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Poster Sessions

Pharmacological evaluation in atopic dermatitis models induced by mite antigen in mice

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Atopic dermatitis is a chronic skin disease that causes various symptoms such as itchy eczema, dryness, and redness, with repeated exacerbations and remissions. In order to examine the effect of tacrolimus on the symptoms of atopic dermatitis, we evaluated skin functions, scratching behavior, and inflammation using atopic dermatitis models of hairless mice and NC/Nga mice.

Female Hos: HR-1 hairless mice were fed a special diet (HR-AD) and applied the mite antigen ointment to induce dermatitis symptoms. Female NC/Nga mice were only applied the mite antigen ointment. Before and after induction, skin functions (skin moisture content, transepidermal water loss, viscoelasticity), scratching behavior, skin inflammation scoring were evaluated. After application of tacrolimus, serum IgE concentration, cytokine in the auricle, and histopathological findings were evaluated.

As a result, a decrease in skin functions, an increase in scratching behavior, and an exacerbation of inflammatory symptoms were observed in both models. Although application of tacrolimus improved skin function and inflammation, the hairless mouse model tended to show scratching behavior. Both evaluation methods were considered useful to evaluate the symptoms of atopic dermatitis.