

Effects of ethanol extract of *Ligularia fischeri* on Freund's complete adjuvant-induced model of chronic arthritis in ICR mice

Eun-Mi Choi*, Sung-Ja Koo

Department of Food & Nutrition, Kyung-Hee University, Seoul Korea

Ligularia fischeri has been used as wild vegetables in Korea. This wild vegetable possesses antiphlogistics, stomachic, analgesic, antimutagenic effects. We investigated the effect of *Ligularia fischeri* ethanol extract on Freund's complete adjuvant (FCA)-induced arthritis. Oral administration of *Ligularia fischeri* extract at doses of 100 and 200 mg/kg once a day for 21 days significantly reduced hindpaw swelling and serum production of inflammatory cytokines (tumor necrosis factor- α , interleukin-1, and interleukin-6), triglyceride, and low density lipoprotein-cholesterol, compared with those of control group. The activities of superoxide dismutase and glutathione reductase were increased in the spleen of *Ligularia fischeri* extract-treated arthritic mouse. Levels of protein carbonyl (PCO), advanced oxidation protein products, and advanced glycation end products (AGE) in lung and heart were decreased by *Ligularia fischeri* administration. In brain of *Ligularia fischeri*-treated mice, levels of PCO and AGE were reduced. These results suggest that *Ligularia fischeri* might be beneficial for the treatment of chronic inflammatory disorders.

* 담당자 : 최은미

* Tel : 02-961-0709

* 휴대전화 : 018-246-8023

* Fax : 02-968-0260

* E-mail : cheunmi@hanmail.net