In this issue of the journal, recommended articles are selected from the Korean Journal of Acupuncture (ISSN: 1229-7933) published in Korean and from the Journal of Pharmacopuncture (ISSN: 2093-6966) published in English.


Pinus Densiflora Gnarl Extract for Pharmacopuncture Inhibits Inflammatory Responses through Heme Oxygenase-1 Induction in Lipopolysaccharide-stimulated RAW264.7 Macrophages

Kang-Pa Lee, Jin-Young Moon

Abstract

Objectives: The gnarl of Pinus densiflora, called Songjeol in Korea, has been used as a medicinal herb for the treatment of inflammatory-related diseases such as arthralgia, myalgia and bruises. However, its molecular actions and mechanisms have not been clearly investigated. The aim of this study was to clarify the anti-inflammatory activity of Pinus densiflora gnarl pharmacopuncture (PDGP) in lipopolysaccharide (LPS)-stimulated RAW264.7 cells.

Methods: Cytotoxicity was assessed by using a XTT assay. The amount of nitric oxide (NO) production was determined by using a nitrite assay. The mRNA expressions of interleukin-1b (IL-1b), interleukin-6 (IL-6), cyclooxygenase-2 (COX-2) and heme oxygenase-1 (HO-1) were analyzed by using reverse transcriptase PCR (RT-PCR). Reactive oxidative species (ROS) generation was measured using fluorescence microscopy. In addition, inducible nitric oxide synthase (iNOS) and redox factor-1 (Ref-1) protein expressions were detected by using Western blotting.

Results: PDGP inhibited NO production and ROS generation in LPS-stimulated RAW264.7 cells. At the mRNA level, PDGP suppressed IL-1b, IL-6 and COX-2 expression. On the other hand, PDGP induced HO-1 mRNA expression. Furthermore, PDGP suppressed iNOS and Ref-1 protein expression.

Conclusions: These results suggest that PDGP can act as a suppressor agent for NO and iNOS through induction of HO-1 and can play a useful role in blocking inflammatory responses.

Key Words: pinus densiflora gnarl; pharmacopuncture; nitric oxide; heme oxygenase-1

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Understanding of Meridian in “Woe Gwa Sim Beop Yo Gyeol” of “The Golden Mirror of Medicine” - Focus on a Comparative Study with “Ja Gu Sim Beop Yo Gyeol”

Yang-Seok Lee, Sun-Oh Kwon, Seung-Tae Kim, Hi-Joon Park, Dae-Hyun Hahm, Hye-Jung Lee

Abstract

Objectives: The aim of this study was to understand the meaning of meridian in Woegwasimbeopyogyeol (WGS) of The Golden Mirror of Medicine (GMM).

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Methods: We compared the meaning of meridian in WGS with that in Jagusimbeopyogyeol (JGS) of GMM.

Results: Objectivity and clearness are obtained by inserting the meridian and collateral diagram and the partially expanded diagram in WGS and JGS. The meridian song (a quatrain with seven) in WGS is placed at the beginning of the chapter, indicating its importance. Kihyeoldaso of 12 meridians is detailed in WGS so as to reduce the harmful effect when doctors diagnose, treat and prognose, and understanding the meaning of meridian is important when doctors treat carbunculosis. The symptoms of a disease are classified by parts and are shown in a diagram, which can play an important role in diagnosis.

Conclusions: WGS follows the meanings of meridian and complementary structure in JGS.

Key Words: The golden mirror of medicine; Uijongeumgam; Woegwasimbeopyogyeol, Jagusimbeopyogyeol

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Traditional Korean Medicine Doctors’ Awareness and Utilization of Case Reports

Seung-Min Baek, Jeong-Hwan Park, Sang-Hun Lee, Sul-Gi Kim, Jeong-Hwa Lee, Bo-Young Kim, Sun-Mi Choi

Abstract

Objectives: The purpose of this study is to assess traditional Korean medicine (TKM) doctors’ awareness and utilization of case reports based on the opinion that careful observation of cases sometimes provides important information on clinical trials, especially in the field of traditional medicine research.

Methods: A questionnaire study was conducted among TKM doctors who participated in the annual continuous maintenance education (CME) held in five regions of the Republic of Korea.

Results: Almost 60% of the respondents had read case reports published in medical journals, and 67% had openly shared their clinical cases with their colleagues. Of the respondents, 18.6% had been educated on reporting cases, and only 16% had the experience of reporting cases on their own. However, 32.6% of the respondents had intentions to report cases in the future. The results showed significant differences between general physicians who hold a license but have no hospital training on case reports and board-certified TKM doctors who have experienced such training.

Conclusions: A majority of TKM doctors have read case reports but have little experience with proper training. This research found that awareness of case reports is rising in hospital training. Thus, the objective of case report education for TKM doctors who undergo hospital training should be to encourage them to write more whereas for doctors who do not experience hospital training, the objective should be to exposing them more to case reports to heighten their awareness.

Key Words: case reports; traditional Korean medicine doctors; awareness; utilization

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Testing of the Safety and the Effectiveness of Using Samjeong Pharmacopuncture Solution as Eye drops

Hyung-Sik Seo, Dong-Jin Lee

Abstract

Objectives: This experimental study was designed to investigate the safety and the effectiveness of Samjeong pharmacopuncture solution (SPS) manufactured by using a low-temperature extract process.

Methods: To identify the safety and the effectiveness of using SPS as eye drops, we performed applied eye irritation tests on rabbits and antibacterial tests for Staphylococcus aureus, Staphylococcus epidermidis, Pseudomonas aeruginosa, Aspergillus niger, Fusarium oxysporum, and Candida albicans. The eye irritation test was performed according to the toxicity testing regulation of the Korea Food & Drug Administration (2009. 8. 24, KFDA 2009-116). After SPS had been applied on the left eye of the rabbits, eye irritation in the cornea, iris and conjunctiva was observed on the 1st, 2nd, 3rd, 4th & 7th day. After SPS had been dropped on bacterial species that cause keratitis, the minimum inhibition concentration and the size of the inhibition zone were measured. The anti-bacterial potency was also measured by taking the size of inhibition zone.

Results: After SPS had been administered on the left eye of the rabbits, none of nine rabbits were found to show abnormal signs or weight changes. After SPS had been administered on the left eye of the rabbits, no eye irritation in the cornea, iris and conjunctiva was observed on the 1st, 2nd, 3rd, 4th & 7th day. No specific response was detected in MIC for bacterial species Staphylococcus aureus, Staphylococcus epidermidis, Pseudomonas aeruginosa, Aspergillus niger, Fusarium oxysporum, and Candida albicans after SPS had been applied.