Evaluation of Response to Ritlecitinib Treatment Based on SALT Improvement Scores in Patients with Alopecia Areata: Post Hoc Analysis of the ALLEGRO Phase 2b/3 Study

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BACKGROUND

• Alopecia areata (AA) is an autoimmune disease that has an underlying immunoinflammatory pathogenesis and is characterized by non-scarring hair loss ranging from small plaques to complete loss of scalp, brow, and/or body hair.

• Ritlecitinib, an oral JAK1/TEC inhibitor, demonstrated efficacy and safety in patients aged 12 years with AA in the ALLEGRO phase 2b/3 trial (NCT03732807).1

• Significant improvements in the proportion of patients with Severity of Alopecia Tool (SALT) score ≥25 (100% scalp hair loss) at Week 24 (primary endpoint) were observed across ritlecitinib treatment groups in placebo (p < 0.001).

• Ritlecitinib was also found to have significantly higher SALT score ≤10 (10% scalp without hair) response rates than placebo at Week 24 (secondary endpoint).

METHODS

Study design

• The ALLEGRO phase 2b/3 trial was an international, randomized, double-blind, placebo-controlled, dose-ranging and pivotal study (Figure 1).

• Patients (aged ≥12 years with active AA) were randomized to receive ritlecitinib (200/50 mg, 50 mg, 30 mg) or placebo (3:1:1) for 24 weeks, followed by ritlecitinib at the same dose for 44 weeks, with patients assigned to placebo switched to ritlecitinib 200/50 mg for 20 weeks (extension phase).

• Key eligibility criteria

• Patients were aged ≥12 years with a diagnosis of AA and ≥25% scalp hair loss, including alopecia totalis and alopecia universalis, and a current AA episode duration of 6 months to 10 years.

RESULTS

Table 1. Baseline characteristics

<table>
<thead>
<tr>
<th>Treatment组</th>
<th>N</th>
<th>Age (years), mean (SD)</th>
<th>Baseline SAL T score, mean (SD)</th>
<th>Sex (%), female/male</th>
<th>White, n (%)</th>
<th>Brown, n (%)</th>
<th>Black, n (%)</th>
<th>≥18 years, n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placebo</td>
<td>132</td>
<td>35.5 (15.0)</td>
<td>81 (61.4)</td>
<td>112 (85.4)</td>
<td>111 (85.4)</td>
<td>7 (5.3)</td>
<td>0 (0.0)</td>
<td>112 (85.4)</td>
</tr>
<tr>
<td>Ritlecitinib 200/50 mg QD</td>
<td>43</td>
<td>34.4 (13.8)</td>
<td>85 (65.4)</td>
<td>111 (85.4)</td>
<td>100 (78.2)</td>
<td>11 (8.3)</td>
<td>0 (0.0)</td>
<td>111 (85.4)</td>
</tr>
<tr>
<td>Ritlecitinib 50 mg QD</td>
<td>44</td>
<td>32.4 (13.4)</td>
<td>71 (54.6)</td>
<td>71 (54.6)</td>
<td>40 (29.5)</td>
<td>0 (0.0)</td>
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<tr>
<td>Ritlecitinib 30 mg QD</td>
<td>45</td>
<td>33.7 (14.8)</td>
<td>80 (60.6)</td>
<td>80 (60.6)</td>
<td>50 (35.7)</td>
<td>0 (0.0)</td>
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</table>

Treatment groups at baseline. Error bars are 95% CI.

Figure 2. Response based on % improvement from baseline in SALT scores over time

<table>
<thead>
<tr>
<th>SALT improvement category</th>
<th>Placebo (%)</th>
<th>Ritlecitinib 200/50 mg QD (%)</th>
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<tr>
<td>SALT90 (90% improvement in SALT score)</td>
<td>6.2%</td>
<td>20.7%</td>
<td>24.1%</td>
<td>24.8%</td>
</tr>
<tr>
<td>SALT75 (75% improvement in SALT score)</td>
<td>1.5%</td>
<td>5.4%</td>
<td>9.6%</td>
<td>13.2%</td>
</tr>
<tr>
<td>SALT50 (50% improvement in SALT score)</td>
<td>7.3%</td>
<td>14.0%</td>
<td>21.9%</td>
<td>31.2%</td>
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<tr>
<td>SALT25 (25% improvement in SALT score)</td>
<td>18.6%</td>
<td>22.1%</td>
<td>43.4%</td>
<td>53.7%</td>
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<tr>
<td>SALT10 (10% improvement in SALT score)</td>
<td>46.4%</td>
<td>60.6%</td>
<td>75.7%</td>
<td>85.2%</td>
</tr>
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</table>

Patients received placebo and Week 24 and then received ritlecitinib treatment (200/50 mg QD) from Week 24 to Week 48.

Safety

• Over 46 weeks of treatment, the most frequent adverse events (AEs) were non-serious respiratory tract infections, paronychia, and headache.

• Most AEs were mild or moderate in severity, 12 serious AEs were reported, and 24 patients permanently discontinued treatment due to AEs up to Week 44.

• Overall, there were cases of herpes zoster infection, 4 serious infections, 2 malignancies (both breast cancer), and 1 pulmonary embolism; no major adverse cardiovascular events, deaths, or opportunistic infections were reported.

Figure 3. Proportion of patients with SALT score ≥25

CONCLUSIONS

Ritlecitinib treatment led to scalp hair regrowth over 48 weeks of treatment

• At Week 24, up to 43% of patients had a 50% improvement in SALT score; a small proportion of patients had 100% improvement

• Further improvements were seen after Week 24. By Week 44, up to 51% and 14% of patients showed a 50% and 100% improvement in SALT score, respectively.

• Ritlecitinib had an acceptable safety profile over 48 weeks.

• Various SALT improvement categories, including SALT90, SALT75, and SALT50 may help facilitate discussion of treatment progress in patients with AA.

REFERENCES

2. Fig. 1, RAPt presented at ASCP 2017

DISCLOSURES

Co, Sun Pharma Japan Ltd, and Shiseido Co. L.T., F.Z., G.S., R.W., and U.K. are employees of Pfizer and hold stock or stock options in Pfizer.

interests. G.J.S. is a principal clinical trial investigator for Pfizer. M.K.H. declares receiving grant support from ... and consulting fees from ASLAN Pharmaceuticals, Bioniz, Cassiopeia, and Pulse Biosciences. G.M. declares no conflicts of interest.

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