Improvement of the head and neck regions with continuous tralokinumab treatment for up to 4 years in adults with moderate-to-severe atopic dermatitis

Raj Chovatiya,1 Andreas Wollenberg,2 Simone Ribero,3 Hidehisa Saeki,1 Christian B Olland,4 Louise A Stæffesen,1 Ann–Marie Tindberg,4 Jacob P Thyssen5,6, Andreas Blauvelt7 Northwestern University Feinberg School of Medicine, Chicago, IL, USA; 2Kühne Maximal University of Munich, Munich, Germany; 3University of Turin, Turin, Italy; 4Nippon Medical School, Tokyo, Japan; 5LEO Pharma A/S, Ballerup, Denmark; 6Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen, Denmark; 7Oregon Medical Research Center, Portland, OR, USA

Objectives

- To examine the efficacy of long-term tralokinumab treatment on the head and neck regions through a post hoc analysis of two Phase 3 clinical trials and the ongoing ECZTEND open-label trial
- To determine the proportion of patients achieving favorable outcomes in the head and neck regions
- To assess the safety and tolerability of tralokinumab treatment in these regions

Background

- Atopic dermatitis (AD) is a chronic, inflammatory disease that can affect multiple regions of the body and be particularly burdensome on exposed areas of skin, such as the head and neck (H&N) regions
- The H&N regions can be challenging to treat, and the use of medium- to high-potency topical corticosteroids (TCS) in this region is not recommended
- Tralokinumab, a high-affinity monoclonal antibody that specifically neutralizes interleukin-31, is approved for the treatment of moderate-to-severe AD in multiple countries
- ECZTEND (NCT0357805) is an ongoing open-label, 5-year extension trial investigating the long-term safety and efficacy of tralokinumab plus optional TCS

Results

- In patients treated with tralokinumab for up to a total of 4 years in ECZTRA 1 & 2 and ECZTEND, the median H&N EASI was reduced from 5.4 at pt baseline to 0.4 at Week 152. The proportion of patients with H&N EASI≤1 at Week 152 was 87.2% (95% CI: 83.3–90.1)
- In the most severe subgroup, with IGA 4 and high H&N involvement (H&N EASI≥4) at baseline (n=301), the median H&N EASI was reduced from 5.4 at pt baseline to 0.4 at Week 152. The proportion of patients with H&N EASI of 0 to 1 was 70.1% (95% CI: 62.9–76.6)
- The median total EASI (0–72) was improved from 28.2 at pt baseline to 13 at Week 152. The proportion of patients with EASI=0 at Week 152 was 86.5% and 58.3%, respectively (Figure 3)

Conclusions

- In this post hoc analysis, tralokinumab provided substantial improvements of head and neck regions in patients with moderate to severe AD for up to 4 years
- Similarly, sustained improvements were seen in severe patients with substantial head and neck involvement at baseline
- Improvements in head and neck regions were comparable to overall EASI improvement

Baseline and Disease Characteristics

- Patients generally exhibited moderate-to-severe disease severity at baseline (Table 1)
- The median treatment duration was 53.1 weeks (IGA 3.8–4.9) and max 238.5 weeks
- The most common reasons for discontinuation were Lack of efficacy (11.9%), Other reasons (9.8%), and Lost to follow up (4.2%)

Table 1. Baseline demographics and characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Initially randomized to tralokinumab Q2W (N=1192)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age, years (SD)</td>
<td>37.9 (9.4)</td>
</tr>
<tr>
<td>Male sex, n (%)</td>
<td>708 (59.4)</td>
</tr>
<tr>
<td>Mean BSA involvement, % TCS</td>
<td>52.8 (24.6)</td>
</tr>
<tr>
<td>Mean duration of AD, years (SD)</td>
<td>28.1 (15.2)</td>
</tr>
<tr>
<td>IGA 4 (severe), n (%)</td>
<td>591 (49.6)</td>
</tr>
<tr>
<td>Mean EASI (SD)</td>
<td>32.2 (9.4)</td>
</tr>
<tr>
<td>Mean H&amp;N EASI (SD)</td>
<td>3.2 (1.8)</td>
</tr>
</tbody>
</table>

Methods

- Data were obtained from all patients initiated on tralokinumab in ECZTRA 1 & 2, initially designed Phase 3 monotherapy trials conducted in adults with moderate to severe AD
- Patients on active treatment were followed for up to 52 weeks in parent trials, and patients that then enrolled in the long-term open-label study ECZTEND were followed up on an additional 152 weeks until the April 30, 2022 data cutoff (Figure 4)
- Data from Week 16 responders re-randomized to placebo were not included beyond that timepoint (Figure 4)

Analyses

- Overall EASI scores (0–72) were calculated as a composite of the intensity 0–3 and extent of involvement 0–4
- Head and neck regional scores (H&N EASI ≤ 1), the intensity of signs of symptoms, and disease activity in the head and neck were assessed individually (0–3) and then multiplied by extent of involvement (0–4). Then the 5% BSA weighting coefficient 0.1 was used
- Results are presented using observed data

Table 2. EASI responses to tralokinumab Q2W

<table>
<thead>
<tr>
<th>EASI at Week 152</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EASI = 0 (%)</td>
<td></td>
</tr>
<tr>
<td>EASI ≤ 1 (%)</td>
<td></td>
</tr>
<tr>
<td>EASI ≤ 2 (%)</td>
<td></td>
</tr>
<tr>
<td>EASI ≤ 3 (%)</td>
<td></td>
</tr>
<tr>
<td>EASI (improvement)</td>
<td></td>
</tr>
</tbody>
</table>

Disclosures: The authors report no relevant disclosures. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

References:

- 2. Smith, PhD

Presented at Fall Clinical Dermatology Conference, October 19–22, 2023

Figure 1. EASI Head and Neck (0–72)

Figure 2. EASI Head and Neck (0–72) in severe subgroup: IGA 4 and H&N EASI 24 at baseline

Figure 3. Overall EASI (0–72)

Figure 4. Trial Design

Figure 5. The EASI head and neck score describes the extent of AD involvement in the head and neck region as a summated (0–6) component of the primary EASI score. Each of the 6 head and neck regions (cheek, forehead, nose, ear, neck, and chin) is given a single score, ranging from 0 to 2, where 0 corresponds to normal appearance and 2 corresponds to severe involvement. The 6 head and neck regions are then multiplied by extent involvement (0–4) for each region, which describes the intensity of signs of symptoms, and summed to determine the total EASI head and neck score. The EASI head and neck score is constrained to a maximum of 24 (0–24).

Figure 6. Summary of adverse events. The most common treatment-related adverse events were Lack of efficacy (6.6%), Withdrawal by subject (11.9%), Other reasons (9.8%), and Adverse events (13.2%).