

Anti-Inflammatory and Anti-atopy Cosmeceutical Effect of Korean Chestnut Inner Shells

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In general, atopic dermatitis is chronic inflammatory skin disease of high incidence infants increasing worldwide [1,2]. 70% ethanol (Cle) of Korean chestnut inner shell extract had shown antioxidant and anti-inflammatory effects. Also n-butyl alcohol (CleB) by solvent fraction had antioxidants and anti-inflammatory effects. CleB3 fraction was separated by Dion HP-20 column chromatography and it reduced ERK, p38, TNF- α and COX-2 protein expression in PMA/A231487-induced inflammatory cytokines on HMC-1 human mast cell test. Scratching behavioral in vivo test, ICR mice were induced itching with compound 48/80 and histamine by hypodermic injection near ears. When CleB3 (100mg/kg) was supplied on oral administration, scratching behaviors were decreased 50%. Terfenadine was used as positive control. Anti-atopy in vivo test, DNCB-induced dermatitis caused on shaved BALB/c mice. When CleB3 (100mg/kg) was also supplied by oral administration during 2 weeks, IgE in serum was decreased a half than its positive control. CleB3 is unique as a kind of cosmeceutical material against atopic dermatitis.