

QoL of Patients with Atopic Dermatitis by Age

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Introduction

Atopic dermatitis (AD) is a multifactorial and complex disease, characterized by an impaired skin barrier function and abnormal immune response. Itch and recurrent infection are major drivers of the poor quality of life of affected patients. Patients with AD often have atopy, including asthma, allergic rhinitis, and environmental and food allergies. The clinical manifestations of AD tend to vary with age. Three groups of AD patients have been well-established based on appearance and localization of eczematous lesions at different ages: infantile-type, childhood-type, and adolescent and adult-type. In infants (infantile-type), AD typically presents as acute eczematous crusting plaques on the face and scales on the scalp. Childhood-type AD is characterized by acute and chronic lesions often involving the flexural aspects of limbs and around the mouth, nose, and eyes, while adult-type AD tends to present with diffuse lichenified plaques at the flexural surfaces, head, and neck. Elderly-type AD has recently been considered a fourth separate group presenting more commonly with the reverse sign of lichenified eczema at the antecubital and popliteal fossae than with lesions localized to the creases of the folds, as is typical of adult-type AD. Based on data from the Global Burden of Disease 2010 Study, investigators ranked conditions in terms of their years lived with disability (YLD) in the United States.⁹ YLD is calculated by multiplying the prevalence by "disability weights," which represent the overall health loss associated with a specific disease. In that study, eczema had the 25th highest impact in terms of YLD among all diseases studied.⁹ Furthermore, asthma, which is commonly associated with atopic dermatitis, had the 10th highest YLD.⁹ In a separate publication from the same study, eczema was first among all skin conditions worldwide with regard to YLD and disability-adjusted life years. In this paper, we describe the different clinical manifestations of atopic dermatitis according to these age groups and their impact on quality of life focused on adult and elderly groups.

QoL of Adult and Ederly patients with atopic dermatitis

Laurent Eckert et al, analyzed the Impact of atopic dermatitis on health-related quality of life and productivity in adults in the United States has using the National Health and Wellness Survey by Significantly reduced HRQoL on both mental and physical domains was reported by subjects with AD relative to matched non-AD controls. The mean MCS score was 44.5 for subjects with AD versus 48.0 for non-AD controls ($P<.001$), and the mean PCS score was 47.6 for subjects with AD versus 49.5 for non-AD controls ($P=.004$) (estimated on a scale of 0 to 100 for both components, with higher scores indicating better health status). Mean SF-6D health utility scores were also significantly lower for subjects with AD than for non-AD controls (0.67 vs 0.72, respectively, $P<.001$) (estimated on a scale of 0 to 1, with higher scores indicating better health status). Compared with psoriasis, AD had a similar impact on HRQoL.

Recently, Eric Simpson et al. have shown that the effect on quality of life in adult atopic dermatitis is due to inadequate treatment for atopic dermatitis. Mean DLQI scores were higher among patients with moderate/severe vs those with mild disease (9.2 vs 2.9; $P<.001$), and among patients with inadequately controlled vs controlled disease (13.4 vs 9.3; $P<.001$). Higher proportions of patients with moderate/severe and those with inadequately controlled disease reported that AD had a very large effect on their HRQoL ($DLQI>10$) relative to their respective comparator categories. Higher proportions of patients with moderate/severe disease also reported that AD had substantial impacts on all individual DLQI items (all $P<.001$); patients with inadequately controlled disease reported a greater impact across items except for "influence clothes worn" and "sexual difficulties". In particular, item 7 on the DLQI, which elicits information on prevention of work or study, was reported by 116 (14.0%) and 18 (2.6%) patients with moderate/severe and mild disease, respectively ($P<.001$), and by 28 (27.2%) and 15 (18.3%) patients with inadequately controlled and controlled disease, respectively ($P<.001$).

As the number of elderly increases worldwide, the disease burden of this relatively undescribed condition can be anticipated to increase in both personal and societal cost. The pruritus, painful broken skin, and infections associated with AD contribute to a decline in quality of life and increased financial and public health burden. More knowledge about elderly AD is needed to establish firm diagnostic and treatment methodologies. Prompt and adequate care that achieves remission could ensure a robust quality of life and allay the higher healthcare costs incumbent with hospitalization for severe AD.

QoL of children patients with atopic dermatitis and their families

It is recognized that atopic dermatitis can adversely impact quality of life, as measured by validated scales and from patient and family interviews. Apart from the physical symptoms of atopic dermatitis, such as itch and pain, atopic dermatitis can lead to embarrassment related to appearance and to detriments in self-esteem and related to patients' social life. Atopic dermatitis can be a very time-consuming condition, with some patients and families spending more than an hour each day on activities related to the disease.

The effects of AD can extend well beyond affected children and diminish their families' quality of life (QoL) as well. Increased severity of AD, both perceived by the caregiver and by physicians, is correlated with greater reduction in family QoL, while treatment of AD has been shown to improve family QoL.⁹ Effective treatment and recognition of factors causing impaired QoL are important for physicians to understand as they attempt to reduce the negative impact of AD. Most AD patients and their families cope with their disease well, and patients who experience significant QoL impact often have severe, treatment – recalcitrant disease or psychiatric comorbidities. Nevertheless, AD can significantly decrease family QoL in a select minority of patients. AD has long been proposed to have a psychosomatic component, and strained parent – child relationships can worsen AD in children.²⁰ One thing that practitioners should observe for, particularly in the pediatric AD setting, is pathologic family dynamics. This can be difficult to recognize, as families are often on their best behavior in the office, and the person who accompanies the child may not fully understand the family's dynamics.

Conclusion

Atopic dermatitis in adults can be observed to cause socioeconomic problems such as the loss of productivity due to various psychological diseases and the tendency of destroying the quality of life according to the control of illness because of the management of disease itself. Ultimately, they should be observed and supported nationally. In the case of children, since the subject who controls the illness is the family, the severity of the atopic dermatitis alone is not enough to affect the quality of life, but it is urgently needed to recognize and resolve the conflicts and problems that arise in the caring process.

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