



ATOPIC ECZEMA/DERMATITIS

## DIVERSITY OF ATOPIC ECZEMA:IMPACT ON MANAGEMENT

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Atopic dermatitis (AD) is a chronic relapsing, severely pruritus, eczematous skin disease. Symptoms of AD may appear in as early as infancy and about 30-50% of the patients markedly improves or clears before or during adolescence. The persistence of AD until adulthood is increasing, reaching up to 60%, and shows a more chronic and recurrent course, causing a significant social burden. The clinical features of AD are diverse, and this heterogeneity may be due to the multifactorial pathogenesis of the disease, in which defects of the skin barrier, environmental factors, and immunological dysregulation are involved. Due to such diverse and complicated mechanisms of the pathogenesis, the clinical features of the patients with AD may differ even within the same age group. This retrospective study analyzed the questionnaires, medical charts, and lab-oratory examination results of 5,000 patients diagnosed with AD at a single tertiary hospital in Korea. The extrinsic type was main. Adult patients were found to have higher severity than the other age groups. The anatomical involvements were different among the age groups, with more involve-ments of the head and neck in adults. The most common feature was the flexural eczematous type, and other morphological variants were also observed, with the most common type of the morphological variants being nummular eczema type. The proportion of the patients with allergic comorbidities was 34.4% and the most common disease was allergic rhinitis. About 30% of the patients had a family history of atopic diseases, with allergic rhinitis also being the most common, followed by atopic dermatitis and allergic conjunctivitis. The two types of house dust mite were found to be the most commonly sensitized allergens in the patients. Out of the patients who visited our AD clinic, 60.9% of patients were prescribed with topical steroids, 56.7% with topical calcineurin inhibitors, and 25.8% were prescribed with oral steroids for only acute exacerbations. In addition, low dose cyclosporine was commonly prescribed, with azathioprine and naltrexone also used in older patients with intractable pruritus. At our institution, allergen specific immunotherapy, specifically using house dust mite, has been tried on recurrent, severe patients. Satisfactory results were observed, with 45% of the patients reaching remission after a mean duration of 3 years. IL-4 and IL-13 were found to do central role in inducing of atopic diseases with Th2 polarization. These findings led to the development of the new targeted therapies to treat AD. Dupilumab, a fully humanized monoclonal antibody targeting the IL-4 receptor  $\alpha$ , which blocks both the IL-4 and IL-13 pathway, is the first antibody-based treatment for AD. Dupilumab has shown promising clinical response in phase III studies in moderate to severe AD. AD that





progresses until and adult-onset AD have been steadily increasing, with more chronic and recurrent courses. Considering the diverse clinical features, the pathogenesis of AD and its related biomarkers need to be further elucidated in order to seek treatments that are more effective and individualized.

