

## Extract from peel of *Citrus natsudaoidai* alleviates experimental chronic allergic dermatitis in mice

Noriyuki Nakayama, Katsunori Yamaura, Maki Shimada, Koichi Ueno

Department of Geriatric Pharmacology and Therapeutics, Graduate School of Pharmaceutical Sciences, Chiba University

### ABSTRACT

Background *Citrus natsudaoidai* (natsumikan) is a typical citrus fruit containing several antioxidative nutrients which are found in higher concentration in the peel than in the pulp of the fruit. In this study, we examined whether extract from immature natsumikan peel prevents development of chronic allergic dermatitis in mice. Materials and Methods Chronic allergic dermatitis was induced by repeated application of 2, 4, 6-trinitro-1-chlorobenzene in BALB/c mice and natsumikan was administrated orally for 30 days. Ear swelling and dermatitis score were measured after each challenge. The level of derivative-reactive oxygen metabolites (d-ROM) in serum was measured on day 30. Results Treatment of natsumikan significantly attenuated the increase in ear swelling and improved dermatitis scores. In addition, increases in serum d-ROM were attenuated by a treatment of natsumikan. Although the routine treatment with dexamethasone resulted in a clear and significant reduction in body weight, natsumikan treatment did not have such effects. Conclusion Immature natsumikan peel is beneficial for the treatment of chronic allergic dermatitis.

### KEYWORDS

2, 4, 6-trinitro-1-chlorobenzene . *Citrus natsudaoidai* . experimental model . oxidative stress

### REFERENCES

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