Pityriasis Rubra Pilaris (PRP) treated with ixekizumab: an open-label pilot trial

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Background

Pityriasis rubra pilaris (PRP) is a rare/orphan disabling cutaneous disease that is characterized by widespread red scaly plaques and palmoplantar keratoderma. Overexpression of Th17 cytokines has been reported, suggesting an inflammatory pathogenesis that may have similarities to psoriasis [1]. We report results from a 24-week trial investigating ixekizumab, an IL-17A inhibitor, for the treatment of PRP.

Methods

Eleven adult patients with moderate-to-severe PRP (as defined by Psoriasis Area and Severity Index [PASI] score of ≥ 10) received ixekizumab for 24 weeks at the FDA-approved dosing for psoriasis. Disease activity and severity was assessed by multiple investigator and patient-reported outcomes including PASI, Dermatology Life Quality Index (DLQI), and 10-point itch and pain numeric rating scales. Statistics were performed using paired t-tests.

Results

Improvement in PASI

24-Week Response To Ixekizumab as Measured by PASI

Figure 1. Aggregate response curves of the 11 participants to complete the trial. The overall score on the PASI ranges from 0 (clear skin) to 72 (worst possible disease). 7 of 11 (64%), 5 of 11 (45%), and 2 of 11 (18%) participants achieved PASI50, PASI75, and PASI90, respectively, at week-24.

Clinical Photography

Figure 3. Selected photographs taken at enrollment and following 24 weeks of ixekizumab treatment.

Figure 2. The Dermatology Life Quality Index (DLQI) is scored from 0-30 on the results of a standardized patient questionnaire. Mean DLQI decreased from 18.8 ± 6.3 at enrollment to 9.35 ± 10.5 at week-24. 9/11 (81.8%) participants demonstrated a clinically meaningful decrease of ≥ 4-points.

Figure 4. The itch and pain numeric rating scales (NRS) are scored from 0-10 with 0 reflecting no itch/pain over the past week and 10 reflecting the most significant itch/pain imaginable. Mean itch decreased from 6.8 ± 1.9 to 3.3 ± 3.2. Mean pain decreased from 5.8 ± 2.3 to 2.2 ± 2.5.

Conclusion

Ixekizumab is an effective and safe treatment option for some patients with PRP. Further biomarker research is warranted in order to predict clinical response.

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References

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