The role of itch resolution and skin clearance in patient-reported atopic dermatitis severity and quality of life: Real-world Insights from TARGET-DERMD

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Introduction
• Severity of atopic dermatitis (AD) itch and lesions is associated with poor quality of life.
• However, there is limited evidence describing the combined impact of itch and skin severity on patient outcomes in AD.

Objective
To assess the independent and combined effects of itch and skin severity on patient-reported symptoms and quality of life outcomes.

Methods
• Inclusion Criteria
  • Adult participants (age ≥18 years).
  • Enrolled in TARGET-DERMD, an observational, longitudinal study of participants with AD across 43 academic/community centers in the United States and Canada (N=1,358 at the time this analysis was conducted).

• Assessments
  • Patient-Reported Outcome Measurement Information System (PROMIS) Itch Severity question evaluating “itch at its worst”, (range 0–10). Responses of 0–1 were interpreted as no/minimal itch.
  • The validated Investigators Global Assessment of AD (vIGA-AD, range 0–4). Scores of 0–1 represented clear/almost clear skin (vIGA-AD 0–1).
  • Patient-Oriented Eczema Measure (POEM, range 0–28). Values of 0–2 represented patient-reported clear/almost clear disease.
  • Dermatology Life Quality Index (DLQI, range 0–30). Values of 0–1 were interpreted as no impact on quality of life.

• Analyses
  • Patient characteristics were summarized using descriptive statistics.
  • The proportion of patients reporting clear/almost clear disease (POEM 0–2) and no impact on quality of life (DLQI 0–1) were reported by categories of severity and itch.
  • Clear/almost clear disease (POEM 0–2) and no impact on quality of life (DLQI 0–1) were modeled using logistic regression models and included main and interaction effects for no/minimal itch and clear/almost clear skin.

Results
• Of 3,158 patients in TARGET-AD, 1,795 were adults. Respectively, 792 and 783 had baseline POEM or DLQI scores (Figure 1).
• Patients generally exhibited moderate disease severity as shown by the median vIGA-AD, DLQI, POEM, and Worst itch scores (Table 1).
• The proportion reporting POEM 0–2 was highest among those with no/minimal itch (72%) and clear/almost clear skin (46%), with decreasing proportions observed at greater itch severity levels.
• The proportion reporting DLQI 0–1 was highest among those with no/minimal itch (72%) and clear/almost clear skin (46%), with decreasing proportions observed at greater skin severity levels.
• Among patients with clinician reported clear/almost clear skin, the proportion of patients reporting POEM 0–2 and DLQI 0–1 was especially high among those with no/minimal itch (87.5% and 82.6%, respectively; Figures 4 & 5).

• Logistic regression results suggest that no/minimal itch and clear/almost clear skin are significantly associated with POEM 0–2 and DLQI 0–1, though the interaction effect was not statistically significant in all models assessed (Table 2).
• Compared to those who had neither no/minimal itch nor clear/almost clear skin, the odds ratio of reporting POEM 0–2 or DLQI 0–1 was highest among those with both no/minimal itch and clear/almost clear skin, followed by no/minimal itch only, and clear/almost clear skin only (Figure 6).

Conclusion
• Complete or almost complete relief of itch and skin lesions is associated with greater odds of achieving ideal states in PROs (POEM and DLQI) with itch relief exhibiting a relatively higher impact on DLQI.
• These results underscore the importance of assessing and documenting both itch severity and skin clearance to support shared decision-making and setting treatment goals.
• Future research should include analyzing discrepant data (e.g. patients with no/minimal itch, but some skin lesions) to more precisely identify which aspect drives the patient-reported outcomes.

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