

LETTER TO THE EDITOR

Quality of life in atopic dermatitis: Changes over 6 years in patients who report persistent eczema

Dear Editor,

We have read the paper by Maksimović *et al.* with interest describing the quality of life (QOL) of patients with atopic dermatitis (AD).¹ The longitudinal dynamics of QOL over longer periods is of particular relevance in chronic recurrent disease such as AD. A previous study suggested that current QOL was better than recalled QOL of the last year.² Data gathered in a routine setting in 2003/2004 enable us to explore the problem prospectively.

In connection with the recruitment for a patient education study of AD in the winter 2003/2004, participants were asked to assess the impact of AD using QOL questionnaires prior to participation. The Dermatology Life Quality Index (DLQI)³ was given to patients aged more than 16 years, and the Infant's Dermatitis Quality of Life Index (IDQOL)⁴ was given to parents of children aged 0–4 years. No children aged 5–16 years were included. The patient was followed up in June 2010. Questionnaires were sent to 62 patients, containing a general questionnaire and a copy of DLQI or Children's Dermatology Life Quality Index (CDLQI: designed for use in children aged 5–16 years as the children had aged in the intervening years).⁵ DLQI, CDLQI and IDQOL are validated tools for dermatological QOL assessment in adults and children.^{3–5} The questionnaires have considerable similarities, and all cover the preceding week. They all consist of 10 questions, each scoring 0–3, giving a maximum score per questionnaire of 30; the higher the score the greater QOL impairment.⁶

The patients were asked to assess the severity of their eczema during the last week on a Visual Analog Scale (VAS, range 0–100) which has been shown to correlate with objective measures of disease severity.⁷

Quality of life score and severity differences were studied using the non-parametric paired Wilcoxon rank sum test. Fifty-four of 62 patients (37 children and 17 adults) completed the questionnaires (response rate 87%). Non-responders were contacted once by phone. Thirty-five of 54 (65%) patients answered "yes" to the question "Do you still have atopic dermatitis?" and completed the rest of the questionnaire. One participant was excluded because of an unanswered DLQI, leaving a total of 34 subjects. Among the 19 patients (35%) who answered that they no longer had eczema, three were adults.

The study population in 2010 was 20 children (10 girls/10 boys) and 14 adults (13 women/one man). Mean age of the children was 8.3 years ([standard deviation 1.4] range 6–9; median 8), mean age of the adults was 46.9 ([standard deviation 16.6] range 25–72; median 48).

The 2003/2004 QOL score for all the participants had a mean value of 6.6 ([confidence interval [CI] 4.6–8.6] median 4). The mean 2010 QOL score was 3.7 ([CI 2.1–5.4] median 2.0) ($P = 0.020$). Scores for children were lower than for the adults. In adults, a non-significant trend was found comparing 2003/2004 and 2010. Significant differences were found for children ($P = 0.036$). Both groups had an almost 50% improvement in QOL score. The patients' self-assessed severity of AD in 2003/2004 and 2010 was compared. This showed a significant decrease in total mean score from 31.4 ([CI 23.4–39.5] median 24.5) to 20.1 in 2010 ([CI 11.7–28.5] median 11.0) ($P = 0.029$).

This explorative study suggests that QOL improves over time in patients with persistent AD. This is in good agreement with an 11-year study of the impact of psoriasis on QOL.⁸

An almost 50% improvement occurred from the "past" QOL total score to the "present" QOL total score using validated age-appropriate questionnaires. The mean self-reported severity was improved by 33%. Self-reported severity scores of AD using a VAS score has previously been shown to correlate with both objective and subjective severity scores indicating that patients may see this measure as an integrated composite measure and the improvement may therefore reflect objective as well as subjective elements.⁷ We found a similar improvement of QOL in both children and adults over the 6-year period, even though not statistically significant for the adults.

The long observation period necessitates a discussion of the questionnaires used. No formal studies have been carried out comparing the DLQI, CDLQI and IDQOL over a period of years, but each questionnaire is a valid QOL measure for the target age groups. It is therefore hypothesized that if the patients' absolute skin-related QOL can be measured by these instruments, the results may subsequently be compared over time. The results suggest that QOL improves over time either due to improved coping, perhaps due to maturation of the children, or reduced severity of the disease.

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