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## RECOMMENDED ARTICLES

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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.

(1) Korean Journal of Acupuncture, Vol.29, No.1, pp.37~46, 2012

### 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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(2) Korean Journal of Acupuncture, Vol.29, No.1, pp.47~55, 2012

### 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 Woegwasimbeopyogyol (WGS) of The Golden Mirror of Medicine (GMM).