

〈原 著〉

ホモナタロインおよびアロエシンの紫外線によって誘導 される免疫抑制予防効果 ——接触過敏反応を指標とした検討——

福安 健司*, 平本 恵一*, 田 中 浩*
広 瀬 統*, 堅田 友則*, 小西 宏明*

The Preventive Effects of Homonataloin and Aloesin on the UV-B Induced Immune Suppression ——Investigations using contact hypersensitivity response——

Kenshi FUKUYASU,* Keiichi HIRAMOTO,* Hiroshi TANAKA*
Osamu HIROSE,* Tomonori KATADA,* Hiroaki KONISHI*

Abstract

We reported that *Aloe andongensis* extract (*A. andongensis* ex.) prevented the suppression of contact hypersensitivity (CHS) response in mice by UV-B radiation. In this study, we investigated the ability of homonataloin and aloesin, which are constituents of *A. andongensis* ex., to prevent the UV-B induced suppression of CHS response. They prevented the suppression of CHS response induced by UV-B radiation. To explore the prevention mechanism of immune suppression by *A. andongensis* ex., homonataloin, and aloesin, we used murine keratinocyte cell line (PAM212). Intravenous injection of supernatants derived from UV-B irradiated PAM212 cells significantly suppressed CHS response. On the other hand, supernatants derived from UV-B irradiated PAM212 cells which were added *A. andongensis* ex. or aloesin after UV-B radiation did not inhibit CHS response. In conclusion, we consider that application of *A. andongensis* ex., homonataloin and aloesin depress the release of UV-B mediated CHS inhibitor from UV-B irradiated keratinocyte, and prevent UV-B induced immune suppression in mice.

Key words: ultraviolet rays, immune suppression, contact hypersensitivity, homonataloin, aloesin.