Achieving Incrementally Greater Skin Improvement Thresholds With Upadacitinib in Moderate to Severe Atopic Dermatitis: A Pooled Analysis of Two Phase 3 Studies (Measure Up 1 and Measure Up 2)

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INTRODUCTION

- Atopic dermatitis (AD) is a chronic, inflamed, inflammatory disease characterized by itch, skin dryness, skin crusting, scales, and psychological well-being, work productively, and overall quality of life.

- Greater skin improvement was described with improvements in patient symptoms (itch, skin pain), daily activities, work productivity, and overall quality of life.

- Upadacitinib is a selective, Janus kinase inhibitor being investigated for immune-mediated inflammatory diseases. Upadacitinib was studied in phase 3 clinical trials in adolescent and adult patients with moderate to severe AD in which upadacitinib 15 mg and 30 mg demonstrated superior efficacy compared with placebo in each trial.

METHODS

- Data were pooled from the randomized, placebo-controlled, double-blinded, 16-week trials (Trial 1: NCT03645633 and Trial 2: NCT03645634) with similar study design and endpoints.

- The studies enrolled adolescent and adult patients (age ≥12 years) with moderate to severe AD, defined as EASI ≥16.

- Data were analyzed by investigators using the investigator’s criteria for skin severity grading.

- Assessments of skin improvement were compared between upadacitinib and placebo using the proportion of patients achieving improved skin severity at baseline and week 16 for endpoints from the Eczema Area and Severity Index (EASI) improvement thresholds for baseline EASI >21.

- The proportion of patients achieving skin improvement was significantly greater for upadacitinib 15 and 30 mg vs placebo at week 16 for all EASI response thresholds (Figure 1).

RESULTS

- A total of 1643 patients were included in this analysis: upadacitinib 15 mg, n = 577; upadacitinib 30 mg, n = 577; placebo, n = 576.

- The proportion of patients achieving EASI improvement thresholds from Baseline to Week 16 was significantly greater for upadacitinib 15 and 30 mg vs placebo at Week 16 (Table 1).

- Distribution comparisons showed that the total proportion of patients achieving incrementally greater skin improvement thresholds at Week 16 were 74.6% with upadacitinib 15 mg vs placebo (Figure 2A) vs 77.7% with upadacitinib 15 mg vs placebo (Figure 2A).

- The proportion achieving incrementally greater skin improvement thresholds was significantly higher in upadacitinib than placebo with incrementally lower skin severity levels were greater with upadacitinib 30 mg compared with placebo (Figure 2B).

- These improvements in skin may translate to improvements in patient quality of life.

TABLE 1: Baseline Demographics and Disease Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Upa 15 mg (n = 557)</th>
<th>Upa 30 mg (n = 559)</th>
<th>PBO (n = 559)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>13.0 (8.7)</td>
<td>13.0 (8.7)</td>
<td>13.0 (8.7)</td>
<td>0.45</td>
</tr>
<tr>
<td>Sex</td>
<td>7.6%</td>
<td>7.6%</td>
<td>7.6%</td>
<td>1.00</td>
</tr>
<tr>
<td>Race, n (%)</td>
<td>93.8% S, 6.2% W</td>
<td>93.8% S, 6.2% W</td>
<td>93.8% S, 6.2% W</td>
<td>0.67</td>
</tr>
<tr>
<td>EASI</td>
<td>24.1% 11.0% 17.1% 32.4% 15.4%</td>
<td>24.1% 11.0% 17.1% 32.4% 15.4%</td>
<td>24.1% 11.0% 17.1% 32.4% 15.4%</td>
<td>0.87</td>
</tr>
</tbody>
</table>

- Upadacitinib 15 mg: Week 16 (NRI-C)

- Upadacitinib 15 mg vs PBO: Week 16 (NRI-C)

- Upa 30 mg vs UPA 15 mg: Week 16 (NRI-C)

- Upa 30 mg vs PBO: Week 16 (NRI-C)

- No statistical analysis was performed.

CONCLUSIONS

- Greater proportions of adolescent and adult patients achieved higher skin severity levels with incrementally greater skin improvement with upadacitinib 15 and 30 mg vs placebo.

- The total proportions achieving incrementally greater skin improvement thresholds were significantly higher in upadacitinib than placebo with incrementally lower skin severity levels were greater with upadacitinib 30 mg compared with placebo.

- These improvements in skin may translate to improvements in patient quality of life.

REFERENCES

- Reich K, et al. Eczema Activity and Severity Index (EASI) and validated Investigator Global Assessment of Atopic Dermatitis (vIGA-AD) response are associated with improvements in productivity, and overall quality of life. JAMA Dermatol. 2020;156(2): 128-134.

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DISCLOSURES

- K Reich has served as an advisor or paid speaker for and/or participated in clinical trials funded by AbbVie, Almirall, Amgen, Boehringer Ingelheim, Celgene, Elan, Eli Lilly, Genentech, GlaxoSmithKline, Ildong, Janssen, Menlo Therapeutics, Menlo Therapeutics, Novartis, Pfizer, Regeneron, Sanofi, and Samsung Biologics. He has served as a consultant or advisory board member for AbbVie, Amgen, Almirall, Almirall, Almirall, Almirall, Almirall, Amgen, Boehringer Ingelheim, Celgene, Elan, Eli Lilly, Genentech, GlaxoSmithKline, Ildong, Janssen, Menlo Therapeutics, Menlo Therapeutics, Novartis, Pfizer, Regeneron, Sanofi, and Samsung Biologics. A total of 1643 patients were included in this analysis: upadacitinib 15 mg, n = 577; upadacitinib 30 mg, n = 577; placebo, n = 576.