ABSTRACT BOOK ABSTRACTS



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ATOPIC ECZEMA/DERMATITIS

IMMUNOLOGICAL CHANGES IN ATOPIC DERMATITIS SKIN AFTER ALLERGEN SPECIFIC IMMUNOTHERAPY

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Introduction: In atopic dermatitis (AD) barrier and immunological abnormalities create an ideal environment favoring allergic sensitization. Allergen specific immunotherapy (AIT) is the only causative treatment by modifying the immunological response and the pathogenesis of certain atopic diseases. The effect of AIT in AD is still controversial and there is no data whether it can change skin sensitization.

Objectives: We aimed to investigate the skin of AD patients before and after immunotherapy by determining immunological changes after 6 months sublingual immunotherapy (SLIT) treatment.

Materials and Methods: 10 mild-to-moderate AD patients with rhinitis were selected into the study who were only mono-sensitized to house dust mite. All patients received local therapy for AD, and 5 patients were also treated with SLIT. At the start of the study and in 6 months clinical, barrier, laboratory and histological parameters were evaluated. Biopsies were taken from atopy patch tests (APT) at baseline (n=7), in 6 months of AIT (n=4), besides biopsies from chronic lesional AD skin (n=6), chronic non-lesional AD skin (n=6), and healthy dry skin (n=6) were also harvested. Immunohistochemical (IHC) stainings of the skin samples were made. Measurements of filaggrin, thymus stromal lymphopoietin, CD4, interferongamma, interleukin (IL)-10, IL-13, IL-17, IL-22, FoxP3, CD11c, CD83, CCL17, IgE expressions in skin were evaluated and compared.

Results: After 6 months APTs became negative of each tested patients received AIT (Treated group), in contrast to patients who received only local therapy (Control group) where APT remained positive in all occasions. Clinical parameters reduced significantly in the Treated group compared to the Control group. With IHC the post-AIT negative APTs showed similar expression levels as non-lesional AD skin.

Conclusions: Skin sensitization could be the first step in the development of allergic rhinitis in AD. Negative APT reaction after AIT could indicate the modification of allergen sensitization via skin.





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