunseung, Shin Hee Jae, Han Chang-Kyun, Cho Yong-Baik, Kwak Wie-Jong

Life Science Research Center, SK Chemicals

Rheumatoid arthritis is a chronic multisystemic disease of unknown etiology and its characteristic feature is persistent inflammatory synovitis. Since the etiology and pathogenesis are not clear, the therapeutic approaches of these days are not curative, but just relieving the signs and symptoms of the disease. JOINS is a purified extract from a mixture of three oriental herbs, *Clematis mandshurica*, *Trichosanthes kirilowii*, and *Prunella vulgaris*, which have been widely used for the treatment of inflammatory diseases such as lymphadenitis and arthritis in Far East Asia. JOINS showed excellent analgesic and anti-