Tralokinumab improves clinically relevant outcome measures: a post hoc analysis of ECZTRA 3, a randomized trial in patients with moderate-to-severe atopic dermatitis

Introduction

**Bispecific anti-IL-31Rα/IL-31 is a chronic inflammatory skin disease, characterized by eczematous lesions and is associated with symptoms including itching, dryness, and depression** [1].

Tralokinumab is a fully humanized immunoglobulin G1κ monoclonal antibody (mAb) designed to neutralize interleukin (IL)-31 and its receptor IL-31Rα, which is shown to drive the infiltration of T cells and neutrophils into the skin [2]. It is currently approved for adult patients with moderately to severely active atopic dermatitis (AD) with disease activity activity levels severe enough to affect Quality of Life (QoL) [3].

Tralokinumab (TRALO) and TCS are two therapeutic options available for moderate-to-severe AD patients. The ECZTRA 3 trial showed that tralokinumab 300 mg every other week (q2w) and TCS combination treatment led to reduced skin inflammation and improved QoL compared to placebo (PL) [4].

**The objective of this post hoc analysis was to assess response to tralokinumab in combination with TCS as needed, based on outcome domains and time points typically used in clinical practice**.

Methods

**Patients and study design**

ECZTRA 3 was a randomized, double-blind, placebo-controlled, 52-week trial. Patients with moderate-to-severe AD were randomly assigned (2:1) to tralokinumab q2w or placebo (PL) plus TCS for 16 weeks, followed by an open-label maintenance period of 36 weeks [5].

The trial included 253 patients randomized to tralokinumab q2w plus TCS combination therapy and 127 patients randomized to PL q2w plus TCS combination therapy (Figure 1). Patients had a long duration of AD prior to enrollment, with almost half of patients having severe AD at baseline. The study was conducted in 90 sites across 11 countries.

**Statistical analyses**

For the analysis of disease activity and QoL, responder rates were calculated for patients achieving each binary target at selected time points, and overall response rates were calculated by combining the responder rates of all time points using the Cochran-Mantel-Haenszel (CMH) test. Additionally, the proportion of patients achieving ‘clinical meaningful change’ (reduction from baseline to month 6 of at least 50% or 75% in EASI score) was assessed using the binomial distribution test. All statistical analyses were conducted in SAS version 9.4 (SAS Institute Inc., Cary, NC, USA) [5].

**Results**

**Patient characteristics**

1. **Overall, 80% of patients had a worst pruritus NRS score of 1 every week followed by their AD at baseline**.

2. **Overall, 40% of patients achieved IGA 4 (Table 2)**.

3. **Overall, 37% of patients achieved mild AD as judged by POEM or worst weekly PGI-B, 43% as judged by EASI-50, and 43% as judged by EASI-75 at baseline**.

**Post hoc analysis**

**Target achievement at months 3 and 6**

1. **Overall, 82% of patients receiving tralokinumab every 2 weeks plus TCS achieved at least one of the defined binary targets, clinically relevant change in EASI-50 or EASI-75, at 6 months.**

2. **78% (193/250) of patients receiving tralokinumab every 2 weeks plus TCS achieved at least one of the defined binary targets, clinically relevant change in EASI-50 or EASI-75, at month 3**.

3. **Overall, 91% of patients receiving tralokinumab every 2 weeks plus TCS achieved at least one of the defined binary targets, clinically relevant change in EASI-50 or EASI-75 at month 6**.

**Safety**

**Tralokinumab in combination with TCS was well tolerated with the overall safety being comparable to that of tralokinumab alone**. During the maintenance phase, the safety profile of tralokinumab plus TCS was comparable with the initial treatment period.

**Conclusions**

Overall, the safety profile in combination with TCS was associated with lower rates of severe and serious adverse effects and escalation of moderate to severe pruritus versus placebo plus TCS (Table 3).

**All concomitant care was provided to moderate and only on-treatment discontinuation**.

References


5. ClinicalTrials.gov (NCT02756360).

Disclosures

Weidinger received research funding from Novartis, Amgen, Mylan, and Galderma. Prior to the study, Weidinger was employed by Mitsubishi Tanabe Pharma Corporation. Jabin is a full-time employee of Novartis. Oleson is a full-time employee of Mitsubishi Tanabe Pharma Corporation. Nair, S. received research funding from AbbVie, Pfizer, Protalix, Lilly, Boehringer-Ingelheim, and Galderma. Lepoittevin received research support from Novartis and Purvisha. Weidinger received research funding from Novartis. Oleson is a full-time employee of Mitsubishi Tanabe Pharma Corporation.

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