Introduction

The severity of atopic dermatitis (AD) itch and lesions are 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-DERM AD, an observational, longitudinal study of participants with AD across 52 academic/community centers in the United States and Canada (n=4134 at the time this analysis was conducted).

The following outcomes were used to define subgroups of patients:

- Patient-Reported Outcome Measurement Information System (PROMIS) Itch Severity, question asking "Worst Itch" on a numerical rating scale, (0=NRs, range 0–10).
- WiNRS 0–1 representing no/minimal itch.
- The Validated Investigator Global Assessment of AD (vGA-AD, range 0–4). vGA-AD 0–1 representing clear or almost clear skin.

An "Ideal State" was defined for each Patient-Reported Outcomes (PROs) as below:

- Patient-Oriented Eczema Measure (POEM, range 0–28); Ideal State = 0–2, representing clear/almost clear AD.
- Dermatology Life Quality Index (DLQI, range 0–30); Ideal State = 0–1, representing no impact on quality of life.
- Numeric Rating Scale-Sleep (NRS-Sleep, range 0–10); Ideal State = 0–1, representing no sleep disturbance due to AD.
- NRS-Pain (range 0–10); Ideal State = 0–1, representing no pain.

Analyses

- Patient characteristics were summarized using descriptive statistics.
- The proportion of patients reporting an ideal state for each PRO was grouped by category of itch severity and vGA-AD severity.
- Ideal State (clear/almost clear AD severity, no impact on quality of life, no sleep disturbance and no pain) was modelled using logistic regression and included main and interaction effects for no/minimal itch and clear/almost clear skin.

Results

- Of 967 patients in TARGET-DERM AD, 1934 were adults. Of these 967, 975, 956, and 965 had baseline DLQI, POEM, NRS-Sleep, and NRS-Pain scores, respectively (Figure 1).
- Patients generally exhibited moderate disease severity as shown by the median vIGA, POEM, and Worst itch scores (Table 1).
- The proportion reporting DLQI 0–1 and POEM 0–2 was highest among those with clear/almost clear skin (45% and 78%, respectively) (Figure 2).
- The proportion reporting DLQI 0–1 and POEM 0–2 was highest among those with no/minimal itch (52% and 54%, respectively) (Figure 3).
- Among patients reporting no/minimal itch the proportion of patients reporting DLQI 0–1 and POEM 0–2 was highest among those with clear/almost clear skin (69% and 78%, respectively; Figure 4).
- Among patients with clear/almost clear skin, the proportion of patients reporting DLQI 0–1 and POEM 0–2 was highest among those with no/minimal itch (69% and 76%, respectively; Figure 5).

Conclusion

Complete or almost complete relief of itch and skin lesions is associated with greater odds of achieving ideal states in PROs with itch relief generally exhibiting a higher impact than skin clearance.

These results underscore the importance of assessing and documenting both itch severity and skin clearance to support shared decision-making, setting treatment goals, and achieving ideal states.

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