Examining the longitudinal course of falling and staying asleep in adult atopic dermatitis in clinical practice

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Background: While studies have examined sleep disturbance (SD) in atopic dermatitis (AD) patients, few examined the longitudinal course of specific measures such as falling asleep and staying asleep.

Objective: To understand the longitudinal course of falling asleep and staying asleep in adult AD patients.

Methods: A cross-sectional, dermatology practice-based study was performed (n=1,295), and atopic dermatitis was diagnosed by Hanifin-Rajka criteria. Patients were serially recruited from the eczema clinic at an academic medical center between 2014-2019. The Patient-Reported Outcomes Measurement Information System (PROMIS) sleep disturbances (SD) questionnaire included specific questions regarding frequency of difficulty falling asleep and staying asleep in the past 7 days.

Results: At baseline, 19.1% of patients had difficulty falling asleep often/always and 22.9% of patients had difficulty staying asleep often/always based on the PROMIS SD questionnaire. Among patients experiencing baseline difficulty falling asleep, 39.8% had severe/very severe AD. Though, an improvement was seen as 45.3% experienced persistent difficulties at the 1st follow up visit and only 37.5% experienced persistent difficulties at the 2nd follow-up. Similarly, among patients experiencing baseline difficulty staying asleep, 36.8% had severe/very severe AD and a significant proportion of patients improved. Overall, a greater proportion of patients (31.4%) had persistent difficulties staying asleep than falling asleep (17.7%). Baseline predictors of persistent difficulty falling asleep included severe/very severe AD (adjusted odds ratio [95% confidence interval]: 7.69 [3.88-15.26]) and baseline difficulty falling asleep always (28.33 [15.59-51.50]). Baseline predictors of persistent staying asleep included severe/very severe AD (4.22 [2.26-7.89]), having 3-6 nights of itch (1.77 [1.10-2.84] or 7 nights of itch (2.06 [1.18-3.60]) and baseline difficulty staying asleep always (18.89 [12.78-27.89]).
Conclusion: A large proportion of adult patients with moderate and severe AD had baseline difficulties falling asleep and staying asleep. Difficulty staying asleep persisted longer than difficulty falling asleep.