



ATOPIC ECZEMA/DERMATITIS

## MICRONEEDLE ATOPY PATCH TEST IN THE DIAGNOSIS OF ATOPIC DERMATITIS

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**Introduction:** Atopic dermatitis (AD) is a disease well-known to be associated with sensitization to housedust mite, and atopy patch test has been used evaluate the elicitation of atopic skin reactions. Microneedle (MN) patches allow the increased penetration of allergens with constant and controlled depth and amount.

**Objectives:** To evaluate the efficacy of the MN patch test in the diagnosis of sensitization to housedust mite in AD by comparing Dermatophagoides farinae(D. farinae)-loaded MN patch with Finn chamber patch test among patients with AD, allergic rhinitis (AR) and normal subjects. AD and AR patients sensitized to DF were included.

**Results:** Through repetitive standardization processes, application of the patches for 24 hours was found to be the most suitable for an adequate patch response. AD patients had significantly higher positive patch reactions than AR patients and normal subjects, despite the increased total IgE and DF-specific IgE in both AD and AR patients. The positive rates of MN patches were superior to that of Finn chambers. No serious complications occurred.

**Conclusion:** Microneedle patch may be a useful tool for atopy patch test confirming the elicitation of skin reactions through epicutaneous application of housedust mite in AD. The positivity rates of the atopy patch test of MN patches were higher than that of Finn chamber patches, in which microneedle patch can be suggested as a more useful method for atopy patch test.

