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Real-World Effectiveness of Lebrikizumab for the Prurigo Nodularis–Like Phenotype of Atopic Dermatitis: A One-Year Retrospective Study

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To the Editor:

Atopic dermatitis (AD) presents with several phenotypes, among which the prurigo nodularis (PN)-like phenotype is particularly resistant to treatment.[1] PN-like phenotype of AD is characterized by multiple widespread pruritic nodules and intense and persistent itch, sometimes accompanied by pain.[1] Interleukin (IL)-13 is a type-2 cytokine that plays a central role in skin inflammation, barrier disruption, and pruritus associated with AD, including PN-like phenotype.[2]

Lebrikizumab is a high-affinity humanized immunoglobulin G4 monoclonal antibody that specifically inhibits IL-13. Clinical trials and real-world studies have demonstrated its effectiveness and good tolerability for moderate-to-severe AD.[3,4,5] However, data on the effectiveness of lebrikizumab are currently lacking for the PN-like phenotype of AD. Therefore, we retrospectively evaluated the effectiveness and safety of lebrikizumab in 26 patients aged ≥ 12 years with PN-like phenotype of AD who were treated for at least 4 weeks (up to 48 weeks) from May 2024 to July 2025. At baseline, all patients had ≥ 20 excoriated and hyperkeratotic nodules primarily on the trunk and extremities. Lebrikizumab was administered subcutaneously at 500 mg at weeks 0 and 2, followed by 250 mg every 2 weeks together with topical corticosteroids of moderate-to-strongest potency. After week 16, all patients received lebrikizumab every 4 weeks. Written informed consent was obtained from all patients.

Baseline features of patients are as follows: male 57.7%, aged mean ± standard deviation 58.3 ± 13.8 years; investigator global assessment (IGA) 3.4 ± 0.6, eczema area and severity index (EASI) 24.0 ± 9.2, peak pruritus numerical rating scale (PP-NRS) 7.1 ± 2.9, sleep quality NRS 6.7 ± 3.0, and dermatology life quality index (DLQI) 8.8 ± 6.5. Nine patients previously received systemic therapy (1 patient with baricitinib 4 mg, 3 with upadacitinib 15 mg, 1 with upadacitinib 30 mg, 2 with dupilumab, and 3 with tralokinumab).

EASI, PP-NRS, sleep quality NRS, and DLQI were assessed at weeks 4, 12, 16, 24, 36, and 48. All these scores rapidly decreased by week 12, thereafter plateaued or gradually decreased through week 48 (Figure 1). The rates achieving IGA 0/1, ≥ 4-point improvement of PP-NRS, ≥ 4-point improvement of sleep quality NRS, and DLQI 0/1 continued to increase and reached 50.0%, 64.3%, 80.0%, and 66.7%, respectively, at week 48 (Figure 1). Simultaneously, PN lesions became flattened and decreased over time in most patients. Mild-to-moderate conjunctivitis occurred in three patients. There were no serious adverse events or adverse events leading to discontinuation of lebrikizumab.

In conclusion, this study demonstrated the effectiveness and tolerability of lebrikizumab for the PN-like phenotype of AD. Limitations were the small sample size and inability to precisely track the number of PN-like lesions. Further investigation in larger cohorts with longer follow-up periods and precise counting of PN is required to confirm the long-term effectiveness of lebrikizumab for the PN-like phenotype of AD.

DISCLOSURES

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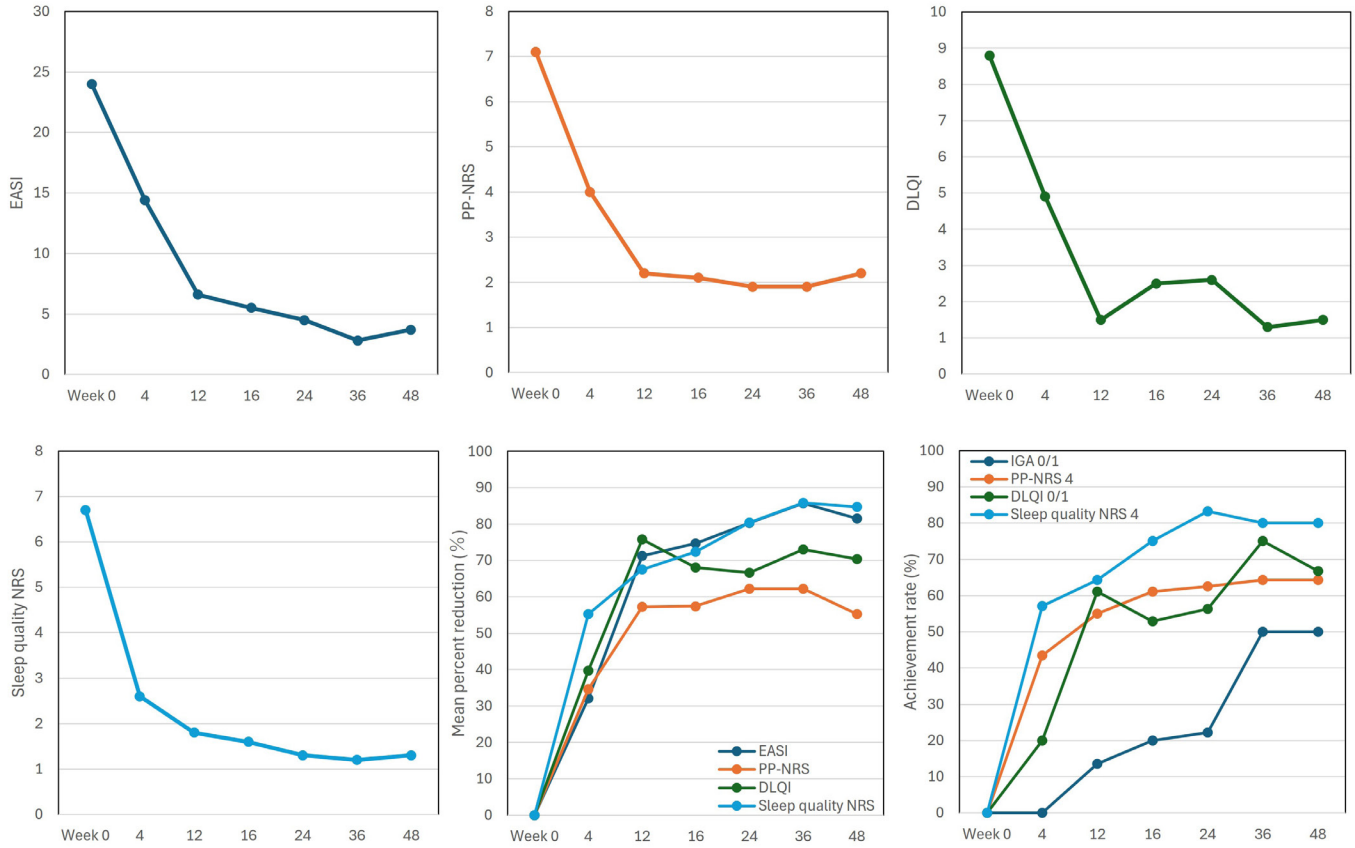
FIGURE 1. Clinical responses to lebrikizumab in patients with prurigo nodularis–like phenotype of atopic dermatitis (n = 26) during 48-week



Data are transition of mean eczema area and severity index (EASI), mean peak pruritus numerical rating scale (PP-NRS), mean dermatology life quality index (DLQI), mean sleep quality numerical rating scale (sleep quality NRS), mean percent reductions of EASI, PP-NRS, DLQI, and sleep quality NRS from baseline, and achievement rates of investigator global assessment (IGA) 0/1, ≥ 4-point reduction of PP-NRS (PP-NRS4), DLQI 0/1, and ≥ 4-point reduction of sleep quality NRS (sleep quality NRS4).

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