

ORIGINAL RESEARCH

Assessment of the quality of life in children with atopic dermatitis

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ABSTRACT

Background: Atopic dermatitis (AD) is a chronic inflammatory skin condition with a complicated origin. The present study was conducted to assess the quality of life in children with atopic dermatitis.

Materials & Methods: 58 cases of AD of both genders were evaluated using the Children's Dermatology Life Quality Index (CDLQI). The impairment of the quality-of-life score (IDQOL) was also evaluated.

Results: Out of 58 patients, males were 28 and females were 30. The total CDLQI score in mild impairment at baseline was 9.6 and after 1 year was 3.4. In moderate impairment at baseline was 0.7 and after 1 year was 0.3 and in severe impairment at baseline was 0.8 and after 1 year was 1.4 respectively. The difference was significant ($P < 0.05$). The mean IDQOL score in mild impairment at baseline was 9.5 and after 1 year was 2.7. In moderate impairment at baseline was 11.4 and after 1 year was 9.3 and in severe impairment at baseline was 10.3 and after 1 year was 15.4 respectively. The difference was significant ($P < 0.05$).

Conclusion: The likelihood of a significant improvement in atopic dermatitis-related quality of life is higher in children with less severe atopic dermatitis.

Key words: Atopic dermatitis, Children's Dermatology Life Quality Index, Skin

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INTRODUCTION

Atopic dermatitis (AD) is a chronic inflammatory skin condition with a complicated origin. Dermatitis derives from the Greek "derma" which means skin, and "itis," which means inflammation. Although AD is largely understood to be a childhood disease, mounting evidence points to a higher prevalence of AD in adults. Up to 95% of people with atopic dermatitis begin experiencing symptoms before the age of five, and about 50% begin experiencing symptoms during the first year of life.² Due to the chronic nature of atopic dermatitis and its interference with daily functioning, the quality of life of both younger and older children can be impaired. The impairment of quality of life in children with atopic dermatitis varies from mild to extremely severe. Existing evidence suggests that poor quality of life in children contributes to unfavorable atopic dermatitis-related outcomes such as poor compliance with medical treatment, fear of corticosteroids, insufficient knowledge about atopic dermatitis and use of other medicines, such as complementary and alternative therapies. The complicated pathophysiology of AD includes genetic susceptibility, epidermal dysfunction, and T-cell-driven inflammation. AD is also linked to a

higher risk of a number of comorbid conditions, such as asthma, allergic rhinitis, and food allergies. Comorbidities include additional skin disorders, gastrointestinal, joint, and cardiovascular issues in addition to atopic conditions. Different ethnic groups, geographical areas, and age groups exhibit significant variations in AD symptoms, which may affect how AD is diagnosed. The present study was conducted to assess the quality of life in children with atopic dermatitis.

MATERIALS & METHODS

The present study was conducted at Burari Hospital, Delhi which consisted of 58 cases of AD of both genders. Parents gave their written consent to participate in the study. Data such as name, age, gender, etc. was recorded. Patients were evaluated using the Children's Dermatology Life Quality Index (CDLQI). The impairment of quality of life score due was 0–1 = no effect, 2–6 = small effect, 7–12 = moderate effect, 13–18 = very large effect, and 19–30 = extremely large effect of atopic dermatitis on the child's life.¹⁰ The severity of atopic dermatitis was assessed by the same dermatologist (VR) at baseline and after 1 year of follow-up using the scoring Atopic

Dermatitis index (SCORAD). Data thus obtained were considered significant. subjected to statistical analysis. P value < 0.05 was

RESULTS

Table I: Distribution of patients

Total- 58		
Gender	Male	Female
Number	28	30

Table :I shows that out of 58 patients, males were 28 and females were 30.

Table II: Assessment of children's dermatology life quality index (CDLQI)

AD	Baseline	After 1 year	P value
Mild impairment	9.6	3.4	0.01
Moderate impairment	0.7	0.3	0.03
Severe impairment	0.8	1.4	0.02

Table :I, graph I show that the total CDLQI score in mild impairment at baseline was 9.6 and after 1 year was 3.4. In moderate impairment at baseline was 0.7 and after 1 year was 0.3 and in severe impairment at baseline was 0.8 and after 1 year was 1.4 respectively. The difference was significant (P< 0.05).

Graph I: Assessment of children's dermatology life quality index (CDLQI)

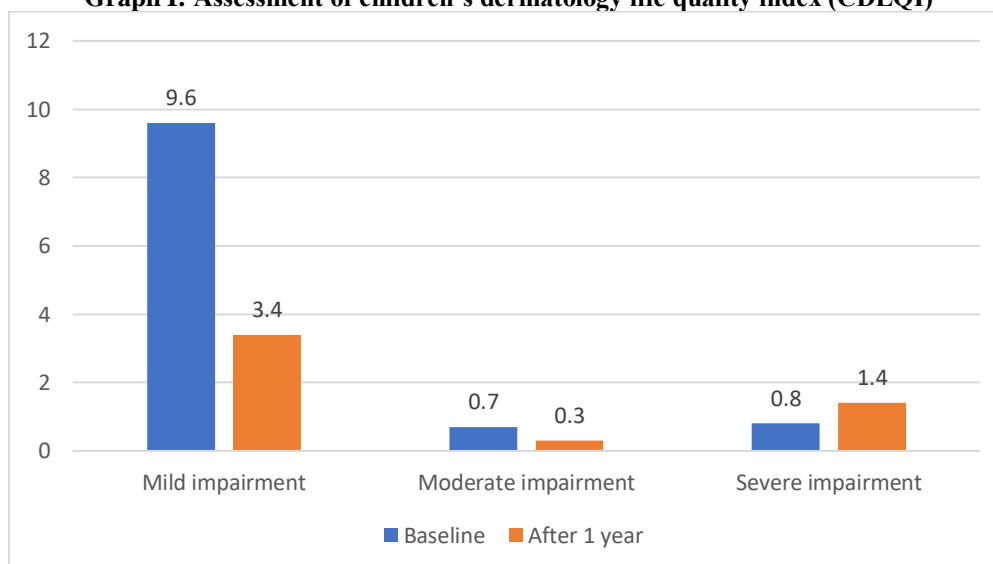


Table III: Impairment of children's quality of life (IDQOL)

AD	Baseline	After 1 year	P value
Mild impairment	9.5	2.7	0.01
Moderate impairment	11.4	9.3	0.05
Severe impairment	10.3	15.4	0.04

Table III : shows that the mean IDQOL score in mild impairment at baseline was 9.5 and after 1 year was 2.7. In moderate impairment at baseline was 11.4 and after 1 year was 9.3 and in severe impairment at baseline was 10.3 and after 1 year was 15.4 respectively. The difference was significant (P< 0.05).

DISCUSSION

In contrast to those with late-onset atopic dermatitis, around 50–75% of all children with early-onset atopic dermatitis are sensitized to one or more allergens, such as food allergens, home dust mites, or pets. However, eating certain foods or being exposed to airborne allergens seldom causes atopic dermatitis exacerbations; many atopic dermatitis patients have food sensitivities without these sensitivities contributing to the severity of their eczema. When it affects a child severely, atopic dermatitis signals the

onset of additional atopic illnesses. Asthma and hay fever development risks for children with moderate to severe atopic dermatitis can reach 50% and 75%, respectively. The present study was conducted to assess the quality of life in children with atopic dermatitis. We found that out of 58 patients, males were 28 and females were 30. Gazibara et al assessed factors associated with the quality of life of children with atopic dermatitis. Improvements of both CDLQI and IDLQI were observed in children whose

impairment of quality of life due to atopic dermatitis after one year was 'mild'.

This was not observed in children whose atopic dermatitis caused either 'moderate' or 'severe impairment' of their quality of life. Adjusted analysis showed that lower initial SCORAD and greater improvement in SCORAD after the one-year follow-up were associated with a better quality of life at follow-up. We observed that the total CDLQI score in mild impairment at baseline was 9.6 and after 1 year was 3.4. In moderate impairment at baseline was 0.7 and after 1 year was 0.3 and in severe impairment at baseline was 0.8 and after 1 year was 1.4 respectively. Goyal et al compared the extent to which various skin diseases affect the quality of life among the pediatric age group (5–12 years) based on Children's Dermatology Life Quality Index scores. Out of a total of 453 patients identified for dermatoses, the average quality of life-based on the CDLQI score did not show significant variation across different seasons. Although the type of skin disorders had a significant effect on the quality of life of the children. Based on the CDLQI scores, the following diseases have a significant adverse effect on the quality of life of the patients – miliaria, atopic dermatitis, scabies, impetigo, and pediculosis capitis. We found that the mean IDQOL score in mild impairment at baseline was 9.5 and after 1 year was 2.7. In moderate impairment at baseline was 11.4 and after 1 year was 9.3 and in severe impairment at baseline was 10.3 and after 1 year was 15.4 respectively. Kim et al¹⁴ in their study assessments were performed on 415 patients with AD. A questionnaire derived from the Infants' Dermatitis Quality of Life Index (IDQOL), the Children's Dermatology Life Quality Index (CDLQI) and the Dermatology Life Quality Index (DLQI) was used to determine the QOL for 71 infants, 197 children and 147 adults, respectively. To measure AD severity, both the Rajka & Langeland scoring system and the Scoring of Atopic Dermatitis (SCORAD) index were used. The mean scores were as follows: 7.7 ± 5.5 for IDQOL, 6.6 ± 6.3 for CDLQI, and 10.7 ± 7.9 for DLQI. In conclusion, these QOL scores are correlated with AD severity scores as estimated by the Rajka & Langeland severity score and the SCORAD. The outcome of the QOL instruments in this study demonstrates that atopic dermatitis of both children and adults affects their QOL.

The limitation of the study is small sample size.

CONCLUSION

Authors found that the likelihood of a significant improvement in atopic dermatitis-related quality of life is higher in children with less severe atopic dermatitis.

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