The 4 cases of GPP provide real-world evidence that spesolimab is an effective and safe treatment for GPP flares.

**INTRODUCTION**

- GPP is a rare, chronic, autoinflammatory skin disease characterized by sudden and widespread eruption of sterile pustules, often accompanied by systemic symptoms.
- Severe cases of GPP may be life-threatening if untreated, due to the potential for serious complications, such as sepsis and organ failure.
- Patients with GPP experience a substantial physical, social, and emotional burden from the disease, with a significant impact on QoL.
- Dying out of the IL-36 pathway appears to play a key role in the pathophysiology of GPP. Spesolimab is a first-in-class humanized monoclonal antibody that binds specifically to the L-36 receptor and antagonizes IL-36 signaling.
- Spesolimab is currently the only US FDA-approved treatment for GPP flares in adults, and is also approved for GPP flare treatment in other countries across the world.

**DISCUSSION & CONCLUSION**

- These cases provide real-world evidence that spesolimab is an effective and safe treatment for GPP flares.
- Spesolimab is generally well-tolerated, and provides rapid and effective treatment for GPP flares, as well as improving QoL for patients with GPP.
- Per the label, spesolimab should be administered as a single 900 mg dose by IV infusion over 90 minutes. If flare symptoms persist, an additional IV 900 mg dose may be administered 1 week after the initial dose.
- Lack of familiarity with spesolimab (as a new treatment), and with GPP (as a rare disease), may contribute to logistical barriers (health insurance providers, infusion centers) that may result in delays to patient treatment.
- Thus, there is a need for education of all stakeholders regarding the impact and severity of GPP and the availability of spesolimab as a GPP-specific therapy.
- The recurrent and chronic nature of GPP also suggests that a long-term management strategy is needed.
- Spesolimab has recently been shown to be superior to placebo in GPP flare prevention, significantly reducing the risk and occurrence of GPP flare.
Clinical responses were maintained through 52 weeks in patients who received 14 (0.9) 2.4 182 (12.0) 10 (0.7) 28 (1.8) 1 (0.1) 0.2 (0.1-0.4) 8 3294.3 0.9 (0.6-1.3) 6.2 0.1 (0.0-0.4) 78 (5.1) 112 (21.8) 167 (11.0) 6.1 Patients randomized to deucravacitinib continued treatment through Week 52

### Introduction

- Symptomatic therapy (2TND) is an interventional regime that avoids dosing of corticosteroids, topical treatments that are involved in psoriasis pathogenesis.
- Deucravacitinib is a small molecule, selective, oral JAK3 inhibitor that is approved in the US, EU, and other countries for the treatment of adults with moderate-to-severe plaque psoriasis who are at high risk for systemic therapy.
- Deucravacitinib is uniquely suited to the regulatory domain of 2TND rather than to the category of drugs that address acute disease (IL-12/23 inhibitor mg/kg) (Figure 1), representing the first in a new class of oral molecules.

### Figure 1. Mechanism of action of deucravacitinib

**Legend:** Deucravacitinib = 35A0/1, 35A0/2. JAK3 = Janus kinase 3. TSO = transmembrane serine/threonine kinase 6.

**Notes:**
- **Deucravacitinib**: ATP binds to the ATP-binding pocket of the kinase, causing an allosteric conformational change that prevents ATP from binding and thereby blocks JAK3 enzymatic activity.
- **JAK3** is a non-receptor protein-tyrosine kinase that is involved in the transduction of signals from cytokine receptors.

### Objective

- **To report the safety and efficacy of deucravacitinib for up to 1 year (week 148) through the 3-year POETYK LTE extension study.**

### Methods

#### Study design

- POETYK PSO-1 and PSO-2 were global, 12-week, phase 1b, double-blind trials that evaluated deucravacitinib 6 mg QD and placebo in patients with psoriasis.
- Patients randomized to 4 mg QD deucravacitinib were switched to 6 mg QD after 4 weeks (Figure 2).

#### Randomization and blinded treatment assignment

- Patients were randomized to placebo or active treatment using a 1:1 allocation ratio.

#### Outcome measures

- **Efficacy outcomes:** Achievement of PASI 75, ≥90% reduction from baseline in PASI (PASI 90) at Week 16, PASI 80 at Week 24, PASI 75 at Week 24, and PASI 50 at Week 24.

### Analysis

- **Safety outcomes:** Incidence of adverse events (AEs) and serious AEs (SAEs), laboratory tests, physical examinations, vital signs, and concomitant medications.

### Statistical analysis

- **Analysis:** As-observed and treatment failure rules (TFR) analyses were conducted using the data cut-off date of June 15, 2022 (week 148).

### Results

#### Table 1. Baseline patient demographics and disease characteristics for the overall population

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Deucravacitinib (n = 1519)</th>
<th>Placebo (n = 1508)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>48 (13-70)</td>
<td>48 (13-70)</td>
<td>0.98</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>89 (52-136)</td>
<td>89 (52-136)</td>
<td>0.75</td>
</tr>
<tr>
<td>Height (cm)</td>
<td>171 (132-206)</td>
<td>173 (132-206)</td>
<td>0.21</td>
</tr>
<tr>
<td>BMI</td>
<td>28 (19-44)</td>
<td>28 (19-44)</td>
<td>0.98</td>
</tr>
<tr>
<td>Sex (male)</td>
<td>64 (43%)</td>
<td>64 (43%)</td>
<td>0.98</td>
</tr>
<tr>
<td>Race (White)</td>
<td>57 (83%)</td>
<td>57 (83%)</td>
<td>0.98</td>
</tr>
<tr>
<td>Disease duration (weeks)</td>
<td>167 (98-360)</td>
<td>167 (98-360)</td>
<td>0.98</td>
</tr>
<tr>
<td>Duration of disease (years)</td>
<td>158 (0-33)</td>
<td>158 (0-33)</td>
<td>0.98</td>
</tr>
<tr>
<td>Brief history of psoriasis</td>
<td>21 (5%)</td>
<td>18 (4%)</td>
<td>0.15</td>
</tr>
<tr>
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<td>158 (0-33)</td>
<td>158 (0-33)</td>
<td>0.98</td>
</tr>
<tr>
<td>Duration of disease (months)</td>
<td>158 (0-33)</td>
<td>158 (0-33)</td>
<td>0.98</td>
</tr>
<tr>
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<td>158 (0-33)</td>
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<td>0.98</td>
</tr>
</tbody>
</table>

### Conclusions

- Deucravacitinib 6 mg QD maintained consistent safety and efficacy through 3 years in patients with psoriasis. The study met the predefined key efficacy endpoints (PASI 75 and PASI 90) at Week 16, which were sustained through 52 weeks.

### References

The proportion of patients with no increase in draining tunnels from baseline compared to placebo was 82.9% for SECQ2W and 78.0% for SECQ4W, with no difference between the two dose groups (P = 0.18). In patients with ≥1 draining tunnel at baseline, the mean decrease from baseline in the number of draining tunnels was numerically greater in both secukinumab dosing regimens versus placebo at week 16 (−1.4 ± 0.95, −1.0 ± 0.79 and −0.6 ± 0.84 in the SECQ2W, SECQ4W and placebo arms, respectively), with this decrease being sustained through week 52 in both secukinumab dosing groups (Figure 2A).

At week 16, the mean decrease in number of draining tunnels in patients with at least one draining tunnel at baseline was greater in patients treated with secukinumab than in patients treated with placebo (2.6 ± 3.3 and 1.6 ± 2.8, respectively). This effect was sustained through week 52 in both secukinumab dosing groups (Figure 2B).

Overall, 66.2%, 60.6% and 62.5% of patients in the SECQ2W, SECQ4W and placebo treatment arms, respectively, presented with at least one draining tunnel at baseline (Table 1). The proportion of patients reporting no increase in draining tunnels from baseline was 82.9% for SECQ2W and 78.0% for SECQ4W, with no difference between the two dose groups (P = 0.18). In patients with ≥1 draining tunnel at baseline, the mean decrease from baseline in the number of draining tunnels was numerically greater in both secukinumab dosing regimens versus placebo at week 16 (−1.4 ± 0.95, −1.0 ± 0.79 and −0.6 ± 0.84 in the SECQ2W, SECQ4W and placebo arms, respectively), with this decrease being sustained through week 52 in both secukinumab dosing groups (Figure 2A).

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Long-Term Efficacy of Dupilumab in Adults with Moderate-to-Severe Atopic Dermatitis: Results from a 5-Year Open-Label Extension Trial

Lisa A. Beck1, Robert Bissonnette5, Mette Deleuran3, Takeshi Nakahara4, Ryszard Galus5, Faisal A. Khokhar6, Anna Coleman7, Guy Gherardi8, Jing Xiao6, Robert Dingman6, Christine Xu9, Elena Avetisova6, Ariane Dubost-Brama10, Arsalan Shabbir6

1University of Rochester Medical Center, Rochester, NY, USA; 2Innovaderm Research, Montreal, QC, Canada; 3Aarhus University Hospital, Aarhus, Denmark; 4Kyushu University, Fukuoka, Japan; 5Medical University of Warsaw, Warsaw, Poland; 6Regeneron Pharmaceuticals Inc., Tarrytown, NY, USA; 7Regeneron Pharmaceuticals Dublin, Ireland; 8Sanofi, Reading, UK; 9Sanofi, Bridgewater, NJ, USA; 10Sanofi, Chilly-Mazarin, France

INTRODUCTION

- Topical therapies often cannot sufficiently control moderate-to-severe atopic dermatitis (AD), a chronic inflammatory skin disease
- Systemic immunosuppressants are not recommended for the long-term treatment of moderate-to-severe AD due to safety concerns
- Data from an open-label extension study (OLE; NCT01949311) previously demonstrated acceptable safety and sustained efficacy of dupilumab in adult patients up to 204 weeks (approximately 4 years)

OBJECTIVE

- To assess the long-term efficacy and safety of dupilumab in adult patients with moderate-to-severe AD up to 5 years (the end of this OLE study)

METHODS

- LIBERTY AD OLE (NCT01949311) was a phase 3, multicenter OLE trial with a duration of up to 5 years administering dupilumab 300 mg weekly (qw) to adults with moderate-to-severe AD who previously participated in dupilumab clinical trials (parent studies)
- 226 patients transitioned to 300 mg every 2 weeks (q2w) to align with approved dosage
- Concomitant treatments for AD were permitted, including topical corticosteroids (TCS) and topical calcineurin inhibitors
- This analysis examined the overall population treated for up to 5 years, at the end of this OLE; data are presented as observed
- Because the OLE trial lacked a control arm, LIBERTY AD CHRONOS (NCT02260986) 52-week safety results for adults with moderate-to-severe AD, receiving dupilumab 300 mg qw plus TCS were provided as a comparison

RESULTS

- Baseline demographics and disease characteristics
  - 60.2% of the 2,677 patients were male and 72.3% were White
  - Mean (standard deviation, SD) age of patients was 39.2 (13.4) years and duration of AD was 29.9 (14.8) years
  - At parent study baseline mean (SD) Eczema Area and Severity Index (EASI) and Peak Pruritus Numerical Rating Scale (PP-NRS) scores were 32.8 (13.9) and 7.1 (1.9), respectively
  - OLE baseline mean (SD) EASI and PP-NRS scores were 16.4 (14.6) and 5.0 (2.5), respectively

CONCLUSIONS

- In this long-term (5 year/260 week) open-label study, dupilumab demonstrated continued efficacy substantiated by sustained improvement of AD signs and symptoms (including skin lesions and pruritus) in adult patients with moderate-to-severe AD
- The most common reason for study withdrawals during the OLE was dupilumab approval and
- The safety profile was acceptable and consistent with the known safety profile observed in previous dupilumab placebo-controlled studies

Acknowledgments and funding sources: Research sponsored by Sanofi and Regeneron Pharmaceuticals Inc. ClinicalTrials.gov Identifiers: NCT01949311, NCT02260986. Medical writing/editorial assistance was provided by Jamil Church, PhD, of Excerpta Medica, and was funded by Sanofi and Regeneron Pharmaceuticals Inc., according to the Good Publication Practice guidelines.


Presented at the SDPA 21st Annual Fall Dermatology Conference; Nashville, Tennessee, USA; October 25–29, 2023. Data included in this post were originally presented at the 9th Annual Revolutionizing Atopic Dermatitis (RAD) Conference; April 29–May 1, 2023.
Safety of Long-Term Dupilumab Treatment in Adults with Moderate-to-Severe Atopic Dermatitis: Results from a 5-year Open-Label Extension Trial

Lisa A. Beck1, Robert Bissonnette2, Mette Deleuran3, Takeshi Nakahara4, Ryszard Galus5, Faisal A. Khokhar6, Anna Coleman7, Guy Gherardi8, Jing Xiao9, Robert Dingman10, Christine Xu10, Elena Averittova4, Ariane Dubost-Brama10, Arsalan Shabbir10

1University of Rochester Medical Center, Rochester, NY, USA; 2Innovaderm Research, Montreal, QC, Canada; 3Aarhus University Hospital, Aarhus, Denmark; 4Kyushu University, Fukuoka, Japan; 5Medical University of Warsaw, Warsaw, Poland; 6Regeneron Pharmaceuticals Inc., Tarrytown, NY, USA; 7Sanofi, Reading, UK; 8Sanofi, Bridgewater, NJ, USA; 9Sanofi, Chilly-Mazarin, France

INTRODUCTION

• Atopic dermatitis (AD) is a chronic inflammatory skin disease requiring long-term management; however, sustained AD treatment with systemic immunosuppressants is not recommended due to safety concerns.
• Data from an open-label extension study (OLE; NCT01949311) previously demonstrated acceptable safety in adult patients up to 204 weeks (approximately 4 years).

RESULTS

• Baseline demographics and disease characteristics in the OLE study:
  – 60.2% of the 2,677 patients were male and 72.3% were White
  – Mean standard deviation, SD, age of patients was 39.2 (13.4) years and duration of AD was 29.9 (14.8) years
  – Mean (SD) Eczema Area and Severity Index, Investigator’s Global Assessment, and Proportional Numerical Rating Scale scores were 16.4 (14.6), 2.7 (1.0), and 5.6 (2.5), respectively.

Table 1. Patient disposition

<table>
<thead>
<tr>
<th>Group</th>
<th>Total n=2,677 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients who completed up to:</td>
<td></td>
</tr>
<tr>
<td>Week 52</td>
<td>2,307 (82.4)</td>
</tr>
<tr>
<td>Week 100</td>
<td>1,065 (30.8)</td>
</tr>
<tr>
<td>Week 162</td>
<td>537 (20.0)</td>
</tr>
<tr>
<td>Week 172</td>
<td>362 (13.5)</td>
</tr>
<tr>
<td>Week 196</td>
<td>353 (13.2)</td>
</tr>
<tr>
<td>Week 220</td>
<td>352 (13.3)</td>
</tr>
<tr>
<td>Week 244</td>
<td>334 (12.5)</td>
</tr>
<tr>
<td>Week 263</td>
<td>334 (12.5)</td>
</tr>
<tr>
<td>Patients who completed study</td>
<td>1,380 (51.6)</td>
</tr>
<tr>
<td>Patients withdrawn from study</td>
<td>575 (21.6)</td>
</tr>
<tr>
<td>Adverse event</td>
<td>107 (4.0)</td>
</tr>
<tr>
<td>Lost to follow-up</td>
<td>73 (2.7)</td>
</tr>
<tr>
<td>Lack of efficacy</td>
<td>50 (1.8)</td>
</tr>
<tr>
<td>Protocol deviation</td>
<td>54 (2.0)</td>
</tr>
<tr>
<td>Premature completion</td>
<td>52 (1.9)</td>
</tr>
<tr>
<td>Physician decision</td>
<td>9 (0.3)</td>
</tr>
</tbody>
</table>

• No specific pattern was observed for incidence of SAE or SAE related to treatment. Includes 1 treatment related SAE of (PT) Serum sickness (also listed as an ADR in the USPI). This SAE was associated with an elevated ADA titer following the second dose of dupilumab 300 mg qw; study drug was permanently discontinued and the patient recovered.

OBJECTIVE

• To assess the long-term safety of dupilumab administered in adult patients with AD up to 5 years (the end of this OLE study).

METHODS

• LIBERTY AD OLE (NCT01949311) was a phase 3, multicenter OLE trial with a duration of up to 5 years administering dupilumab 300 mg weekly (qw) to adults with moderate-to-severe AD who previously participated in dupilumab clinical trials (parent studies).
• 226 patients transitioned to 300 mg every 2 weeks (q2w) to align with approved dosage.
• Concomitant treatments for AD were permitted, including topical corticosteroids (TCS) and topical calcineurin inhibitors (CNI).
• Data presented include the full safety analysis set at the end of the OLE for the overall study population.
• Because the OLE trial lacked a control arm, LIBERTY AD CHRONOS (NCT02260986) 52-week safety results for adults with moderate-to-severe AD receiving dupilumab 300 mg qw plus TCS, were provided as a comparison.

RESULTS

• Data from the parent studies, including NCT02260986, were combined with data from the OLE to assess safety and tolerability of dupilumab 300 mg qw or q2w over 5 years.
• Overall safety and tolerability were consistent with previous reports, with the most common treatment-related AEs being nasopharyngitis and conjunctivitis.
• The exposure-adjusted incidence rates (nP/100PY) of TEAEs overall were 3.2 events/100 patient years (PY).
• The incidence of conjunctivitis in patients with ≥1 event is based on most severe event. CMQ, customised MedDRA query; nE, number of events; OLE, open-label extension; PT, preferred term; TCS, topical corticosteroids.

Table 2. Safety summary

<table>
<thead>
<tr>
<th>Table 2. Safety summary</th>
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<tbody>
<tr>
<td>OLE, Final data set</td>
</tr>
<tr>
<td>CHRONOS Week 52, Final data set</td>
</tr>
<tr>
<td>-------------------------</td>
</tr>
<tr>
<td>DUPILUMAB 300 mg qw*</td>
</tr>
<tr>
<td>No. of events</td>
</tr>
<tr>
<td>Patients ≥1 event, n (%)</td>
</tr>
<tr>
<td>NTAEs</td>
</tr>
<tr>
<td>SAE*</td>
</tr>
<tr>
<td>SAE related to treatment*</td>
</tr>
<tr>
<td>TEAEs leading to discontinuation*</td>
</tr>
</tbody>
</table>

CONCLUSIONS

• The safety profile observed in this OLE trial up to 5 years is acceptable and consistent with the known safety profile of dupilumab observed in placebo-controlled studies.
• Exposure-adjusted incidence rates (nP/100PY) of TEAEs overall did not increase over time and were lower than previously reported in the 3- and 4-year analyses of this OLE trial and an earlier 52-week placebo-controlled trial.
• In patients with narrow customized MedDRA query conjunctivitis, TEAEs for 95% of patients with at least one event the most severe event was assessed as mild or moderate, >85% of events were reported as recovered/resolved, and the majority of events were not treatment limiting.

Table 3. Analysis of most common TEAEs

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>OLE, Final data set</td>
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Table 4. Assessment of conjunctivitis

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<tr>
<td>OLE, Final data set</td>
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<td>-------------------------</td>
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<td>DUPILUMAB 300 mg qw*</td>
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<tr>
<td>No. of events</td>
</tr>
<tr>
<td>Patients ≥1 event, n (%)</td>
</tr>
<tr>
<td>Moderate</td>
</tr>
<tr>
<td>Severe</td>
</tr>
<tr>
<td>Related to study drug</td>
</tr>
<tr>
<td>Resulting in permanent discontinuation of study drug</td>
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</tbody>
</table>

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Acknowledgments and funding sources: Research sponsored by Sanofi and Regeneron Pharmaceuticals Inc. ClinicalTrial.gov Identifiers: NCT01949311, NCT02260866. Medical writing/clinical trial assistance was provided by Jamie Church, PhD, of Excerpta Medica, and was funded by Sanofi and Regeneron Pharmaceuticals Inc., according to the Good Publication Practice guidelines.

Source: Beck LA − AbbVie, Alkermes, AstraZeneca, Baxevanis*, BMS, Eli Lilly, Incys, LEO Pharma, MSD/Bristol-Myers, Novartis, Pfizer, Merz, Novartis, Norgine, Norgine Pharma, Pfizer, Regeneron Pharmaceuticals Inc., Sanofi, UCB. Writing assistance was provided by Jamie Church, PhD, of Excerpta Medica, and was funded by Sanofi and Regeneron Pharmaceuticals Inc., according to the Good Publication Practice guidelines.

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Presented at the SDPA 21st Annual Fall Dermatology Conference; Nashville, Tennessee, USA; October 25–29, 2023. Data included in this poster were originally presented at the 9th Annual Resolutionizing Atopic Dermatitis (RAD) Conference; April 29–May 1, 2023.
**INTRODUCTION**

- Seborrheic dermatitis (SD) is a chronic inflammatory skin condition that negatively impacts quality of life, particularly in patients with more severe disease.
- Itch is a major complaint among patients with SD.
- Topical treatments include antifungals, steroids, immunomodulators, and dandruff shampoos, but efficacious and safe options are needed, especially those that improve itch.

**METHODS**

- This phase 3, randomized, parallel-group, double-blind, vehicle-controlled trial (NCT04937328) was conducted in patients 19 years old with at least moderate SD affecting scalp and/or non-scalp areas.
- Eligible patients had clinical diagnosis of SD of 24 months duration, Investigator Global Assessment (IGA) score of 3 (at least moderate severity), and affecting ≥50% of the body surface area (BSA, Figure 2).
- Patients were randomized 2:1 to apply once-daily roflumilast foam 0.3% (n=304) or vehicle (n=153) for 8 weeks.
- Secondary efficacy endpoints included Worst Itch Numeric Rating Scale (WI-NRS), which was completed daily by patients and safety and local tolerability were also evaluated.

**RESULTS**

Demographics and baseline characteristics were similar in the treatment groups (Table 1).

Overall, significantly more roflumilast-treated patients than vehicle-treated patients achieved IGA success (79.5% vs. 58.0%, P<0.0001) and IGA status of Clear (50.6% vs. 27.7%, P<0.0001) at Week 8 (Figure 2).

Significantly greater percentages of roflumilast-than vehicle-treated patients had ≥4-week improvement on WI-NRS at Weeks 2 (52.7% vs. 15.5%, P<0.0001), 4 (47.8% vs. 29.1%, P<0.0001), and 8 (62.5% vs. 40.6%, P<0.0001) (Figure 3).

Oral improvement in itch was observed among roflumilast-treated patients as early as 48 hours after the first application (mean percent change from baseline: -27.8% vs. -13.1%, nominal P=0.0024) (Figure 4).

Changes in SD in patients treated with roflumilast foam 0.3% are shown in Figure 5.

**CONCLUSIONS**

- Roflumilast foam 0.3% demonstrated efficacy in improving multiple endpoints, including rapid itch improvement, versus vehicle in patients with SD in a phase 3 trial.
- 80% of patients achieved IGA Success and ≥50% achieved complete clearance by Week 8.
- ≥50% of patients achieved an itch response at Week 8, with significant improvements at the 2- and 4-week assessments.
- Greater improvement in daily itch scores was observed among roflumilast-treated patients as early as 48 hours after first dose.

Local tolerability was highly favorable on investigator- and patient-rated assessments and was consistent with safety profiles in prior trials.

**REFERENCES**


**DISCLOSURES**

1. Arcutis Biotherapeutics, Inc. 2023. All rights reserved. This study was supported by Arcutis Biotherapeutics, Inc. and sponsored by Arcutis Biotherapeutics, Inc. and BioPharm Consulting, LLC, a division of Arcutis Biotherapeutics, Inc.

**Figure 1. Study Design**

- Eligibility: Diagnosis of at least moderate SD (IGA ≥ 3)
- Age ≥ 18
- BSA ≥ 20% SD
- Not breastfed

**Figure 2. Patients Achieving IGA Success and IGA Clear**

- A: >80% of Patients Achieved IGA Success at Week 8
- B: >50% of Patients Achieved IGA of Clear at Week 8

**Figure 3. Percentage of Patients Achieving WI-NRS Success**

- A: >50% of Patients Achieved WI-NRS Success at Week 8

**Figure 4. LS Mean Percent Change from Baseline in WI-NRS Scores**

**Figure 5. Changes in SD in Patients Treated With Roflumilast Foam 0.3%**

- Baseline
- Week 2
- Week 4
- Week 8

**Table 1. Baseline Demographics and Disease Characteristics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Roflumilast Foam 0.3% (n=304)</th>
<th>Vehicle (n=153)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age in years (mean)</td>
<td>43.6 (18.9)</td>
<td>45.8 (10.7)</td>
</tr>
<tr>
<td>Sex</td>
<td>Male (n=158)</td>
<td>Female (n=146)</td>
</tr>
<tr>
<td>Race, n (%):</td>
<td>Asian (40.0)</td>
<td>American Indian or Alaskan Native (2.3)</td>
</tr>
<tr>
<td></td>
<td>Black (31.8)</td>
<td>Other (30.7)</td>
</tr>
<tr>
<td></td>
<td>Native Hawaiian or Other Pacific Islander (6.6)</td>
<td>Other (30.7)</td>
</tr>
<tr>
<td></td>
<td>Other (41.4)</td>
<td>Other (30.7)</td>
</tr>
<tr>
<td>Baseline NRS score, n (%)</td>
<td>22.1 (7.9)</td>
<td>25.5 (7.9)</td>
</tr>
<tr>
<td>BSA, mean % (Std Dev)</td>
<td>62.4 (20.0)</td>
<td>68.4 (22.0)</td>
</tr>
</tbody>
</table>

**Table 2. Overall AEs**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Roflumilast Foam 0.3% (n=304)</th>
<th>Vehicle (n=153)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients with any TEA</td>
<td>249 (82.0)</td>
<td>131 (85.3)</td>
</tr>
<tr>
<td>Patients with treatment-related TEA</td>
<td>12 (4.0)</td>
<td>3 (2.0)</td>
</tr>
<tr>
<td>Patients with treatment-emergent SD</td>
<td>1 (0.3)</td>
<td>0</td>
</tr>
<tr>
<td>Patients who discontinued due to TEA</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Most common TEA (n in any group, preferred term)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ocular reaction</td>
<td>1 (0.3)</td>
<td>0</td>
</tr>
<tr>
<td>Pruritus</td>
<td>3 (1.0)</td>
<td>2 (1.3)</td>
</tr>
<tr>
<td>Application-site pain</td>
<td>1 (0.3)</td>
<td>2 (1.3)</td>
</tr>
<tr>
<td>Itch</td>
<td>10 (3.3)</td>
<td>4 (2.6)</td>
</tr>
<tr>
<td>Soreness</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Table 3. Investigator-Rated Local Tolerability**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Roflumilast Foam 0.3% (n=304)</th>
<th>Vehicle (n=153)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients with any TEA</td>
<td>249 (82.0)</td>
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</tr>
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<td>Patients with treatment-related TEA</td>
<td>12 (4.0)</td>
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<td>1 (0.3)</td>
<td>0</td>
</tr>
<tr>
<td>Patients who discontinued due to TEA</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Most common TEA (n in any group, preferred term)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application-site pain</td>
<td>1 (0.3)</td>
<td>2 (1.3)</td>
</tr>
<tr>
<td>Itch</td>
<td>10 (3.3)</td>
<td>4 (2.6)</td>
</tr>
<tr>
<td>Soreness</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**DISCLOSURES**

1. Arcutis Biotherapeutics, Inc. 2023. All rights reserved. This study was supported by Arcutis Biotherapeutics, Inc. and sponsored by Arcutis Biotherapeutics, Inc. and BioPharm Consulting, LLC, a division of Arcutis Biotherapeutics, Inc. Additional disclosures provided on request.

**ACKNOWLEDGEMENTS**

- This study was supported by Arcutis Biotherapeutics, Inc.
- The authors thank the clinical research organizations who supported the trial and the patients and their families who participated in the trial.
- We are grateful to the study participants, their families, and the researchers who contributed to the study.

**Presented at the 21st Annual Society of Dermatology Physicians Assistants Fall Conference (SDPA Fall), October 25-29, 2023, Nashville, TN, USA.**
Safety and Tolerability of Fixed-Dose Clindamycin Phosphate 1.2%/Adapalene 0.15%/Benzoyl Peroxide 3.1% Gel in Black Participants With Acne

Valerie Callender, MD;1,4 Fran E Cook-Bolden, MD;1,4 Leon H Kirck, MD;1,4 Jonathan S Weiss, MD;1,4 Andrew F Alexis, MD;1 Michael Gold, MD;1,4 Emil A Tanghetti, MD;1 Hillary Baldwin, MD;1,4,Linda Stein Gold, MD;1,4 Jeffrey L Sugarman, MD, PhD1

1Columbia Dermatology, New York, NY; 2Mount Sinai, New York, NY; 3Westside Dermatology, Nashville, TN; 4Callender Dermatology and Cosmetic Center, Glenn Dale, MD; 5Robert Wood Johnson University Hospital, New Brunswick, NJ; 6Henry Ford Hospital, Detroit, MI; 7University of California, San Francisco, CA; 8Free Press Skin Care, PLLC, DermInsight, PLLC, and Skin Science, PLLC, Louisville, KY; 9Georgia Dermatology Partners, Hixville, GA; 10Genentech Research Center, Inc., South San Francisco, CA; 11Center for Dermatology and Laser Surgery, Sacramento, CA

OBJECTIVE
- The objective of this pooled, post hoc analysis was to evaluate the safety and tolerability of IDP-126 gel in Black individuals with moderate-to-severe acne.

METHODS
- Two identical phase 3, double-blind, randomized, 12-week studies (NCT04064369/NCT04146452) enrolled participants aged ≥19 years with moderate-to-severe acne (score of 3 or 4 on the Evaluator’s Global Severity Score).
- Participants were randomized (2:1) to receive once-daily IDP-126 gel or vehicle gel.
- A three-pronged approach to acne treatment—combining an antibiotic, antibacterial agent, and retinoid in a single formulation—has been investigated as a means to provide greater efficacy than single-drug treatments while potentially reducing antibiotic resistance.
- In children, adolescents, and adults with moderate-to-severe acne, IDP-126 led to significant reductions in acne from baseline to week 12 versus vehicle gel and its component dyads, with over half of IDP-126 participants achieving treatment success.

RESULTS
- Treatment-related TEAEs were mild to moderate in Black participants.
- Rates of hyperpigmentation were 4/14 (28.6%) for Black participants treated with IDP-126 compared with 2/14 (14.3%) for vehicle gel.
Patient and Healthcare Provider Perspectives on the Disease Burden of Seborrheic Dermatitis in the United States: Results From a National Survey

INTRODUCTION

• Seborrheic dermatitis (SD) is a common chronic inflammatory skin disease with a worldwide prevalence of up to 50%.

• While SD is common, the physical and emotional burdens of SD have not been well characterized.

• The authors developed an online survey conducted by the Harris Poll, to gain deeper insight into experiences and attitudes toward the disease among patients with and dermatology healthcare providers (HCPs).

• This poster reports patient and HCP perspectives on the physical and emotional burden of SD.

METHODS

• The survey was conducted online from December 2021 through January 2022 among US adults diagnosed with SD by an HCP.

• Results for age, gender, education, race/ethnicity, region, household size, and marital status were weighted, when necessary, to align the data with actual proportions in the population.

• A propensity score variable was also included to adjust for respondents' propensity to be online.

• The HCP survey was conducted online from December 2021 through January 2022 among HCPs specializing in dermatology (including dermatologists, nurse practitioners [NPs], and physician assistants [PAs]) who see ≥1 patient per week and ≥1 patient with SD per year.

• For dermatologists, results for years in practice, gender, and region were weighted, when necessary, to align the data with actual proportions in the population.

• For NPs/PAs, race data were not weighted and are therefore only representative of the individuals who completed the survey.

RESULTS

• The average age of patients in the survey was 40 years and 55% were male (Figure 1).

• The majority of patients (71%) reported their symptoms as being moderate in severity.

• HCPs may be underestimating the percentage of patients experiencing moderate symptoms.

• Patients reported living with SD for an average of 3.6 years, with 20% waiting ≥5 years before seeking SD treatment (Figure 3).

• Almost half of patients reported that SD negatively impacts their emotional health (49%), self-esteem (42%) and well-being as "a lot/great deal." However, among the 85% of HCPs who assessed quality of life (n=511), only 32% said living with SD has a "a lot/great deal" of negative impact on patients' lives.

• Patients with SD reported significant mental health impacts (Figure 4).

• HCPs agreed that SD symptoms make patients feel anxiety (79%), depression (70%), and anxiety about interacting with other people (84%).

• 7% of patients reported anxiety, 12% depression, and 69% anxiety about interacting with other people.

• 67% of the HCPs were physicians, 24% were PAs, and 10% were NPs (Figure 2).

• The majority of patients (77%) agreed with the statement "My seborrheic dermatitis symptoms make me anxious" (Figure 5).

• 90% of patients said living with SD negatively impacts "a lot/great deal" of their day-to-day life (Figure 6).

• SD has a significant negative impact on patients' social life (interactions with friends, family, and neighbors; 91%) and personal relationships (68%).

• 70% of patients said SD can be isolating and other people around them do not understand the negative impact their SD symptoms have on their daily life.

• 86% of HCPs agreed that others do not understand the negative impact of SD on patients' lives.

• 82% of patients agreed that they feel embarrassed when people comment on their SD symptoms (Figure 5).

• 77% of patients agreed with the statement "My seborrheic dermatitis makes people think that I have poor hygiene" (Figure 5).

• HCPs agreed that patients feel embarrassed when someone comments on their SD symptoms (97%) and that patients' SD symptoms make other people think they have poor hygiene (88%).

• 73% of patients stated living with SD negatively impacts their ability to do their job, specifically agreeing that (Figure 8).

• They would be further along in their career if they didn't have SD (61%).

• SD symptoms made them less confident at work (59%).

• SD symptoms made them less likely to want to interact with people at work (58%).

• SD made them choose a different career path than they originally planned (47%).

• 47% of patients reported ever missing work due to SD symptoms.

CONCLUSIONS

• While most patients described their SD as moderate to severe and having a significant impact on their quality of life, HCPs underemphasized the patient-reported severity and level of impact on patients' quality of life.

• Patients' social life and personal relationships suffer due to SD and most patients said others do not understand the negative impact of SD on their life.

• Patients reported SD causes a considerable impact on their day-to-day life, including physical appearance, hygiene routine, clothing choices, and sleep.

• Most patients said SD negatively impacts their self-esteem and multiple aspects of their mental health, causing anxiety and depression.

• The majority of patients reported that SD impairs their ability to do their job, with almost half of patients having ever missed work due to SD symptoms.

• These insights highlight the immense patient burden associated with SD, impacting patients' emotional, social, and work lives.

REFERENCE


ACKNOWLEDGEMENTS

• This study was supported by Arcutis Biotherapeutics, Inc.

• Thank you to the Investigators and their staff for their participation in this trial.

• We are grateful to the study participants and their families for their time and commitment.

• Writing support was provided by Lauren Roman, Ph.D., Allergan Biopharm Consulting LLC, and funded by Arcutis Biotherapeutics, Inc.

DISCLOSURES

• The principal investigator and all of the authors have nothing to disclose.

• The research was conducted on behalf of Arcutis Biotherapeutics, Inc. and received the Exodus Biopharma funding and/or investigator support from the principal investigator (Zirwas, M.) and other investigators associated with Arcutis Biotherapeutics, Inc.
Challenges in diagnosing and managing generalized pustular psoriasis: Learnings from 4 cases in clinical practice

Ellie Christianson1, Jayme Heim2, Leigh Ann Pansch3, Henry LV
Brookside Dermatology Associates, Bridgeport, CT, USA; 2West Michigan Dermatology, Grandville, MI, USA; 3DOCS Dermatology, Cincinnati, OH, USA; *Wel Derm Center, Brane, NY, USA

GPP is difficult to diagnose given its rarity and treatment is often delayed. Significant physical and psychosocial burdens are associated with GPP, which severely impact patients’ quality of life

AIM
To examine 4 patient case reports that highlight the difficulties experienced by patients with GPP in receiving an accurate diagnosis and accessing appropriate care

INTRODUCTION
• GPP is a rare, chronic, and potentially life-threatening inflammatory skin disease characterized by recurrent flares of widespread sterile pustules and erythematosus skin. It is often accompanied by systemic symptoms including fever, pain in skin lesions, arthritis, arthralgia, malaise, fatigue, and asthenia
• The clinical course of GPP is highly variable and may be relapsing-remitting or persistent. Severe flares can be serious medical emergencies, with patient deaths attributed to sepsis or septic shock from flare complications1,2
• Prior to the approval of etanercept for the treatment of GPP flares in September 2022, available treatment options for GPP were limited to the off-label use of agents used to treat plaque psoriasis
• Four case histories of patients with GPP are summarized below

Disease Characteristics

<table>
<thead>
<tr>
<th>Case report</th>
<th>Time to diagnosis</th>
<th>Chronic and GPP Treatment</th>
<th>Comorbidities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1</td>
<td>4 months</td>
<td>Topical antifungal, topical hydrocortisone and clobetasol, oral succinylsulfathiazole</td>
<td>Autimmune</td>
</tr>
<tr>
<td>Case 2</td>
<td>8 months</td>
<td>Oral prednisone, oral hydroxychloroquine, oral methotrexate, oral sulfasalazine, oral cyclosporine, oral acitretin, oral guselkumab, oral brodalumab, oral infliximab, oral cyclosporine, oral acitretin, oral guselkumab, oral brodalumab, oral infliximab</td>
<td>Plaque psoriasis, calcinosis cutis, cryoglobulinemia</td>
</tr>
<tr>
<td>Case 3</td>
<td>Unknown</td>
<td>Topical antifungal, topical hydrocortisone and clobetasol, oral succinylsulfathiazole</td>
<td>Atopic dermatitis, asthma, diabetes</td>
</tr>
<tr>
<td>Case 4</td>
<td>3 years</td>
<td>Oral prednisone, oral hydroxychloroquine, oral cyclosporine, oral acitretin, oral guselkumab, oral brodalumab, oral infliximab, oral cyclosporine, oral acitretin, oral guselkumab, oral brodalumab, oral infliximab</td>
<td>Plaque psoriasis, hypertension, anxiety</td>
</tr>
</tbody>
</table>

CASE PRESENTATIONS

Case 1
A 14-year-old White male with autism and history of recurrent flares but no family history of GPP
An initial rash on the patient’s feet spread across his entire body over several months. The patient was initially referred to a podiatrist, and later to a dermatologist, as the rash continued to spread throughout his body, including maceration, thickening, and inflammation in his nails.
• Diagnosing GPP was difficult, as he had no family history and was healthy; consequently, the patient did not receive appropriate treatment until an accurate diagnosis was made
• Given the patient also had autism, personalized care was provided to ensure that he was medically comfortable in his surroundings and among medical professionals

Case 2
A 55-year-old White female with a 20-year history of relapsing-remitting plaque psoriasis
The patient developed a pustular rash and systemic symptoms after taking oral corticosteroids
• The severity of the rash resulted in the patient developing mobility issues and taking disability leave from work
• A punch biopsy of 1 of the newer plaques on the abdomen revealed pustular psoriasiform dermatitis compatible with pustular psoriasis, and was consistent with a diagnosis of GPP
• Three risk factors for GPP flare were identified: 1) an upper respiratory tract infection; 2) a history of heavy smoking; 3) the nonoperative withdrawal of systemic corticosteroids

Case 3
A 33-year-old Hispanic male with a family history of plaque psoriasis
She was referred to dermatology services in 2019. 1 month after hospitalization for her first GPP flare
• Managing her GPP over the next 7 years was challenging due to physical pain and emotional exhaustion from not having adequate treatment; the patient also experienced depression and anxiety
• Numerous therapeutic agents, including biologics, failed to control the patient’s GPP symptoms
• The patient continued to be hospitalized for flares
• During these hospitalizations, 20-40% of her body surface area was covered with painful pustules, and was accompanied by erythroderma, malaise, and fever

Case 4
A 59-year-old Hispanic male with a 1-year history of mild plaque psoriasis affecting his hands, elbows, and scalp
• The patient did not respond to systemic treatments, including certolizumab pegol and leflunomide, and this was attributed to be a drug-induced reaction given the patient developed urticaria, intense erythema, and swelling of the neck, trunk, and extremities
• A skin biopsy conducted in October 2020 showed parakeratosis, and a provisional diagnosis of pustular psoriasis was made
• However, the patient was lost to follow-up until July 2022 due to the COVID-19 pandemic. The patient was hospitalized in June and August 2022, at which time ranikizumab treatment was initiated

DISCUSSION
• These case studies demonstrate the burden of illness in GPP extending beyond the physical disease burden
• The rare and variable nature of GPP makes diagnosing and managing the disease challenging
• The lack of information regarding triggering factors that can lead to GPP flares presents an unmet need
• Patients require appropriate social and emotional support as a complement to their medical care

CONCLUSION
When managing GPP, a multidisciplinary approach is recommended to ensure that patients receive effective medical care as well as appropriate social and emotional support
• The potential severity and consequence of untreated GPP necessitates a prompt diagnosis, initiation of effective treatment, and regular follow-up, as illustrated by the cases presented in this report

References

GPP flares can be triggered by a variety of factors and can impede patients’ day-to-day functionality

The psychological and social burdens of GPP should be considered by healthcare providers. Failing several treatments also adds significant clinical burden on patients and healthcare providers

GPP can be mistaken for other dermatological conditions or drug-induced reactions, and this may delay timely treatment

Disclosures & Acknowledgments
All authors disclosed no potential conflicts of interest. This study was funded by Boehringer Ingelheim Pharmaceuticals, Inc. for this service. BIPI provided medical writing support by a medical writer and edit for medical and scientific accuracy, as well as intellectual property considerations. LEO Pharma, Pfizer, Sun Pharma, and UCB Pharma.

Appendix A: Case Presentations

Case 1
- The potential severity and consequence of untreated GPP
- Patients require appropriate social and emotional support as a complement to their medical care

Case 2
- The rare and variable nature of GPP makes diagnosing and managing the disease challenging
- The lack of information regarding triggering factors that can lead to GPP flares presents an unmet need

Case 3
- The psychological and social burdens of GPP should be considered by healthcare providers. Failing several treatments also adds significant clinical burden on patients and healthcare providers

Case 4
- GPP can be mistaken for other dermatological conditions or drug-induced reactions, and this may delay timely treatment
Sustained efficacy and safety of bimekizumab in patients with active psoriatic arthritis and prior inadequate response to tumor necrosis factor inhibitors: Results from the Phase 3 BE COMPLETE study and its open-label extension up to 1 year

Laura C. Coates,1 Robert B.M. Landewé,2 Iain B. McInnes,3 Philip J. Mease,4 Christopher T. Ritchlin,5 Yoshia Tanaka,6 Akihiko Ashina,7 Frank Behrens,8 Dafna D. Gladman,9 Laure Gosses,10 Alice B. Gottlieb,11 Richard B. Warren,12,13 Barbara Ink,14 Rajan Bajracharya,14 Jason Coarse,15 Joseph F. Merola16,17

Objective
To assess the long-term efficacy and safety of bimekizumab (BKZ) treatment up to 52 weeks in patients with active psoriatic arthritis (PsA) and prior inadequate response or intolerance to tumor necrosis factor (TNF)-inhibitors (TNFI-IB).

Introduction
• BKZ is a humanized monoclonal IgG2 antibody that selectively inhibits interleukin-23 (IL-23) in addition to IL-12.
• BKZ has shown superior efficacy to 16 weeks versus placebo (PBO) and tolerability in patients with active PsA in two phase 3 studies, BE OPTIMAL (blinded to biologic – disease-modifying antirheumatic drugs (DMARDs)) and BE COMPLETE (prior inadequate response or intolerance to TNFI-IB).
• The efficacy and tolerability of BKZ at 52 weeks was also demonstrated in BE OPTIMAL.
• Patients with PsA and TNFI-IB typically exhibit reduced treatment responses compared with biologic-naïve patients,14 so identifying treatments that effectively manage the long-term needs of these patients is important.

Methods
• BE COMPLETE (NCT03035656) included a 16-week double-blind, PBO-controlled period.
• Patients were randomized 2:1 to subcutaneous BKZ 160 mg Q4W or PBO every 4 weeks (Q4W).
• Patients who completed Week 16 were eligible for entry in an open-label extension (OLE) study.
• TEAE: Treatment-emergent adverse event; MI: Multiple imputation; OLE: Open-label extension.

Results
• 338/450 (75.1%) patients completed Week 16, 377 (86.8%) completed Week 52.
• Baseline characteristics were comparable between groups (Table 1).
• Improvements in joint and skin responses with BKZ treatment at Week 16 were sustained to Week 52 (Figure 2).
• Patients who switched to BKZ at Week 52 demonstrated improvements in efficacy responses to Week 52 (Figure 2 and Table 2).

Conclusions
In patients with PsA and prior TNFI-IB, bimekizumab treatment demonstrated sustained improvements across joints and skin from Week 16 to Week 52. Patients who switched to bimekizumab at Week 16 also displayed meaningful improvements in efficacy responses at Week 52. The safety profile was consistent with previous reports.11,12

Table 1 Baseline patient demographics and disease characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Placebo</th>
<th>BKZ 160 mg Q4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>62.1 (8.7)</td>
<td>62.3 (9.7)</td>
</tr>
<tr>
<td>Male (%)</td>
<td>58 (76.3)</td>
<td>67 (81.7)</td>
</tr>
<tr>
<td>BMI</td>
<td>26.5 (5.5)</td>
<td>26.3 (5.5)</td>
</tr>
<tr>
<td>HAQ-DI score</td>
<td>0.8 (0.7)</td>
<td>0.8 (0.7)</td>
</tr>
<tr>
<td>PASI score</td>
<td>13.5 (6.7)</td>
<td>13.7 (7.4)</td>
</tr>
<tr>
<td>TJC (of 68 joints)</td>
<td>23.9 (9.7)</td>
<td>23.6 (9.9)</td>
</tr>
<tr>
<td>DAS28_16</td>
<td>5.3 (1.6)</td>
<td>5.3 (1.6)</td>
</tr>
<tr>
<td>LDAI score</td>
<td>13.7 (9.7)</td>
<td>13.7 (9.7)</td>
</tr>
<tr>
<td>SDAI</td>
<td>34.2 (23.6)</td>
<td>34.0 (23.8)</td>
</tr>
<tr>
<td>CDAI</td>
<td>74.3 (68.1)</td>
<td>74.1 (68.2)</td>
</tr>
<tr>
<td>MDAI</td>
<td>15.0 (11.2)</td>
<td>15.0 (11.2)</td>
</tr>
</tbody>
</table>

Figure 1 BE COMPLETE and BE VITAL study design

Figure 2 ACR, PASI and MDA response rates over time to Week 52 (NRI and OC)

Table 2 Additional efficacy endpoints at Week 16 and Week 52 (NRI)

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Placebo</th>
<th>BKZ 160 mg Q4W</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.D. [OC]</td>
<td>15.3 [25.2]</td>
<td>24.7 [20.5]</td>
</tr>
<tr>
<td>25% PASI reduction response</td>
<td>23 (26.9)</td>
<td>37 (44.0)</td>
</tr>
<tr>
<td>50% PASI reduction response</td>
<td>7 (8.2)</td>
<td>15 (18.1)</td>
</tr>
<tr>
<td>≥75% PASI reduction response</td>
<td>0 (0.0)</td>
<td>2 (2.4)</td>
</tr>
</tbody>
</table>

Figure 3 Safety to Week 16 and Week 52

- n=267
- Week 16
- Week 52
- *p<0.01
- **p<0.001

Sustained efficacy and safety of bimekizumab in patients with active psoriatic arthritis and prior inadequate response to tumor necrosis factor inhibitors: Results from the Phase 3 BE COMPLETE study and its open-label extension up to 1 year


Presented at SDPA Fall 2023 | October 25–29 | Nashville, TN

Previously presented at Fall Clinical 2023 | October 19–22 | Las Vegas, NV

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Comparison of Cutaneous Irritation With Repeated Application of Tazarotene 0.045% Lotion, Adapalene 0.3% Gel, and Trifarotene 0.005% Cream

Zoe D. Draelos, MD; Patricia Farris, MD; Hillary Baldwin, MD1; Emil A. Tanghetti, MD

1Dermatology Consulting Services, High Point, NC; Tulane University School of Medicine, Department of Dermatology, New Orleans, LA; The Acne Treatment and Research Center, Brooklyn, NY; Robert Wood Johnson University, New Brunswick, NJ; Center for Dermatology and Laser Surgery, Sacramento, CA

SYNOPSIS

Healthy adults (18 years) with Fitzpatrick skin types I–II and normal upper back skin were enrolled in two identical 12-day modified cumulative irritation patch tests.

In each study, two patches loaded with active ingredients and one control patch were applied to participants’ upper back in a random, double-blind fashion.

In Study 1, active patches were loaded with 0.1 cc of adapalene 0.3% gel or tazarotene 0.045% lotion; in Study 2, active patches were loaded with 0.1 cc of tazarotene 0.005% cream.

Results:

Study 1: Adapalene 0.3% Gel vs Tazarotene 0.045% Lotion

20 White adults (22–49 years; 95% female; 90% White, 10% African American) were enrolled and completed this study.

- Dermal Effects mean scores with adapalene cream were significantly greater than with tazarotene gel (highest mean scores: 0.50 and 0.80, respectively).
- No irritation was observed at the control patch site at any study visit.

Study 2: Trifarotene 0.005% Cream vs Tazarotene 0.045% Lotion

20 adults (22–74 years; 90% female; 90% White, 10% African American) were enrolled and completed this study.

- Differences in Dermal Effects mean scores between drugs were not statistically significant at any assessment, though there was slightly less irritation overall with tazarotene lotion than adapalene gel (highest mean scores: 0.50 and 0.80, respectively).
- Other Effects mean scores were negligibly (≤0.05) with both drugs.

No irritation was observed at the control patch site at any study visit.

CONCLUSIONS

- In a modified cumulative irritation study, tazarotene 0.045% lotion was significantly less irritating than trifarotene 0.005% cream.

- Trifarotene 0.045% cream was numerically less irritating than adapalene 0.3% gel, one of the best-tolerated topical retinoids.

- Tazarotene 0.045% lotion allows for simultaneous, uniform, and rapid delivery of hydrating ingredients along with less than half the concentration of tazarotene versus other commercially available 0.1% formulations.

- The lower retinoid concentration combined with moisturizing/ hydrating ingredients (sorbitol, light mineral oil, diethyl sebacate, water) in a proprietary polymeric vehicle may help minimize instances of retinoid-induced irritation.

REFERENCES


AUTHOR DISCLOSURES

Zoe Draelos received funding from Ortho Dermatologics to conduct this research presented in this paper. Patricia Farr serves as an advisor, speaker or consultant to Beaucare, La Roche Posay, Neutrogena, Neocutis, Paul B Jones, and Sol-Gel. Hillary Baldwin has served as an advisor, investigator, and on speakers’ bureaus for Almirall, Cassiopea, Foamix, Galderma, Ortho Dermatologics, Sol-Gel, and Sun Pharma. Emil Tanghetti has served as speaker for Novartis, Ortho Dermatologics, Sun Pharma, Lilly, Galderma, Almirall, and Men’s Dermatology. Zoe Draelos received funding from Ortho Dermatologics to conduct this research presented in this paper. Patent application filed for topical retinoid delivery system.

METHODS

To compare the tolerability of tazarotene 0.045% lotion with adapalene 0.3% gel and trifarotene 0.005% cream.

FIGURE 1. Study Design

RESULTS

Study 1: Adapalene 0.3% Gel vs Tazarotene 0.045% Lotion

- 20 White adults (22–49 years; 95% female; 90% White, 10% African American) were enrolled and completed this study.
- Dermal Effects mean scores with adapalene cream were significantly greater than with tazarotene gel (highest mean scores: 0.50 and 0.80, respectively).
- No irritation was observed at the control patch site at any study visit.

Study 2: Trifarotene 0.005% Cream vs Tazarotene 0.045% Lotion

- 20 adults (22–74 years; 90% female; 90% White, 10% African American) were enrolled and completed this study.
- Differences in Dermal Effects mean scores between drugs were not statistically significant at any assessment, though there was slightly less irritation overall with tazarotene lotion than adapalene gel (highest mean scores: 0.50 and 0.80, respectively).
- Other Effects mean scores were negligibly (≤0.05) with both drugs.
- No irritation was observed at the control patch site at any study visit.

CONCLUSIONS

- In a modified cumulative irritation study, tazarotene 0.045% lotion was significantly less irritating than trifarotene 0.005% cream.

- Trifarotene 0.045% cream was numerically less irritating than adapalene 0.3% gel, one of the best-tolerated topical retinoids.

- Tazarotene 0.045% lotion allows for simultaneous, uniform, and rapid delivery of hydrating ingredients along with less than half the concentration of tazarotene versus other commercially available 0.1% formulations.

- The lower retinoid concentration combined with moisturizing/hydrating ingredients (sorbitol, light mineral oil, diethyl sebacate, water) in a proprietary polymeric vehicle may help minimize instances of retinoid-induced irritation.

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A Phase 3 Study of Ruxolitinib Cream in Children Aged 2–<12 Years with Atopic Dermatitis (TRuE-AD3): 8-Week Analysis

Background

Ruxolitinib cream is a selective Janus kinase (JAK) 1/JAK2 inhibitor, approved in the United States for treatment of moderate to severe atopic dermatitis (AD) in adolescents and adults based on results from the TRuE-cream (NCT02759794) and TRuE-AD2 (NCT02759793) studies.

In a pilot pharmacokinetic (PK)/safety study (NCT03257644) in patients aged 2–<18 years with AD, 1.5% ruxolitinib cream was well tolerated with low mean plasma ruxolitinib concentration (C_{ss}) and no effect on biomarkers of bone marrow production of blood cells.

Methods

Patients and Study Design

The study design is shown in Figure 1: [see http://clinicaltrials.gov/ct2/show/NCT06213849 for a full summary of this study].

The long-term safety 2.52 period is ongoing.

Table 1. Patient Demographics and Baseline Clinical Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Vehicle (n=62)</th>
<th>0.75% Ruxolitinib Cream (n=122)</th>
<th>1.5% Ruxolitinib Cream (n=125)</th>
<th>Total (n=310)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td>2.0(0.8)</td>
<td>2.1(0.8)</td>
<td>2.0(0.8)</td>
</tr>
<tr>
<td>Sex, male</td>
<td></td>
<td>0.44</td>
<td>0.45</td>
<td>0.44</td>
</tr>
<tr>
<td><strong>Eczema Area</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSA (%)</td>
<td></td>
<td>0.75</td>
<td>2.0</td>
<td>0.92</td>
</tr>
<tr>
<td><strong>Eczema Severity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IGA-TS</td>
<td></td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
</tr>
<tr>
<td><strong>Laboratory Values</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Plasma C_{ss}</td>
<td>0.75%</td>
<td>37.6(6.0)</td>
<td>35.9(5.9)</td>
<td>36.3(5.9)</td>
</tr>
<tr>
<td>Mean Plasma C_{ss}</td>
<td>1.5%</td>
<td>68.5(10.7)</td>
<td>68.5(10.7)</td>
<td>68.5(10.7)</td>
</tr>
</tbody>
</table>

Endpoints

The primary endpoint was the percentage of patients achieving Investigator’s Global Assessment (IGA)-TS score of 0 or 1 with ≥50% improvement from baseline at Week 8. Secondary endpoints included:

- Percentage of patients achieving ≥75% improvement in Eczema Area and Severity Index (EASI75) through Week 8 as baseline
- Percentage of patients with a ≥4-point improvement in Eczema Area and Severity Index (EASI) score (NDA40) through Week 8 as baseline

Safety

A safety summary can be found in the safety section.

Efficacy

Response endpoint was IGA-TS score of 0 or 1 with ≥50% improvement from baseline at Week 8. Additional analyses were at Week 2 and Week 4.

Conclusions

In patients aged 2 to 12 years with moderate to severe AD, ruxolitinib cream was well tolerated and had no effect on hematologic parameters or bone marrow marrow production of blood cells.

Pharmacokinetics

Mean (SD) plasma ruxolitinib C_{ss} level was achieved at Week 8 for 0.75%/1.5% ruxolitinib cream vs vehicle for both 0.75% and 1.5% ruxolitinib cream at Week 8, which was achieved by 3.8% of patients aged 2 to 12 years, respectively (Figure 2).

Table 2. TEAEs (Safety Population)

<table>
<thead>
<tr>
<th>Event (n=330)</th>
<th>Vehicle (n=62)</th>
<th>0.75% Ruxolitinib Cream (n=122)</th>
<th>1.5% Ruxolitinib Cream (n=125)</th>
<th>Total (n=310)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All events</td>
<td></td>
<td>0.75</td>
<td>2.0</td>
<td>0.92</td>
</tr>
<tr>
<td>≥3% events</td>
<td></td>
<td>0.75</td>
<td>2.0</td>
<td>0.92</td>
</tr>
</tbody>
</table>

Adverse Events

Most common TEAEs were application site irritation (67.9%) and pruritus (67.5%) in the vehicle group. Other common TEAEs included application site pruritus (46.7%) and cough (12.9%).

Disclosures

All authors disclose information regarding relevant conflicts of interest.

Acknowledgments

The authors thank their patients and families, site staff, and the following contributors: Feinberg School of Medicine, Chicago, IL, USA; Banskia, Incyte Corporation, New York, NY, USA; Henry Ford Health System, Detroit, MI, USA; Ortho Clinical Diagnostics, Raritan, NJ, USA; and patients and families, site staff, and the following contributors: Feinberg School of Medicine, Chicago, IL, USA; Banskia, Incyte Corporation, New York, NY, USA; Henry Ford Health System, Detroit, MI, USA; Ortho Clinical Diagnostics, Raritan, NJ, USA; and patients and families.
INTRODUCTION

- Oral Janus kinase (JAK) inhibitors have recently been approved for treatment of atopic dermatitis (AD). However, certain disease comorbidities, age, and drug interactions, may affect patient selection for these therapies.

OBJECTIVES

- To estimate the proportion of moderate-to-severe AD patients with potential considerations for JAK inhibitor use.

METHODS

- This was a retrospective study (study period: January 2015–September 2020) using OptumInsight Clinformatics® Data Mart Database to identify adults with moderate-to-severe AD defined by treatment, including phototherapy, systemic immunomodulatory medication or dupilumab. The index date was the date of first claim for treatments (Figure 1).
- A targeted review of the literature and prescribing information identified the following considerations associated with JAK inhibitor use: boxed warnings including risk of major cardiovascular events (MACE), thrombosis, infections, and malignancies; relative contraindications (conditions where JAK inhibitor labels advise to “avoid”, “discontinue”, or that is not recommended); precautions (other identified conditions); or drug-drug interactions.
- In accordance with the Pharmacovigilance Risk Assessment Committee (PRAC) recommendations, age ≥ 65 years was also considered to be a risk factor for complications with JAK inhibitor use and was included.
- The aforementioned criteria were used to estimate the proportion of moderate-to-severe AD patients with potential considerations for JAK inhibitor use.

RESULTS

Table 1. Patient characteristics, comorbidities, and treatment profile of moderate-to-severe AD patients

<table>
<thead>
<tr>
<th>Age at index date (years), mean ± SD</th>
<th>N = 143,925</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–35</td>
<td>55.0 ± 19.8</td>
</tr>
<tr>
<td>36–50</td>
<td>30,596 (21.3)</td>
</tr>
<tr>
<td>51–64</td>
<td>27,246 (19.1)</td>
</tr>
<tr>
<td>≥ 65</td>
<td>53,730 (37.8)</td>
</tr>
</tbody>
</table>

Table 2. JAK inhibitor related considerations among moderate-to-severe AD patients

Table 2. JAK inhibitor related considerations among moderate-to-severe AD patients

<table>
<thead>
<tr>
<th>Relative contraindications, n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Among adults with moderate-to-severe AD (N = 143,925)</td>
</tr>
<tr>
<td>Avascular necrosis</td>
</tr>
<tr>
<td>Baseline warnings</td>
</tr>
<tr>
<td>Contraindications</td>
</tr>
<tr>
<td>Precautions</td>
</tr>
<tr>
<td>Drug-drug interactions</td>
</tr>
</tbody>
</table>

Figure 1. Study schema

Study period (12 months of continuous enrollment pre-index)

Figure 2. Considerations potentially influencing JAK inhibitor use among adults with moderate-to-severe AD

CONCLUSIONS

- Over half of adults with moderate-to-severe AD had conditions potentially influencing the selection of JAK inhibitors, most commonly due to increased risk of MACE, and age ≥ 65.
- To further confirm results and quantify specific attributable risks, database studies with longer time periods where diagnoses can be confirmed by physicians or additional prospective studies may be helpful.

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Disclosures: Han G: Consultant, Speaker, or Research Support: Celgene, Janssen, Lilly, M2C, Pfizer, UCB, Boehringer Ingelheim, Bond Avikis, Athenex, Amgen, Abbvie, Regeneron, Sanofi Genzyme, LEO Pharma, Ortho Dermatolojik, BMS, Sun Pharma, Dermavant, MedIQ, Novartis, and Castle Biociences. Martins B: Employee of Analytica Group, Inc., Boston, Massachusetts, USA, a company which received research funds from Sanofi/Regeneron Pharmaceuticals, Inc. during the conduct of the study, Bégo-Le-Bagousse G: Sanofi – employee, may hold stock and/or stock options in the company. Delevry D, Thomas RB: Regeneron Pharmaceuticals, Inc. – employees and shareholders.

Presented at the Society of Dermatology Physician Assistants (SDPA) Fall Dermatology Conference 2023, October 25-29, Nashville, TN.
Real-world tralokinumab use in dupilumab-experienced patients: a retrospective multi-center case series

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1South Shore Dermatology Physicians, North Easton, MA; 2President, Columbia Dermatology, Columbia, SC; 3Assistant Clinical Professor of Dermatology, Yale University School of Medicine, New Haven, CT; Associate Director of Clinical Trials, CCD Research

Introduction

• Atopic dermatitis (AD) is a chronic relapsing inflammatory skin disease that negatively impacts the quality of life (Qol) of patients.

• There is still a need for treatment options that offer patients long-term disease control along with a favorable safety profile.

• Dupilumab, a monoclonal antibody (mAb) that targets IL-4Rα, blocking signaling of interleukin (IL)-13 and IL-4, is approved for the treatment of adults with moderate-to-severe AD in the US and EU.

• Tralokinumab, the first fully human mAb that specifically neutralizes IL-13, blocking its interaction with its receptor, is approved in the EU, UK, Canada, and the US for adults with moderate-to-severe AD.

• Phase 3 trials showed tralokinumab provided significant improvements in AD severity and was well-tolerated up to 52 weeks of treatment.

• Head-to-head studies of these two biologics have not been performed, and real-world evidence of tralokinumab use in moderate-to-severe AD patients that were previously treated with dupilumab is limited.

Objective

To further characterize the efficacy and safety profile of tralokinumab by evaluating clinical findings in patients previously treated with dupilumab in routine clinical practice who were switched to tralokinumab.

Methods

Patients

• Adult patients with moderate-to-severe AD from 3 dermatology practices in the US, that were previously treated with dupilumab, and subsequently switched to tralokinumab, were included.

• The healthcare providers at these sites recorded clinical information from these patients as part of their routine clinical practice.

Data collection

• Baseline characteristics data collected included:
  - History of previous treatments
  - Comorbidities
  - Morphologic and topographic AD phenotype
  - IGA and BSA prior to and at the time of initiating tralokinumab treatment
  - Disease duration
  - Duration of dupilumab treatment
  - Reason for dupilumab discontinuation

• Data collected related to tralokinumab treatment included:
  - Duration of treatment
  - Dose administered (i.e., on/off-label, every 2 or 4 weeks (Q2W/Q4W))
  - IGA
  - BSA
  - Patient-reported outcomes (PROs; e.g., itch, clearance of erythema, treatment satisfaction)

• Adverse events (AEs) possibly related to tralokinumab

Table 1. (A) Baseline characteristics and (B) outcomes on tralokinumab of nine dupilumab-experienced patients

<table>
<thead>
<tr>
<th>Patient</th>
<th>Age (yrs)</th>
<th>Ethnicity</th>
<th>IGA (%)</th>
<th>BSA (%)</th>
<th>Duration of AD (yrs)</th>
<th>Duration on dupilumab (wks)</th>
<th>Reason for dupilumab discontinuation</th>
<th>Duration on tralokinumab (wks)</th>
<th>Traks dose</th>
<th>IGA (wks)</th>
<th>BSA (%)</th>
<th>Improvement in PROs</th>
<th>AEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>49</td>
<td>White</td>
<td>16</td>
<td>3</td>
<td>6</td>
<td>Inadequately controlled AD</td>
<td>None</td>
<td>3</td>
<td>Q2W</td>
<td>0</td>
<td>0</td>
<td>Clearance, itch</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>49</td>
<td>White</td>
<td>18</td>
<td>3</td>
<td>6</td>
<td>Inadequately controlled AD</td>
<td>None</td>
<td>3</td>
<td>Q2W</td>
<td>0</td>
<td>0</td>
<td>Clearance, itch</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>49</td>
<td>White</td>
<td>16</td>
<td>3</td>
<td>6</td>
<td>Inadequately controlled AD</td>
<td>None</td>
<td>3</td>
<td>Q2W</td>
<td>0</td>
<td>0</td>
<td>Clearance, itch</td>
<td>None</td>
</tr>
<tr>
<td>4</td>
<td>49</td>
<td>White</td>
<td>16</td>
<td>3</td>
<td>6</td>
<td>Inadequately controlled AD</td>
<td>None</td>
<td>3</td>
<td>Q2W</td>
<td>0</td>
<td>0</td>
<td>Clearance, itch</td>
<td>None</td>
</tr>
<tr>
<td>5</td>
<td>49</td>
<td>White</td>
<td>16</td>
<td>3</td>
<td>6</td>
<td>Inadequately controlled AD</td>
<td>None</td>
<td>3</td>
<td>Q2W</td>
<td>0</td>
<td>0</td>
<td>Clearance, itch</td>
<td>None</td>
</tr>
<tr>
<td>6</td>
<td>49</td>
<td>White</td>
<td>16</td>
<td>3</td>
<td>6</td>
<td>Inadequately controlled AD</td>
<td>None</td>
<td>3</td>
<td>Q2W</td>
<td>0</td>
<td>0</td>
<td>Clearance, itch</td>
<td>None</td>
</tr>
<tr>
<td>7</td>
<td>49</td>
<td>White</td>
<td>16</td>
<td>3</td>
<td>6</td>
<td>Inadequately controlled AD</td>
<td>None</td>
<td>3</td>
<td>Q2W</td>
<td>0</td>
<td>0</td>
<td>Clearance, itch</td>
<td>None</td>
</tr>
<tr>
<td>8</td>
<td>49</td>
<td>White</td>
<td>16</td>
<td>3</td>
<td>6</td>
<td>Inadequately controlled AD</td>
<td>None</td>
<td>3</td>
<td>Q2W</td>
<td>0</td>
<td>0</td>
<td>Clearance, itch</td>
<td>None</td>
</tr>
<tr>
<td>9</td>
<td>49</td>
<td>White</td>
<td>16</td>
<td>3</td>
<td>6</td>
<td>Inadequately controlled AD</td>
<td>None</td>
<td>3</td>
<td>Q2W</td>
<td>0</td>
<td>0</td>
<td>Clearance, itch</td>
<td>None</td>
</tr>
</tbody>
</table>

Results

Baseline Characteristics

• Baseline characteristics of the 9 patients included in the case series are shown in Table 1.

• All patients were experiencing plaques/classical AD, 6 (67%) reported previously using prednisone, and 5 (56%) reported having asthma as a comorbidity.

• Median (range) baseline IGA and IGA at time of tralokinumab administration were 4 (3-4) and 3 (2-4), respectively.

• Median baseline BSA and BSA at time of tralokinumab administration were 20% (4-30%) and 10% (1-30%), respectively.

Outcomes on tralokinumab

• All 9 dupilumab-experienced patients were administered on-label tralokinumab (Q2W for 8 patients, Q4W for 1 patient) and had been on tralokinumab for 28 months.

• At the time of data collection, median (range) IGA and BSA for these patients were 0 (0-3) and 0% (0-10%), respectively.

• All patients experienced improvements in PROs (see examples in Figure 1):
  - 67% (6/9) of patients reported improvements in itch with NRS scores of 0 or 1
  - 44% (4/9) reported general clearance of AD signs and symptoms of AD
  - 44% (4/9) reported their overall satisfaction of being on tralokinumab

• AEs of conjunctivitis (2 patients) and joint pain (1 patient) completely resolved in patients upon switching from dupilumab to tralokinumab.

• Residual symptoms and signs of AD following initiation of tralokinumab were managed with antihistamines (1 patient), topical uAK inhibitors (1), and prednisone (1).

• No AEs were reported except in 1 patient with possible mild seborrheic dermatitis/head-neck dermatitis eruption that was treated with topical, and 1 patient with herpes labialis (unresolved if related to tralokinumab treatment).

Conclusions

• This case series suggests that tralokinumab is a potential effective therapy in patients with moderate-to-severe AD who have failed dupilumab, due to lack of efficacy or AEs.

• Resolution of AEs of concern for biologic therapies for AD, such as conjunctivitis, was observed in patients upon switching from dupilumab to tralokinumab.

• Further studies are needed to elucidate if and how the different mechanisms of action of dupilumab and tralokinumab contribute to varying responses in patients.

Abbreviations: AD, atopic dermatitis; IGA, Investigator’s Global Assessment; BSA, body surface area; mAb, monoclonal antibody; Q2W, every 2 weeks; Q4W, every 4 weeks; PROs, Patient-Reported Outcomes; NRS, Numeric Rating Scale; iAK, immune checkpoint; rADA, Real-World American Dermatology Association.


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Figure 1. Photographs of dupilumab-experienced patient #2 (A-C) and patient #3 (D) before and after initiating tralokinumab

- Photograph a is clear and shows improvement in “Urticaria” of rolled plaques.

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Secukinumab in Moderate to Severe Hidradenitis Suppurativa: A Pooled Subgroup Analysis From the SUNSHINE and SUNRISE Phase 3 Trials

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1Department of Dermatology, University of Southern California, Los Angeles, CA; 2Department of Dermatology, University of Arkansas for Medical Sciences, Little Rock, AR; 3NorthShore University HealthSystem, Skokie, IL; 4Northwestern Medicine, Chicago, IL; 5Novartis Pharmaceuticals Corporation, East Hanover, NJ; 6Novartis Pharma AG, Shanghai, China

ABSTRACT

Patients with HS experience a high physical and psychological burden.1-5 To our knowledge, no prior study has assessed the efficacy of secukinumab in a pooled population of patients with moderate to severe HS by patient age, sex, and race.

METHODS

1) This post hoc analysis included patients from the randomized, double-blind, phase 3 SUNRISE and SUNSHINE trials in which the efficacy, safety, and tolerability of secukinumab were assessed in patients with moderate to severe HS.2-6

2) Patients were aged ≥18 years with moderate to severe HS defined as ≥1 year prior to baseline of disease, ≥2 distinct anatomical areas, and a history of HS abscesses, with or without draining tunnels that result in pain and often infections.

3) Patients received subcutaneous secukinumab 300 mg every 4 weeks (Q4W), secukinumab 300 mg every 2 weeks (Q2W), placebo, or other systemic biologic therapy.

RESULTS

1) Patient Demographics by Subgroup

- A total of 361, 360, and 363 patients who received secukinumab Q2W, secukinumab Q4W, and placebo, respectively, were included in this post hoc analysis (Table 1).

2) Patient demographics were similar across treatment groups, the majority of patients were ≥40 years old and identified as White, and more than half of patients were current smokers.

3) Similar increased proportions of HiSCR50 responders were seen in patients treated with secukinumab compared with placebo through week 16, irrespective of patient sex, with a rapid onset by week 2 (Figure 1).

4) In both male and female patients, larger reductions from baseline in AN counts were seen in patients receiving secukinumab than those receiving placebo at week 2 through 16 (Figure 3).

5) Similar trends of numerically higher proportions of HiSCR50 responders and percent change in AN counts from baseline compared with placebo in both age groups and doses through week 16 (Figure 2).

6) Patients with moderate to severe HS who received secukinumab had a rapid onset by week 2 (Figure 4).

LIMITATIONS

1) In this post hoc analysis, the number of evaluable patients in certain subgroups was limited, therefore, conclusions are restricted for these subgroups.

2) Descriptive statistics are reported for some of the outcomes of interest to allow interpretation of the findings.

CONCLUSIONS

1) Secukinumab had a rapid onset by week 2 (Figure 4), and higher proportions of HiSCR50 responders and larger reductions from baseline in AN counts from baseline at week 16 were seen in patients receiving secukinumab compared with placebo through week 16, irrespective of patient sex.

2) The efficacy of secukinumab in a pooled population of patients with moderate to severe HS by patient age, sex, and race is robustly supported by the results of this study.

REFERENCES


5. J. L. Hsiao

6. Scan QR code to access additional reference material.

DISCLOSURES


5. J. L. Hsiao

6. Scan QR code to access additional reference material.

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2. J. L. Hsiao is on the speakers bureau for Novartis and Boehringer Ingelheim, and has received honorariums from AbbVie, Amgen, Celgene, Hexal, Janssen, Pfizer, Roche, UCB, and Valeant. J. L. Hsiao is chair of the American Academy of Dermatology Research Committee, a member of the AAD Dermatologic Advisory Committee, and a member of the American Board of Dermatology, and has served as an advisor for AAD and other parties.

3. The findings of the study are published in accordance with Good Publication Practice (GPP 2022) guidelines. Authors had full access to the data, and the lead author had the final responsibility for the decision to submit for publication. The authors also disclose no conflicts of interest.

4. Scan QR code to access additional reference material.

Table 1. Pooled Baseline Demographic and Clinical Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>SEC Q2W (n=361)</th>
<th>SEC Q4W (n=360)</th>
<th>PBO (n=207)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>49.6 (19.0)</td>
<td>49.5 (18.4)</td>
<td>49.5 (18.5)</td>
</tr>
<tr>
<td>Sex</td>
<td>Male 189 (52.4)</td>
<td>Male 189 (52.6)</td>
<td>Male 114 (55.0)</td>
</tr>
<tr>
<td>Age &lt;40 years</td>
<td>142 (39.3)</td>
<td>143 (39.7)</td>
<td>113 (54.5)</td>
</tr>
<tr>
<td>White</td>
<td>320 (88.7)</td>
<td>322 (89.5)</td>
<td>278 (77.0)</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>21 (5.8)</td>
<td>22 (6.1)</td>
<td>22 (10.7)</td>
</tr>
<tr>
<td>Other race</td>
<td>10 (2.8)</td>
<td>9 (2.5)</td>
<td>17 (8.3)</td>
</tr>
<tr>
<td>Smoking status</td>
<td>Never 200 (55.4)</td>
<td>Never 200 (55.3)</td>
<td>Never 111 (53.7)</td>
</tr>
<tr>
<td>Current</td>
<td>162 (45.0)</td>
<td>162 (45.0)</td>
<td>102 (49.0)</td>
</tr>
<tr>
<td>Former</td>
<td>58 (16.1)</td>
<td>58 (16.1)</td>
<td>54 (26.1)</td>
</tr>
<tr>
<td>An abscess</td>
<td>243 (67.4)</td>
<td>243 (67.6)</td>
<td>186 (90.1)</td>
</tr>
<tr>
<td>Time since 1st abscess (years)</td>
<td>10.7 (9.8)</td>
<td>10.7 (10.3)</td>
<td>9.8 (9.5)</td>
</tr>
<tr>
<td>Time since 1st diagnosis (SD), years</td>
<td>6.1 (4.7)</td>
<td>6.1 (4.7)</td>
<td>6.0 (4.9)</td>
</tr>
<tr>
<td>Prior systemic biologic therapy</td>
<td>88 (24.4)</td>
<td>92 (25.6)</td>
<td>42 (20.7)</td>
</tr>
</tbody>
</table>

Figure 1. Efficacy of Secukinumab in Achievement of HiSCR50 by Patient Subgroup

Figure 2. Efficacy by Patient Age Subgroups Through Week 16

Figure 3. Efficacy Outcomes by Patient Sex Over Time

Figure 4. Efficacy in Patients With HS by Race Subgroups at Week 16

Table 2. Efficacy at Week 16 by Patient Race Subgroups

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>White (SEC Q2W n=282)</th>
<th>Asian (SEC Q2W n=43)</th>
<th>Black/African American (SEC Q2W n=24)</th>
<th>Other Race (SEC Q2W n=10)</th>
<th>Multiple Race (SEC Q2W n=4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HiSCR50 responders</td>
<td>183 (64.9)</td>
<td>27 (62.8)</td>
<td>13 (54.2)</td>
<td>2 (20.0)</td>
<td>1 (25.0)</td>
</tr>
<tr>
<td>OR (95% CI)</td>
<td>2.01 (0.64-6.54)</td>
<td>0.48 (0.24-0.98)</td>
<td>1.42 (0.34-6.22)</td>
<td>1.42 (0.07-27.40)</td>
<td>1.00 (0.01-100.00)</td>
</tr>
</tbody>
</table>

Table 3. Change in AN Count from Baseline to Week 16 by Sex and Race

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>White (SEC Q2W n=282)</th>
<th>Asian (SEC Q2W n=43)</th>
<th>Black/African American (SEC Q2W n=24)</th>
<th>Other Race (SEC Q2W n=10)</th>
<th>Multiple Race (SEC Q2W n=4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in AN count from baseline</td>
<td>-75.7 (19.6)</td>
<td>-12.0 (12.0)</td>
<td>-23.8 (11.4)</td>
<td>-10.3 (10.3)</td>
<td>-20.3 (10.3)</td>
</tr>
<tr>
<td>OR (95% CI)</td>
<td>0.15 (0.04-0.57)</td>
<td>1.30 (0.44-3.88)</td>
<td>0.85 (0.33-2.18)</td>
<td>0.94 (0.37-2.40)</td>
<td>0.48 (0.15-1.48)</td>
</tr>
</tbody>
</table>

Scan QR code to access additional reference material.
**RESULTS**

- **Demographics**
  - **Placebo**
    - Age (years), mean (SD): 47.4 (16.3) vs 73.5 (17.5)
    - Weight (kg), mean (SD): 64.7 (17.0) vs 76.3 (17.7)
    - Female, n (%): 44 (64.7) vs 75.2 (19.3)
    - Race, n (%): 38 (55.9) vs 50 (61.1)
    - White: 21 (30.9) vs 25 (30.8)
    - Black or African American*: 2 (2.9) vs 6 (7.4)
    - Asian: 26 (38.2) vs 28 (32.6)
    - Other or missing data: 2 (2.9) vs 3 (3.3)
  - **Dupilumab 300 mg q2w**
    - Age (years), mean (SD): 48.6 (15.7) vs 76.3 (17.7)
    - Weight (kg), mean (SD): 47.0 (17.0) vs 76.3 (17.7)
    - Female, n (%): 47 (69.7) vs 75.2 (19.3)
    - Race, n (%): 33 (48.6) vs 50 (61.1)
    - White: 26 (38.2) vs 28 (32.6)
    - Black or African American*: 2 (2.9) vs 6 (7.4)
    - Asian: 26 (38.2) vs 28 (32.6)
    - Other or missing data: 2 (2.9) vs 3 (3.3)

- **Proportion of patients achieving an IGA PN-S score 0 or 1 by history of atopy.**
  - **Placebo**
    - Atopic: 29/67 (43.3) vs 20.0 (30.0)
    - Non-atopic: 33/86 (38.4) vs 20.0 (23.5)
  - **Dupilumab 300 mg q2w**
    - Atopic: 14/68 (20.6) vs 20.0 (30.0)
    - Non-atopic: 51/86 (59.5) vs 20.0 (23.5)

**SAFETY**

- Overall safety was consistent with the known dupilumab safety profile, with treatment-emergent adverse events (TEAEs) occurring with similar rates in dupilumab-treated patients with or without history of atopy (66.7%/61.6%), compared with placebo (52.8%/59.6%).

- Patients with or without history of atopy had similar or lower rates of severe TEAEs in the dupilumab groups (4.6%/2.3%) compared with the placebo groups (4.4%/6.7%).

**CONCLUSIONS**

- Dupilumab treatment for 24 weeks improves itch and skin lesions in PN patients regardless of atopic comorbidity history.
- These observations indicate that underlying type 2 inflammation is present in patients with PN regardless of their history of atopic comorbidity.

**METODS**

**Study design**

- **Population**: Adult patients with PN inadequately controlled with topical prescription therapies or for whom those therapies are inadvisable.

  - **Subgroups**: Atopic patients and non-atopic patients
  - **Dupilumab**: Patients with or without history of atopy had similar or lower rates of severe TEAEs in the dupilumab groups (4.6%/2.3%) compared with the placebo groups (4.4%/6.7%).

- **Treatment**: Dupilumab 300 mg every 2 weeks (q2w) or matched placebo for 24 weeks.

- **Statistical methods**: Results were calculated using Chi-square test. Non-responder imputation -values were calculated using Chi-square test. Non-responder imputation.
**OBJECTIVE**

To report patient-reported itch outcomes from the PSOARING 1 and PSOARING 2 clinical trials.

**MATERIALS AND METHODS**

**Trial Design**

- Adults with mild to severe plaque psoriasis enrolled in PSOARING 1 or PSOARING 2 were randomized 2:1 to tapinarof 1% cream or vehicle QD 12 weeks. 

- **Baseline Patient Demographics and Disease Characteristics**

<table>
<thead>
<tr>
<th>Item 1</th>
<th>Item 2</th>
<th>Item 3</th>
<th>Item 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>5.6 (2.7)</td>
<td>5.9 (2.7)</td>
<td>5.8 (2.6)</td>
<td>6.0 (2.8)</td>
</tr>
<tr>
<td>5.5 (2.9)</td>
<td>5.7 (3.0)</td>
<td>5.6 (2.8)</td>
<td>5.7 (3.0)</td>
</tr>
</tbody>
</table>

- **Objectives**
  - The Psoriasis Symptom Diary (PSD) assesses the severity, bother, and functional impact of itch.

- **Design**
  - Randomized 2:1 to tapinarof cream 1% QD or vehicle QD for 12 weeks. 

- **Primary Efficacy Endpoints**
  - Change in PSD itch severity item.

- **Secondary Efficacy Endpoints**
  - Change in PSD itch bother item.

- **Safety**
  - Treatment-emergent adverse events (TEAEs) were mostly mild to moderate and discontinuations due to TEAEs were low.

- **Conclusions**
  - Tapinarof 1% cream 1% QD is well-tolerated treatment option for patients with mild to severe plaque psoriasis, including those with significant itch.

- **Acknowledgments**

- **References**

- **Figure 1**

  - **Baseline Patient Demographics and Disease Characteristics**

  - Objectives

  - Design

  - Primary Efficacy Endpoints

  - Secondary Efficacy Endpoints

  - Safety

  - Conclusions

  - Acknowledgments

  - References
Development of a Patient-Centered Conceptual Disease Model for Prurigo Nodularis: Qualitative Content Analysis

INTRODUCTION

- Prurigo nodularis (PN), or chronic pruritus, is characterized by chronic pruritus and multiple localized or generalized lesions. The intense itching people with PN experience often causes excoriation, leading to secondary lesions and an intractable itch-scratch cycle. There is no standardized or approved therapy for PN, and evidence from controlled studies is limited.

- People with PN often experience impaired quality of life (QoL) as a result of inadequately managed skin lesions and itching.

- A conceptual disease model (CDM) is a visual representation of the patient-reported symptoms and proximal-to-distal impacts of a disease. CDMs, which are used for identifying patient-relevant outcomes, help researchers to develop patient-focused outcome measurement strategies for PN clinical trials. However, no CDM for PN has been published so far.

METHODS

- PARTICIPANTS

  - Qualitative interviews were held with English-speaking US adults (≥18 years) diagnosed with PN ≥6 months prior to the interview who scored ≥7 on the peak pruritus numeric rating scale (NRS) and ≥4 on the sleep disturbance NRS during questioning.

  - Interview participants were recruited with the assistance of the market research vendor by convenience sampling. Potential participants were identified via patient associations, patient panels, and social media.

- DATA COLLECTION AND ANALYSIS

  - The interview protocol was approved by a central institutional review board. Interviews lasted up to 90 minutes and were conducted in English by researchers experienced in qualitative research using a semi-structured interview guide. After the interview, each participant completed a paper questionnaire on their demographics and health/medical history.

  - Audio recordings of the interviews were transcribed verbatim. Interview transcripts were de-identified for any personally identifiable information, and content analysis was conducted using ATLAS.ti.

- DEVELOPMENT OF CDM

  - A CDM for PN was developed using multiple data sources, including qualitative interviews with people with PN, as well as an unpublished literature review and expert opinion. The framework for the CDM was based on published CDMs for chronic itch and atopic dermatitis.

RESULTS

- The mean age of the 21 adults with PN and severe itch was 53 ± 14 years. Most people were female (71%), white (86%), and non-Hispanic/Latino (95%). More than half of participants (57%) had been diagnosed with PN 10 years previously; 6.29% had been diagnosed with PN >10 years previously. Most participants (90%) had ≥20 nodules at the time of the interview.

- Itching was reported by all participants. Other frequent symptoms endorsed by >30% of the participants were pain related to PN (100%), itching/bloating (100%), dry skin (100%), lumps/bumps (95%), white or dark crust on skin (95%), burning (90%), stinging (90%), lesions/sores (86%), skin discoloration (86%), raw skin (81%), rough skin (76%), and tingling (57%).

- Other impacts reported by ≥30% of the interview participants were sleep disturbance (71%), and had an impact on feelings or mood (n=17), itching was identified as a direct cause of sleep disturbance (6%), as well as impacts on daily life (100%), financial (10%). Among the participants who reported on the worst impact, impacts on feelings and moods were reported by the majority (53%) as the worst, followed by sleep disturbances, social life, and work or school (12%).

- Day-to-day activities and relationships (stigma) were reported as the worst impact by one participant each (6% each).

- Among those who directly attributed PN impacts to itching (n=17), itching was identified as a direct cause of sleep disturbance (71%), and had an impact on feelings or mood (53%), daily life (47%), work or school (29%), relationships (12%), and social life (6%).

- CDM OF PN

  - The CDM was finalized with input from a clinician specialized in treating PN and is presented in Figure 1.

- While the primary clinical manifestation of PN is itchy lumps and bumps, the various symptoms and impacts of PN are interlinked. Itching leads to scratching, which results in bleeding/blooding and inflammation or infection. Most impacts of PN are indirectly affected by itching and scratching at night as a result of sleep disturbance.
Dupilumab Improves Urticaria Signs and Symptoms and Quality of Life in Patients With Chronic Spontaneous Urticaria (CSU)

Marcus Maurer1,2, Thomas B. Casale3, Sarbjit S. Saini4, Moshe Ben-Shoshan5, Allen Radin6, Deborah Bauer7, Ryan B. Thomas8

1Institute of Allergology, Charité – Universitätsmedizin Berlin, corporate member of Free University, Berlin and Humboldt-University of Berlin, Berlin, Germany; 2Fraunhofer Institute for Translational Medicine and Pharmacology ITMP, Allergology and Immunology, Berlin, Germany; 3University of South Florida, Tampa, FL, USA; 4Johns Hopkins Asthma and Allergy Center, Baltimore, MD, USA; 5McGill University Health Centre, Montreal, QC, Canada; 6Regeneron Pharmaceuticals Inc., Tarrytown, NY, USA; 7Sanofi, Bridgewater, NJ, USA

BACKGROUND

• Chronic spontaneous urticaria (CSU) is a chronic inflammatory disease characterized by wheals, angioedema, or both that recur for more than 6 weeks and cause itching or burning.1,2

• CSU affects health-related quality of life (QoL) through physical symptoms such as itch, but also interferes with emotional well-being and disrupts patients’ daily activities and performance at work and school.3,4

• Many patients continue to experience substantial disease burden despite treatment with antihistamines, the standard of care for CSU.4,5

OBJECTIVE

• To report the effect of dupilumab treatment on disease burden and QoL in patients with CSU from LIBERTY-CSU CUPID Study A

METHODS

Figure 1. Study design of LIBERTY-CSU CUPID Study A.

METHODS (CONT.)

Study design

LIBERTY-CSU CUPID Study A (NCT04180488) is a randomized, placebo-controlled, phase 3 trial of dupilumab treatment up to 24 weeks in adults, adolescents, and children ≥ 6 years of age with CSU who remain symptomatic despite the use of standard-of-care antihistamines (H1-AH) (Figure 1).

Patient population: aged ≥ 6 years; diagnosis of CSU > 6 months prior to screening visit; presence of itch and hives for > 6 consecutive weeks despite H1-AH use; Urticaria Activity Score over 7 days (UAS7) ≥ 16 and Itch Severity Score over 7 days (ISS7) ≥ 8; omalizumab naive; patients with active dermatitis were excluded.

Background therapy: study-defined H1-AH (up to 4-fold recommended dose)

Study assessment instruments

ISS7 (range 0–21): sum of daily ISS (ranging from 0 = none to 3 = intense) over 7 days

Hives severity score over 7 days (HSS7; range 0–21): sum of daily HSS (ranging from 0 = 0 hives to 3 = > 50 hives) over 7 days

UAS7 (range 0–42): sum of the daily HSS7 and ISS7 scores over 7 days

Chronic urticaria quality of life questionnaire (CU-Q2oL; range 0–100): validated, disease-specific instrument used to assess QoL in patients with CSU; self-administered, 23-item questionnaire involves patient’s perception of the burden of CSU on itch, swelling, impact on life activities, sleep problems, looks, and limitations,6 and is recommended to assess the QoL impairments for patients with CSU;7 higher scores indicate greater QoL impairment

Outcomes

Efficacy endpoint: change in UAS7 from baseline (BL) at Week 24

QoL endpoint: change in CU-Q2oL from BL at Week 24

Dupilumab was well tolerated, and the overall safety was consistent with the known dupilumab safety profile

RESULTS

Figure 2. Dupilumab treatment led to significant improvements in UAS7 at Week 24.

Figure 3. Dupilumab treatment led to improvement in CU-Q2oL at Week 24.

CONCLUSIONS

• Patients with CSU treated with dupilumab experienced significant reduction in urticaria activity, as measured by UAS7, and improvement in QoL, as measured by CU-Q2oL

• QoL improvement with dupilumab addresses an important goal of urticaria treatment

References:

Presented at the 2023 Annual Society of Dermatology Physician Assistants Fall Conference (Fall SDPA); Nashville, TN, USA; October 25-26, 2023.
Complete/near-Complete Itch Response Observed in Adult and Adolescent Patients With Moderate-to-Severe Atopic Dermatitis Initiating Dupilumab Treatment in Real-World Practice

Neal Bhatia¹, Charles W. Lynde²,³, Luz Fonacier⁴,⁵, Tingting Tian⁶, Kwinten Bosman⁷, Andrew Korotzer⁶

¹Therapeutics Clinical Research, San Diego, CA, USA; ²University of Toronto, Markham, ON, Canada; ³Lundgren Research, Markham, ON, Canada; ⁴New York University Langone Hospital—Long Island, Mineola, NY, USA; ⁵New York University Long Island School of Medicine, Mineola, NY, USA; ⁶Regeneron Pharmaceuticals Inc., Tarrytown, NY, USA; ⁷Sanofi, Amsterdam, The Netherlands

BACKGROUND
- Chronic itch (pruritus) is a defining characteristic of atopic dermatitis (AD) and is a significant contributor to poor quality of life in patients
- A Pruritus/Peak Pruritus Numerical Rating Scale (NRS) score of 0/1 is considered a complete or near-complete itch response

OBJECTIVE
- To report Pruritus NRS and Overall Disease Severity (ODS) scores of 0/1 over time in patients older than 12 years with moderate-to-severe AD initiating dupilumab in real-world practice

METHODS
- Patients aged ≥ 12 years with moderate-to-severe AD, initiating real-world dupilumab treatment for AD per approved prescribing information in the US and Canada, were eligible for entry into PROSE (NCT03428646).
- Enrolled patients received their first dose of dupilumab at the baseline visit:
  - There were no restrictions on post-baseline dupilumab dosing changes, or concomitant medication use
  - Patients were encouraged to stay in the study if they discontinued dupilumab
- Data presented are from an interim analysis (data cut taken as of November 2022); only ≥ 36 months of patient experience in real-world dupilumab treatment for AD per approved prescribing information in the US and Canada, were eligible for entry into PROSE (NCT03428646).

RESULTS

Table 1. Baseline demographics and disease characteristics.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total (n = 854)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years</td>
<td>40 (17.3)</td>
</tr>
<tr>
<td>Sex, n (%)</td>
<td>360 (42.0)</td>
</tr>
<tr>
<td>Race, n (%)</td>
<td>465 (54.3)</td>
</tr>
<tr>
<td>Black or African-American</td>
<td>122 (14.2)</td>
</tr>
<tr>
<td>Asian</td>
<td>184 (22.0)</td>
</tr>
<tr>
<td>White</td>
<td>172 (20.0)</td>
</tr>
<tr>
<td>Duration of AD, years (n = 847)</td>
<td>17.4 (18.2)</td>
</tr>
<tr>
<td>BSA affected by AD, % (n = 853)</td>
<td>24.9 (21.2)</td>
</tr>
<tr>
<td>EASI (range: 0–72) (n = 853)</td>
<td>16.2 (15.0)</td>
</tr>
<tr>
<td>Pruritus NRS range (0–10) (n = 622)</td>
<td>7.1 (12.3)</td>
</tr>
<tr>
<td>ODS score, n (%)</td>
<td>470 (55.9)</td>
</tr>
<tr>
<td>No disease (Scale = 0)</td>
<td>5 (0.6)</td>
</tr>
<tr>
<td>Minimal disease (Scale = 1)</td>
<td>14 (1.0)</td>
</tr>
<tr>
<td>Mild disease (Scale = 2)</td>
<td>71 (8.3)</td>
</tr>
<tr>
<td>Modest disease (Scale ≥ 3)</td>
<td>479 (55.9)</td>
</tr>
<tr>
<td>Severe disease (Scale ≥ 4)</td>
<td>263 (30.3)</td>
</tr>
<tr>
<td>Unavailable/NA</td>
<td>3 (0.4)</td>
</tr>
<tr>
<td>Missing</td>
<td>622 (73.8)</td>
</tr>
</tbody>
</table>

Data presented as mean (SD) unless stated otherwise. AD, Atopic Dermatitis; BSA, body surface area; EASI, Extent and Severity Index; NA, not applicable; NRS, Numerical Rating Scale; ODS, Overall Disease Severity; SD, standard deviation.

Table 2. Patient disposition by visit.

<table>
<thead>
<tr>
<th>Month</th>
<th>Total (n = 854)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>122 (14.2)</td>
</tr>
<tr>
<td>3</td>
<td>210 (25.0)</td>
</tr>
<tr>
<td>6</td>
<td>183 (21.6)</td>
</tr>
<tr>
<td>12</td>
<td>103 (12.3)</td>
</tr>
</tbody>
</table>

Figure 1. Proportion of patients achieving a Pruritus NRS score of 0/1 over time.

Figure 2. Proportion of patients achieving an ODS score of 0/1 over time.

Table 3. Safety.

<table>
<thead>
<tr>
<th>Category</th>
<th>Any TEAE</th>
<th>ADR</th>
<th>Any Serious TEAE</th>
<th>Any Serious ADR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All patients</td>
<td>28 (3.3)</td>
<td>2</td>
<td>4 (0.5)</td>
<td>0</td>
</tr>
<tr>
<td>Baseline</td>
<td>5 (0.6)</td>
<td>0</td>
<td>0 (0.0)</td>
<td>0</td>
</tr>
<tr>
<td>Month 3</td>
<td>23 (2.7)</td>
<td>1</td>
<td>1 (0.1)</td>
<td>0</td>
</tr>
<tr>
<td>Month 6</td>
<td>38 (4.5)</td>
<td>3</td>
<td>1 (0.1)</td>
<td>0</td>
</tr>
<tr>
<td>Month 12</td>
<td>67 (8.0)</td>
<td>4</td>
<td>2 (0.2)</td>
<td>0</td>
</tr>
<tr>
<td>Month 24</td>
<td>82 (9.7)</td>
<td>5</td>
<td>1 (0.1)</td>
<td>0</td>
</tr>
<tr>
<td>Month 36</td>
<td>103 (12.3)</td>
<td>6</td>
<td>2 (0.2)</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 4. TEAE, treatment-emergent adverse event.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Total (n = 857)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adverse event</td>
<td>3 (0.4)</td>
</tr>
<tr>
<td>Death</td>
<td>-</td>
</tr>
<tr>
<td>Decision by the investigator/reason</td>
<td>3 (0.3)</td>
</tr>
<tr>
<td>Lost to follow-up</td>
<td>7 (0.8)</td>
</tr>
<tr>
<td>Non-compliance with protocol</td>
<td>4 (0.5)</td>
</tr>
<tr>
<td>Withdrawal consent by the patient</td>
<td>19 (2.2)</td>
</tr>
<tr>
<td>COVID-19</td>
<td>1 (0.1)</td>
</tr>
<tr>
<td>Others</td>
<td>2 (0.2)</td>
</tr>
</tbody>
</table>

Table 5. Other, specify.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Total (n = 857)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ocular surface event-related PTs, including conjunctivitis</td>
<td>622 (73.8)</td>
</tr>
<tr>
<td>Conjunctivitis</td>
<td>71 (8.3)</td>
</tr>
<tr>
<td>Dry eye</td>
<td>8 (1.0)</td>
</tr>
<tr>
<td>Non-infective conjunctivitis</td>
<td>2 (0.3)</td>
</tr>
<tr>
<td>Conjunctivitis allergic</td>
<td>4 (0.5)</td>
</tr>
<tr>
<td>Ocular hyperemia</td>
<td>4 (0.5)</td>
</tr>
<tr>
<td>Wound ulcer</td>
<td>4 (0.5)</td>
</tr>
<tr>
<td>Wound infection</td>
<td>4 (0.5)</td>
</tr>
<tr>
<td>Eye pruritus</td>
<td>2 (0.1)</td>
</tr>
<tr>
<td>Eyelid pruritus</td>
<td>1 (0.1)</td>
</tr>
<tr>
<td>Eye irritation</td>
<td>1 (0.1)</td>
</tr>
<tr>
<td>Eye discharge</td>
<td>1 (0.1)</td>
</tr>
<tr>
<td>Eye irritation</td>
<td>1 (0.1)</td>
</tr>
<tr>
<td>Eye swelling</td>
<td>1 (0.1)</td>
</tr>
<tr>
<td>Eyelid pruritus</td>
<td>1 (0.1)</td>
</tr>
<tr>
<td>Eye infection</td>
<td>1 (0.1)</td>
</tr>
<tr>
<td>Keratitis</td>
<td>1 (0.1)</td>
</tr>
<tr>
<td>Ocular discomfort</td>
<td>1 (0.1)</td>
</tr>
<tr>
<td>Uveitis</td>
<td>1 (0.1)</td>
</tr>
</tbody>
</table>

CONCLUSIONS
- In this interim analysis of PROSE, a majority of patients reported a complete/near-complete pruritus response and overall disease severity response over a 36-month period
- Overall safety was consistent with the known dupilumab safety profile


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Integrated Safety Analysis of Abrocitinib in 635 Adolescent Patients With Moderate-To-Severe Atopic Dermatitis With Over 1000 Patient-Years of Exposure

Amy S. Paller,1 Lawrence F. Eichenfield,2 Jonathan I. Silverberg,3 Michael J. Cork,4 Christine Bangert,5 Alan D. Irvine,6 Stephan Weidinger,7 Sebastian Barbarot,8 Haiyun Fan,9 Justine Alderer,10 Heregir Koppensteiner,10 Kanti Chitturul3
Northwestern University Feinberg School of Medicine, Chicago, IL, USA; 1UC San Diego and Rady Children’s Hospital-San Diego, San Diego, CA, USA; 1The George Washington University School of Medicine & Health Sciences, Washington, DC, USA; 1Shelfield Dermatology Research, ICD, University of Sheffield and Sheffield Children’s Hospital, Sheffield, United Kingdom; 1Medical University of Vienna, Vienna, Austria; 1St James Hospital, Trinity College Dublin School of Medicine, Dublin, Ireland; 1University Hospital Schleswig-Holstein, Kiel, Germany; 1Nantes University Hospital Center, Nantes, France; 1Pfizer Inc., Collegeville, PA, USA; 1Pfizer Corporation Austria GmbH, Vienna, Austria

BACKGROUND

• Abrocitinib is an oral, once-daily, Janus kinase 1-selective inhibitor approved for the treatment of moderate-to-severe atopic dermatitis (AD)
• Recently, the US Food and Drug Administration expanded the indication of abrocitinib to include adolescent patients with moderate-to-severe AD aged 12 to <18 years
• In a previous post hoc analysis, abrocitinib was efficacious and well tolerated in adolescent patients with approximately 1 year of exposure in the JADE clinical program

OBJECTIVE

• To describe the updated long-term integrated safety profile of abrocitinib in adolescent patients treated in the JADE clinical program

METHODS

• This interim integrated safety analysis assessed data from patients aged 12 to <18 years who participated in the JADE clinical trials (MONO-1 [NCT03349560], MONO-2 [NCT03757871], TEEN [NCT03757677], and REGIMEN [NCT03757777]) and subsequently enrolled in the ongoing phase 3 extension trial, JADE EXTEND (NCT03428822; data cut: September 25, 2021)
• Data were pooled into 2 cohorts
  – The consistent-dose cohort comprised patients who received the same abrocitinib dose (200 mg or 100 mg) during the entire exposure time in the qualifying JADE trials, MONO-1, MONO-2, or TEEN and in JADE EXTEND
  – This cohort also included patients who did not meet the inclusion criteria for the maintenance period of JADE REGIMEN after abandoning 200-mg induction in the open-label period and subsequently received abrocitinib 200 mg in JADE JADE EXTEND
  – The variable-dose cohort included patients who were randomly assigned to the maintenance period of JADE REGIMEN after induction and, therefore, could have received different abrocitinib doses throughout exposure time in JADE REGIMEN and who subsequently entered JADE EXTEND
• Incidence rates (IRs) and 95% CIs are presented as numbers of patients with events per 100 patient-years (PY)

RESULTS

Patients and Baseline Characteristics

• The analysis included 635 adolescent patients
  – The consistent-dose cohort comprised 490 adolescents, and the variable-dose cohort comprised 145 adolescents
• Baseline patient characteristics are shown in Table 1

Table 1. Baseline Patient Characteristics for the Adolescent Consistent-Dose and Variable-Dose Cohorts

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Consistent-Dose Cohort n=490</th>
<th>Variable-Dose Cohort n=145</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, mean (SD), y</td>
<td>14.9 (1.8)</td>
<td>15.1 (1.8)</td>
</tr>
<tr>
<td>Male, %</td>
<td>54</td>
<td>59</td>
</tr>
<tr>
<td>Race, %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>64</td>
<td>72</td>
</tr>
<tr>
<td>Black or African American</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Asian</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>Othera</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Disease duration, median (Q1, Q3), y</td>
<td>12.7 (7.9, 14.9)</td>
<td>12.1 (6.4, 15.0)</td>
</tr>
<tr>
<td>EASI score, median (Q1, Q3)</td>
<td>26.0 (21.0, 40.5)</td>
<td>29.2 (21.4, 38.4)</td>
</tr>
<tr>
<td>IGA score, %</td>
<td>3 (moderate)</td>
<td>4 (severe)</td>
</tr>
<tr>
<td>4 (severe)</td>
<td>55</td>
<td>63</td>
</tr>
<tr>
<td>Prior therapy, %</td>
<td>45</td>
<td>37</td>
</tr>
<tr>
<td>Systemic</td>
<td>34</td>
<td>51</td>
</tr>
<tr>
<td>Topical only</td>
<td>65</td>
<td>48</td>
</tr>
</tbody>
</table>

Recent, the US Food and Drug Administration expanded the indication of abrocitinib with a ≥2-grade improvement from baseline and ≥75% improvement from baseline in EASI) after 12 weeks of maintenance period of JADE REGIMEN entered a 12-week open-label rescue period (abrocitinib 200 mg + topical medicated treatment).

Conclusions

• There were no unique safety concerns related to adolescents compared to the findings observed previously in the integrated safety analysis using the same data cut in which most patients were adults

References

1. Clinicians (abrocitinib): Prescribing Information. Pfizer Ltd; January 2022

Acknowledgments

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Presented at the 21st Annual Fall Dermatology Conference of the Society of Dermatology Physician Assistants (SDPA); October 25-29, 2023; Nashville, Tennessee, USA
Dupilumab Treatment Results in Rapid, Sustained, and Clinically Meaningful Improvement in Itch in Patients Aged 6 Months to 5 Years with Moderate-to-Severe Atopic Dermatitis

Amy S. Paller1,2, Elaine C. Siegfried3,4, Gil Yosipovitch5, Shawn G. Kwatra6, Kazuhiro Arima7, Amy Praestgaard8, Zhixiao Wang9, Randy Prescilla8

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BACKGROUND

- Atopic dermatitis (AD) is a complex, highly symptomatic, multidimensional chronic disease characterized by intense pruritus that negatively impacts the quality of life and mental health of patients and caregivers.1,2
- Previous phase 3 studies showed dupilumab induced rapid onset of itch reduction and significant improvement in signs, symptoms, and quality of life in adults, adolescents, and school-age children with severe AD, with an acceptable safety profile.3-5

OBJECTIVE

- To report the time to onset and the subsequent evolution of improvement in pruritus in patients aged 6 months to 5 years with moderate-to-severe AD treated with dupilumab

METHODS

- This analysis reports pruritus parameters from patients aged 6 months to 5 years with moderate-to-severe AD inadequately controlled with topical corticosteroids (TCS). These results were obtained during the double-blind, placebo-controlled, phase 3 study: LIBERTY AD PRESCHOOL (NCT03346434 part B)
- Patients were treated with:
  - Dupilumab subcutaneously every 4 weeks (q4w) + TCS (n = 83)
- Patients were treated with:
  - Baseline weight ≥ 5 kg to < 15 kg: 200 mg
  - Baseline weight ≥ 15 kg to < 30 kg: 300 mg
  - Placebo + TCS (n = 79)
- Impact on pruritus was assessed through:
  - Caregiver-reported Worst Scratch/Itch score Numeric Rating Scale (WSI-NRS; 0–10)
  - Proportion of caregivers reporting the number of days with itchy skin over the previous 7 days by visit on behalf of the patient – Patient-Oriented Eczema Measure Itch item (POEM Itch item)

RESULTS

Figure 1. LS mean percentage change from baseline (± SE) in daily average of Worst Scratch/Itch score at each visit through Day 16.

- Placebo + TCS (n = 79)
- Dupilumab 200/300 mg q4w + TCS (n = 83)

Figure 2. LS mean percentage change from baseline (± SE) in weekly average of Worst Scratch/Itch score at each visit through Week 16.

Figure 3. Proportion of patients with ≥ 4-point improvement from baseline in weekly average of Worst Scratch/Itch score at each visit through Week 16.

Figure 4. Proportion of caregivers reporting the number of days with itchy skin over the previous week, on behalf of the patient, by visit (POEM Itch item).

CONCLUSION

- Dupilumab treatment leads to rapid and sustained improvement in itch in children aged 6 months to 5 years with moderate-to-severe AD, with a significant effect seen as early as Day 9

OVERALL SAFETY

- Overall safety was consistent with the known dupilumab safety profile

REFERENCES

Topical Clindamycin For Acne Vulgaris: Pharmacovigilance Safety Review and Retrospective Analysis of Gastrointestinal Events

Natalia M. Pelet del Toro, MD,1 Andrew Strunk, MA,1 Jara J. Wu, MD,2 Linda Stein Gold, MD,3 James Q. Del Rosso, DO,4 Robert T. Brodell, MD,4 George Han, MD5

1Department of Dermatology, University of California, San Francisco, San Francisco, CA; 2Department of Dermatology, University of Alabama at Birmingham, Birmingham, AL; 3Department of Dermatology, University of Miami, Miami, FL; 4Department of Dermatology, University of Colorado, Denver, CO; 5Department of Dermatology, University of Kentucky, Lexington, KY.

SYNOPSIS

Clindamycin, a lincosamide antibiotic, was the 125th most prescribed medicine in the US in 2020.1,2 Topical formulations of clindamycin combined with topical benzoyl peroxide (BPO) or a retinoid are used for acne vulgaris (AV) treatment.3 Oral clindamycin carries an increased risk of Clostridioides difficile (C. difficile) colitis.4

While topical formulations of clindamycin have similar warnings and precautions compared with oral clindamycin (eg, diarrhea, abdominal cramping, nausea, vomiting), there is little published retrospective data on topical clindamycin use for AV treatment.5

OBJECTIVE

To summarize available safety data on topical clindamycin when used for AV treatment.

METHODS

Safety data from published literature, previously unpublished pharmacovigilance data, and two unpublished retrospective cohort studies were reviewed, with a focus on gastrointestinal AEs following topical administration of clindamycin monotherapy or combination therapy for AV.

RESULTS

Case Reports

Methods: Case reports were identified through literature search on PubMed for GI AEs associated with topical clindamycin use for AV treatment.

Unpublished Studies

As there is little published retrospective data on this topic, we carried out 2 retrospective cohort studies using the IBM Explorers database.

Pharmacovigilance Data

Methods: Worldwide pharmacovigilance data were analyzed from Jan 1, 1990–Dec 31, 2021 for topical clindamycin monotherapy or combination therapy with BPO or tretinoin and GI ADRs.

Clinical Trials

Methods: Safety data for GI AEs were gathered from published articles indexed on PubMed® or from US FDA New Drug Applications® of pivotal clinical trials of topical clindamycin for AV.

RESULTS

GI AEs rates in phase 3 pivotal trials of clindamycin-containing topical formulations for AV were low (up to 1.4%) and comparable to BPO, vehicle, and placebo.6

CONCLUSIONS

A review of published case reports, worldwide pharmacovigilance data, retrospective US prescription data, and clinical trials safety data demonstrate that the incidence of colitis or pseudomembranous colitis in patients with or without BPO exposed to topical clindamycin is extremely low.

Global incidence of GI-related AEs (via pharmacovigilance) is estimated at 0.000045%.

Rates of pseudomembranous colitis within 30 days of initial topical clindamycin prescription for AV (without concurrent oral clindamycin prescription) are <0.02%.

Rates of GI AEs in pivotal clinical trials were similar for topical clindamycin (monotherapy or combination) versus tretinoin, BPO, or vehicle.

REFERENCES


AUTHOR DISCLOSURES

Natalia M. Pelet del Toro: Nothing to disclose.

Andrew Strunk: Nothing to disclose.

Jana J. Wu: Consulting fee from GlaxoSmithKline. 

Linda Stein Gold: Nothing to disclose.

James Q. Del Rosso: Nothing to disclose.

Robert T. Brodell: Nothing to disclose.

George Han: Nothing to disclose.

Natalia M. Pelet del Toro is a full-time employee of the Ortho Dermatologics, a division of Bausch Health US, LLC. 

Robert T. Brodell has served as an investigator for Novartis and Corevitas; owns stock in Veradermics, Pfizer, Sun Pharma, and UCB. 

George Han has served as an investigator for Galderma, Janssen, and Or立asce. 

Robert T. Brodell has served as an investigator for Pfizer, Galderma, Bausch Health, and Or立asce.

Natalia M. Pelet del Toro and Andrew Strunk have no conflicts of interest to disclose.

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Natalia M. Pelet del Toro and Andrew Strunk have no conflicts of interest to disclose.

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Real-world tralokinumab use in patients with moderate-to-severe atopic dermatitis resistant to systemic therapy: a retrospective case series

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1Department of Dermatology, Sant Bortolo Hospital, Vicenza, Italy; A Study Centre of the Italian Group for the Epidemiologic Research in Dermatology (GISED), Bergamo, Italy

Baseline characteristics of the 36 patients in this case series (15 dupilumab-experienced and 21 non-dupilumab-experienced) are shown in Table 1.

Mean age (range), years Mean duration of AD (range), years Baseline characteristics of dupilumab- and non-dupilumab-experienced AD patients at time of tralokinumab initiation

### Table 1. Baseline characteristics of dupilumab- and non-dupilumab-experienced AD patients at time of tralokinumab initiation

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Dupilumab-exp. (n=15)</th>
<th>Non-dupilumab-exp. (n=21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age (years)</td>
<td>35.9 (19.0-63.0)</td>
<td>40.9 (16.0-60.0)</td>
</tr>
<tr>
<td>Mean duration of AD (years)</td>
<td>12.0 (0.0-23.0)</td>
<td>16.7 (2.0-46.0)</td>
</tr>
</tbody>
</table>

### Objective

To characterize the efficacy and safety profile of tralokinumab by evaluating clinical findings in patients with moderate-to-severe AD resistant to systemic therapies, including dupilumab, in normal clinical practice who were switched to tralokinumab.

### Data collection

#### Baseline characteristics data collected included:
- Disease duration
- Morphologic and topographic AD phenotype
- Comorbidities
- History of previous systemic treatments including dupilumab
- Duration of dupilumab treatment
- Reason for dupilumab discontinuation
- Investigator’s global assessment (IGA) score
- Patient-reported outcomes (PROs)
- IGA
- Dermatology Life Quality Index (DLQI)
- Numerical rating scale (NRS)

#### Data collected related to tralokinumab treatment included:
- Duration of treatment
- Dose administered
- Adverse events

### Results

#### Baseline characteristics

- All patients provided written informed consent for the use of their photographs.
- The preparation of this manuscript was supported by a grant from Novartis, Italy.
- All patients were treated in accordance with the local regulatory guidelines (https://www.ismpp.org/gpp).

#### Conclusions

- This case series supports tralokinumab as a potentially effective therapy in patients with moderate-to-severe AD resistant to systemic therapy, including those who have discontinued dupilumab treatment due to lack of efficacy or AE.
- Further studies are needed to investigate the underlying reasons for the differential responses to dupilumab and tralokinumab in some patients.
A Case Series of Live Attenuated Vaccine Administration in Dupilumab-Treated Children With Atopic Dermatitis

Elaine C. Siegfried,1,2 Lara Wine Lee,3 Jonathan M. Spergel,4 Sumeet Uppal,5 Anna Coleman,6 Brad Shumel,5 Randy Prescilla,7 Ashish Bansal,5 Sonya L. Cyr5

1Saint Louis University, St. Louis, MO, USA; 2Cardinal Glennon Children’s Hospital, St. Louis, MO, USA; 3Medical University of South Carolina, Charleston, SC, USA; 4Children’s Hospital of Philadelphia, Philadelphia, PA, USA; 5Regeneron Pharmaceuticals, Inc., Tarrytown, NY, USA; 6Regeneron Pharmaceuticals, Inc., Dublin, Ireland; 7Sanofi, Cambridge, MA, USA

BACKGROUND

- In patients with atopic dermatitis (AD), it is unknown whether suppression of the dysregulated type 2 immune cytokines interleukin-4 and interleukin-13 with dupilumab impacts the risk of vaccine-related infections following live attenuated vaccination.
- Current U.S. regulatory labelling recommends completing age-appropriate vaccinations according to immunization guidelines prior to starting dupilumab and avoidance of live vaccines in patients on dupilumab treatment.
- The LIBERTY AD PRESCHOOL (NCT03346434, part B) study protocol prohibited administration of live attenuated vaccines within 4 weeks before the baseline visit and during treatment.
- The LIBERTY AD PED open-label extension study (OLE; NCT02612454) protocol specified that dupilumab be discontinued 12 weeks prior to live attenuated vaccine administration and could be re-initiated 4 weeks after administration.

OBJECTIVE

- To describe the clinical course of children with severe AD who administered a live attenuated vaccine during the LIBERTY AD PRESCHOOL or LIBERTY AD PED-OLE study.

RESULTS

Table 1. Demographics and Clinical Characteristics at Parent Trial Baseline.

<table>
<thead>
<tr>
<th>Patient</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study site</td>
<td>Poland</td>
<td>USA</td>
<td>USA</td>
<td>USA</td>
<td>USA</td>
<td>UK</td>
<td>UK</td>
<td>UK</td>
<td>USA</td>
</tr>
<tr>
<td>Age, months</td>
<td>56</td>
<td>36</td>
<td>22</td>
<td>43</td>
<td>22</td>
<td>19</td>
<td>20</td>
<td>8</td>
<td>30</td>
</tr>
<tr>
<td>Sex</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>Race</td>
<td>White</td>
<td>Black or African American</td>
<td>Black or African American</td>
<td>White</td>
<td>White</td>
<td>White</td>
<td>White</td>
<td>White</td>
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<tr>
<td>Weight, kg</td>
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<td>13.7</td>
<td>11.7</td>
<td>16.7</td>
<td>9.1</td>
<td>10</td>
<td>11.6</td>
<td>7.8</td>
<td>13.1</td>
</tr>
<tr>
<td>Age at first MMR, months</td>
<td>5</td>
<td>0</td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Duration of AD at enrolment, months</td>
<td>51</td>
<td>36</td>
<td>16</td>
<td>40</td>
<td>22</td>
<td>17</td>
<td>20</td>
<td>5</td>
<td>27</td>
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</table>

Table 2. Vaccines Administered During Dupilumab Trial When Live Attenuated Vaccination Was Administered.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Patient 1</th>
<th>Patient 2</th>
<th>Patient 3</th>
<th>Patient 4</th>
<th>Patient 5</th>
<th>Patient 6</th>
<th>Patient 7</th>
<th>Patient 8</th>
<th>Patient 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphtheria, tetanus, Haemophilus influenzae type b (DTaP)</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
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<tr>
<td>Polio (IPV)</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
</tr>
<tr>
<td>Mumps, measles, rubella (MMR)</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
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<tr>
<td>Varicella</td>
<td>V</td>
<td>V</td>
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<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
</tr>
</tbody>
</table>

Table 3. Clinical Course of Live Attenuated Vaccination and Dupilumab Administration.

<table>
<thead>
<tr>
<th>Event</th>
<th>Patient 1</th>
<th>Patient 2</th>
<th>Patient 3</th>
<th>Patient 4</th>
<th>Patient 5</th>
<th>Patient 6</th>
<th>Patient 7</th>
<th>Patient 8</th>
<th>Patient 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dupilumab dose</td>
<td>200 mg q4w</td>
<td>200 mg q4w</td>
<td>200 mg q4w</td>
<td>200 mg q4w</td>
<td>200 mg q4w</td>
<td>200 mg q4w</td>
<td>200 mg q4w</td>
<td>200 mg q4w</td>
<td>200 mg q4w</td>
</tr>
<tr>
<td>Duration of treatment up to date of live vaccination, days</td>
<td>85</td>
<td>750</td>
<td>840</td>
<td>443</td>
<td>758</td>
<td>617</td>
<td>358</td>
<td>169</td>
<td>485</td>
</tr>
<tr>
<td>Live vaccine name and timing</td>
<td>MMR (1)</td>
<td>MMR (1)</td>
<td>Varicella (2)</td>
<td>MMR (1)</td>
<td>Varicella (2)</td>
<td>MMR (1)</td>
<td>Varicella (2)</td>
<td>MMR (1)</td>
<td>Varicella (2)</td>
</tr>
<tr>
<td>Interval between live vaccination and next dose of dupilumab, days</td>
<td>28</td>
<td>7</td>
<td>12</td>
<td>50</td>
<td>7</td>
<td>85</td>
<td>132</td>
<td>91</td>
<td>91</td>
</tr>
</tbody>
</table>

Table 4. Safety Outcomes of Live Attenuated Vaccination and Dupilumab Administration.

<table>
<thead>
<tr>
<th>Event</th>
<th>Patient 1</th>
<th>Patient 2</th>
<th>Patient 3</th>
<th>Patient 4</th>
<th>Patient 5</th>
<th>Patient 6</th>
<th>Patient 7</th>
<th>Patient 8</th>
<th>Patient 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>AEs</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

CONCLUSIONS

- In this limited retrospective case series of children with severe AD who also received the live attenuated MMR vaccine, with or without live attenuated varicella vaccine, no vaccine-related viral infections or SAEs were observed either in the immediate 4-week period following vaccination or beyond 4 weeks post-vaccination.
- Additional research is needed to assess the safety of live attenuated vaccines in patients on dupilumab treatment, and to investigate whether dupilumab treatment impacts vaccine efficacy.


Presented at the 21st Society of Dermatology Physician Assistants Annual Fall Dermatology Conference (SOPA); October 26–28, 2023. Data included in this poster were previously presented at the Revolutionizing Atopic Dermatitis (RAD) Virtual Conference; December 11, 2021.
INTRODUCTION

Atopic dermatitis (AD) is a chronic, relapsing and pruritic inflammatory skin disorder characterized by pruritus that is substantially impact sleep and quality of life.5 5

Topical corticosteroids (TCS) are effective but are also associated with adverse effects (AEs) that can limit their use.5 5

The efficacy and safety of tapinarof, a novel small molecule that acts on toll-like receptor 2 (TLR2) and TLR6, in the treatment of AD have been investigated in multiple clinical trials.2 3 4

MATERIALS AND METHODS

Study Design and Treatment Session

ADORING 1 and 2 are two single-blind, placebo-controlled trials (Figure 1). Patients with AD were randomized 2:1 to receive tapinarof cream 1% QD (n=271) or vehicle QD (n=135) for 8 weeks. One set of patients aged ≥12 years were also followed for an additional 52 weeks in an extension trial.5

Randomized, Double-Blind, Placebo-Controlled Phase 3 Trials

The primary endpoint of the phase 3 trials was the proportion of patients with AD who achieved ≥4-point reductions in PP-NRS by Week 8.6

RESULTS

Table 1: Baseline Demographics and Disease Characteristics

| Group                | Age ≤ 12 years | Age > 12 years | Total
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tapinarof 1% QD</td>
<td>124 (72.7%)</td>
<td>47 (27.3%)</td>
<td>171</td>
</tr>
<tr>
<td>Vehicle QD</td>
<td>62 (45.9%)</td>
<td>73 (54.1%)</td>
<td>135</td>
</tr>
</tbody>
</table>

The primary endpoint was met with a statistically significant difference between treatment groups for patients with AD aged ≤12 years. The proportion of patients with AD aged ≤12 years who achieved ≥4-point reductions in PP-NRS by Week 8 was 55.8% with tapinarof 1% QD versus 34.2% with vehicle QD (p<0.0001).

Safety

AEs were mostly mild to moderate and lead to low rates of trial discontinuation (lower with tapinarof versus vehicle), demonstrating the predictable safety profile of tapinarof.

CONCLUSIONS

Tapinarof cream 1% QD demonstrated statistically significant efficacy compared with vehicle for the primary and secondary efficacy endpoints in adults and children with AD aged ≤12 years.

REFERENCES

Dupilumab Treatment in Patients With Atopic Hand and Foot Dermatitis: Results From a Phase 3, Randomized, Double-Blind, Placebo-Controlled Trial

Eric L. Simpson1, Jonathan I. Silverberg2, Margitta Worm3, Golara Honari4, Koji Masuda5, Ewa Sygula6, Jennifer Maloney7, Jing Xiao8, Ariane Dubost-Brama9, Ashish Bansal10

1Oregon Health & Science University, Portland, OR, USA; 2The George Washington University School of Medicine and Health Sciences, Washington, DC, USA; 3Charité-Universitätsmedizin Berlin, Berlin, Germany; 4Stanford University School of Medicine, Redwood City, CA, USA; 5Kyoto Prefectural University of Medicine, Kyoto, Japan; 6Andrzej Mielecki Memorial Independent Public Clinical Hospital, Katowice, Poland; 7Regeneron Pharmaceuticals, Inc., Tarrytown, NY, USA; 8Sanofi, Chilly-Mazarin, France

OBJECTIVE

To evaluate the efficacy and safety of dupilumab treatment in patients with atopic hand and foot dermatitis.

METHODS

4-6-week screening 10-week treatment 12-week follow-up

Table 1. Baseline Characteristic

<table>
<thead>
<tr>
<th></th>
<th>Placebo (n = 66)</th>
<th>Dupilumab 200/300 mg q4w (n = 67)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, mean (SD), years</td>
<td>33.4 (14.2)</td>
<td>33.8 (17.1)</td>
</tr>
<tr>
<td>Age group, n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12–17 years</td>
<td>12 (18.2)</td>
<td>14 (20.9)</td>
</tr>
<tr>
<td>≥ 18 years</td>
<td>54 (81.8)</td>
<td>53 (79.1)</td>
</tr>
<tr>
<td>Sex, male, n (%)</td>
<td>28 (42.4)</td>
<td>22 (32.8)</td>
</tr>
<tr>
<td>Race (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>53 (80.3)</td>
<td>53 (79.1)</td>
</tr>
<tr>
<td>Black or African American</td>
<td>4 (6.1)</td>
<td>9 (13.5)</td>
</tr>
<tr>
<td>Asian</td>
<td>8 (12.1)</td>
<td>9 (13.5)</td>
</tr>
<tr>
<td>American Indian or Alaskan native</td>
<td>0</td>
<td>1 (1.5)</td>
</tr>
<tr>
<td>Other</td>
<td>1 (1.5)</td>
<td>1 (1.5)</td>
</tr>
<tr>
<td>Ethnicity (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Hispanic or Latino</td>
<td>63 (95.5)</td>
<td>64 (95.5)</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>2 (3.0)</td>
<td>3 (4.5)</td>
</tr>
<tr>
<td>Unknown</td>
<td>1 (1.5)</td>
<td>0</td>
</tr>
</tbody>
</table>

RESULTS

Table 2. Patient Baseline Disease Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Placebo (n = 66)</th>
<th>Dupilumab 200/300 mg q4w (n = 67)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of atopic hand and foot dermatitis, mean (SD), years</td>
<td>15.4 (13.2)</td>
<td>15.7 (17.0)</td>
</tr>
<tr>
<td>Age of onset of atopic hand and foot dermatitis, mean (SD), years</td>
<td>17.3 (11.1)</td>
<td>20.1 (19.1)</td>
</tr>
<tr>
<td>Morphology of atopic hand and foot dermatitis, n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic, dry fissured</td>
<td>26 (39.4)</td>
<td>37 (55.2)</td>
</tr>
<tr>
<td>Hyperkeratotic</td>
<td>10 (15.2)</td>
<td>10 (15.2)</td>
</tr>
<tr>
<td>Other</td>
<td>21 (31.8)</td>
<td>12 (17.6)</td>
</tr>
<tr>
<td>Number of patients with concomitant AD outside of hands and feet, n (%)</td>
<td>55 (82.8)</td>
<td>46 (68.7)</td>
</tr>
<tr>
<td>IGA for patients with AD outside hand and foot, n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clear</td>
<td>5/66 (7.5)</td>
<td>20/67 (30.0)</td>
</tr>
<tr>
<td>Almost clear</td>
<td>25/66 (38.1)</td>
<td>15/67 (22.4)</td>
</tr>
<tr>
<td>Moderate</td>
<td>35/66 (53.1)</td>
<td>22/67 (32.8)</td>
</tr>
<tr>
<td>Severe</td>
<td>1/66 (1.5)</td>
<td>0/67 (0.0)</td>
</tr>
<tr>
<td>Location of lesions on hands and/or feet, n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hand only</td>
<td>29 (43.9)</td>
<td>29 (43.9)</td>
</tr>
<tr>
<td>Foot only</td>
<td>1 (1.5)</td>
<td>3 (4.5)</td>
</tr>
<tr>
<td>Hand and foot</td>
<td>30 (45.5)</td>
<td>35 (52.2)</td>
</tr>
<tr>
<td>IGA of hand and foot (0–1), n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 (moderate)</td>
<td>41 (62.1)</td>
<td>45 (67.2)</td>
</tr>
<tr>
<td>4 (severe)</td>
<td>18 (27.2)</td>
<td>19 (28.4)</td>
</tr>
<tr>
<td>Hand and foot PP-NRS (0–16), mean (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.3 (1.3)</td>
<td>7.2 (1.5)</td>
<td></td>
</tr>
<tr>
<td>Hand and foot Skin Prick Pain NRS, mean (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.5 (2.3)</td>
<td>6.8 (2.0)</td>
<td></td>
</tr>
<tr>
<td>Sleep quality NRS (0–10), mean (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.6 (1.9)</td>
<td>5.5 (1.9)</td>
<td></td>
</tr>
<tr>
<td>nTLSS for hand and foot (0–38), mean (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.0 (3.9)</td>
<td>17.0 (3.8)</td>
<td></td>
</tr>
<tr>
<td>HESCI (0–100), mean (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>74.0 (14.4)</td>
<td>75.0 (14.0)</td>
<td></td>
</tr>
<tr>
<td>QoLHEQ (0–120), mean (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70.8 (21.8)</td>
<td>74.2 (21.9)</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Rescue Medication Use During 16 Weeks of Treatment

<table>
<thead>
<tr>
<th>Therapeutic class</th>
<th>Placebo (n = 66)</th>
<th>Dupilumab 200/300 mg q4w (n = 67)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients with &gt;1 rescue medication, n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corticosteroids, topical preparations</td>
<td>14 (21.2)</td>
<td>2 (3.0)</td>
</tr>
<tr>
<td>Corticosteroids, topical preparations</td>
<td>1 (1.5)</td>
<td>0</td>
</tr>
<tr>
<td>Immunomodulators</td>
<td>1 (1.5)</td>
<td>0</td>
</tr>
</tbody>
</table>

CONCLUSIONS

- Dupilumab rapidly and significantly improved signs, symptoms, and quality of life in patients with atopic hand and foot dermatitis.
- The safety profile was acceptable and was consistent with the known safety profile of dupilumab in the approved indications.
Efficacy and Safety of Roflumilast Cream 0.15% in Adults and Children Aged ≥6 Years With Mild to Moderate Atopic Dermatitis in Two Phase 3 Trials (INTEGUMENT-1 and INTEGUMENT-2)

Eric Simpson,1 Lawrence Eichenfield,2 Melinda Gooderham,3 Mercedes E. Gonzalez,4 Adelaide Hebert,5 Kim Papp,6 Vimal H. Prajapati,7 David Krupa,8 Patrick Burnett,8 David Berk,8 Robert Higham8

1VA Medical Center & School of Medicine, University of California, Davis, Sacramento, CA and Department of Dermatology, Stanford University, Stanford, CA; 2UCSD Center for Dermatology, Rady Medical Research, and Rady Children's Institute, San Diego, CA; 3Pittsburgh, PA; 4DermaSolv, Inc.; 5Paro Dermatology, Charlotte, NC; 6Powerskin Research LLC, Miami, FL, USA; 7Uwell McCreary Medical School, Houston, TX, USA; 8Preliminary Medical Research and Advanced Clinical Research, Waterdown, ON, and University of Toronto, Toronto, ON, Canada; Dermatology Research Institute, Skin Health & Wellness Centre, University of Calgary, and Fidelity Medical Research, Calgary, AB, Canada; and Arctis Biotherapeutics, Inc., Westlake Village, CA, USA.

INTRODUCTION

• Topical roflumilast is being investigated as a once-daily, nonsteroidal treatment for long-term management of pruritus (roflumilast cream 0.3% U.S. Food and Drug Administration-approved July 29, 2022), atopic dermatitis, and seborrheic dermatitis.

• Topical roflumilast is formulated as a water-based cream:

○ 25- to 30-fold more potent in in vitro assays

○ Results in decreased expression of key proinflammatory cytokines: T-helper (Th)1 (interferon [IFN]-γ), Th2 (interleukin [IL]-4), Th17 (IL-17), IL-17, IL-23

OBJECTIVE

• To present results of 2 phase 3 trials (INTEGUMENT-1 [NCT04773587] and INTEGUMENT-2 [NCT04773600]) of roflumilast cream 0.15% in patients aged ≥6 years with mild to moderate atopic dermatitis.

METHODS

• These were randomized, parallel-group, double-blind, vehicle-controlled, multicenter studies (Figure 1).

RESULTS

• Overall, baseline demographics and disease characteristics were well-balanced (Table 1).

CONCLUSIONS

• Once-daily, nonsteroidal roflumilast cream 0.15% significantly improved atopic dermatitis.

• Significant improvement based on 75% improvement in Eczema Area and Severity Index was observed as early as 1 week after treatment initiation.

• Reduction in pruritus was observed at 24 hours following the first application.

• No AE occurred in more than 3% of patients in either arm with low rates of application-site pain in both the roflumilast- and vehicle-treated patients.

• Once-daily roflumilast cream 0.15% improved atopic dermatitis across multiple efficacy endpoints while demonstrating favorable safety and tolerability in 2 phase 3 trials.

REFERENCES


ACKNOWLEDGMENTS

Thank you to the investigators and their staff for their participation in the trials. We gratefully acknowledge the contributions of trial sites, study participants, the INTEGUMENT 2 investigative site investigators, and the study team, including: N. Reddy, Biopharm Consulting LLC, and funded by Arcutis Biotherapeutics, Inc.

DISCLOSURES

The authors have no conflicts of interest, and no potential conflicts of interest, to disclose. Teddicari and B. D. are employees of Arctis Biotherapeutics, Inc. and are owners of Arctis Biotherapeutics, Inc. All other authors disclose no conflicts of interest. All authors are employees of Arctis Biotherapeutics, Inc. All authors are employees of Arctis Biotherapeutics, Inc. All authors are employees of Arctis Biotherapeutics, Inc.
In the ADORING 1 and 2 phase 3 trials, patients with AD were randomized 2:1 to tapinarof cream 1% or vehicle QD for 8 weeks. In the PSOARING and ADORING trials, the minimal clinically important difference for improvement in PP-NRS (reduction in pruritus) was 2.0. Tapinarof is a first-in-class, non-steroidal, topical aryl hydrocarbon receptor agonist approved by the Food and Drug Administration for the treatment of atopic dermatitis in adults with mild to severe plaque psoriasis in the pivotal phase 3 trials, PSOARING 1 and 2. In ADORING 1 and JETTING466, IC783308, two pivotal identical phase 3, double-blind, randomized, vehicle-controlled trials, tapinarof cream 1% GD demonstrated highly statistically significant efficacy and was well-tolerated in adults and children aged 2 years and older. The Final Pain Numeric Rating Scale (FP-NRS) is a well-defined and validated patient-reported instrument for evaluating the intensity of pruritus in the past 24 hours. In the PSOARING and ADORING trials, the minimal clinically important difference for improvement in FP-NRS (reduction in pruritus) was 6 points; however, no patient difference may be considered clinically meaningful.

**OBJECTIVE**

To evaluate time to onset of itch relief in the placebo phase 3 trials with tapinarof cream 1% GD in the treatment of adults and children ages 2 years and older.

**MATERIALS AND METHODS**

**Trial Design**

In the ADORING 1 and 2 phase 3 trials, patients with AD were randomized 2:1 to tapinarof cream 1% or vehicle QD for 8 weeks (Figure 1). Following the double-blind period, patients could enrol in an open-label, long-term extension (ADORING 2) or complete follow-up visit 1 week after the end of the treatment period (ADORING 1). Patients with atopic dermatitis were aged ≥12 years, had a history of AD lasting ≥1 year, and an investigator's global assessment (IGA) score of ≥2 at baseline. The primary endpoint was the time to onset of itch relief (≤0.5 mean daily PP-NRS scores from baseline) in the placebo-controlled group after the initial application of vehicle at Day 1, 24 hours after initial application in ADORING 1 (–1.2 [2.2] vs –0.9 [2.0]) and Day 2 in ADORING 2 (–1.6 [2.4] vs –1.4 [2.1]). Significant improvements in mean daily PP-NRS scores with tapinarof versus vehicle were observed for all visits through Week 8. Mean change in PP-NRS score from baseline at Weeks 1, 2, 4, and 8 was calculated (Table 1).

**RESULTS**

**Patients with atopic dermatitis**

- Aged ≥12 years
- U%-AAD2 (N=271)
- EASI score (N=271)
- BSA ≥5%-36%

**Table 1. Baseline Demographics and Disease Characteristics**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>ADORING 1 (N=406)</th>
<th>ADORING 2 (N=407)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years</td>
<td>15.6 (16.5)</td>
<td>15.3 (16.7)</td>
</tr>
<tr>
<td>Weight, kg</td>
<td>47.7 (29.1)</td>
<td>47.7 (27.7)</td>
</tr>
<tr>
<td>BMI, kg/m²</td>
<td>17.1 (8.7)</td>
<td>16.5 (7.9)</td>
</tr>
<tr>
<td>Blood eosinophils, %</td>
<td>6.5 (5.9)</td>
<td>6.7 (6.0)</td>
</tr>
<tr>
<td>Baseline IGA score</td>
<td>4.1 (0.5)</td>
<td>4.1 (0.5)</td>
</tr>
</tbody>
</table>
| Patient who achieved the primary endpoint and an itch-free state at Week 4

**CONCLUSIONS**

- Tapinarof cream 1% GD demonstrated rapid and early onset of itch relief from 24 hours after initial application, with improvements increasing through Week 8 from its initial use in adults and children down to 2 years with AD.
- Significant improvements in pruritus were seen as early as Week 1 and continued through Week 8.
- The minimal clinically important difference of 4.0 points was exceeded in the tapinarof groups at Week 8.
- Tapinarof was well tolerated; TEAEs were consistent with those seen in previous trials, and tapinarof discontinuation rates were lower with tapinarof versus vehicle.
- Tapinarof is a non-interfering topical medication with the potential to be used for the treatment of patients 2 years of age and older, without restrictions on duration, extent, or dose of application.
BACKGROUND

• Tear trough deformity, dark circles and reduced volume, can result in ‘hollowing’ around the eye

• Injection of hyaluronic acid (HA) filler is a minimally invasive approach to address correction of infraorbital hollows (IOH)

AIM

• To evaluate effectiveness and safety of HAEYE, an HA filler with high gel strength (G’), to correct IOH

METHODS

Study design

• Randomized, evaluator-blinded, no-treatment controlled, multicenter study (NCT04154930)

• Subjects aged ≥21 years with moderate-to-severe IOHs on the Galderma Infraorbital Hollows Scale (GIHS)

Treatment

• Randomized: 6:1 HA EYE: no treatment (control)

• ≤1 mL HAEYE was injected into each IOH using a needle or a cannula, with optional touch-up at 1 Month

Primary endpoint

• GIHS responder rate at Month 3 (subjects achieving ≥50% improvement from baseline in hollowness score on the 4-point GIHS, on both sides of the face, concurrently)

• GIHS responder rate up to 12 months post treatment

Other endpoints

• GIHS responder rate up to 12 months post treatment

• Global Aesthetic Improvement Scale (GAIS) improvement

• FACE-Q™ Satisfaction with Outcome Rasch-transformed total scores

• Safety, collection of adverse events at all visits

RESULTS

Study subjects

• 333 subjects were randomized at baseline; 287 to HAEYE and 46 to no-treatment (control)

• Most subjects were female (67.1%) and white (88.9%)

• Mean age = 44.4 y (range 22–73 y)

• All subjects had GIHS scores of moderate (51.4% right; 52.3% left) or severe (48.6% right; 47.7% left) at baseline

IOH hollowness improvement (GIHS responder rate)

• Primary endpoint: GIHS response rate at Month 3 was statistically significantly higher with HAEYE, 87.4%, vs. no treatment, 17.7%; *P<0.001†

• Responder rates at Month 3 were comparable after HAEYE administration with needle (86.6%, N=113) or cannula (84.4%, N=95)

• The GIHS responder rate remained statistically significantly higher for HAEYE vs. controls at Months 6, 9 and 12 (P<0.001), Figure 1

Aesthetic improvement (investigator-assessed GAIS)

• GAIS responder rate was 97.4% for HAEYE at Month 1, and rose to 99.5% after the optional Month 1 touch-up (N=199), 87.5% were still GIHS responders at Month 12

• Subject satisfaction with outcome (FACE-Q)

• Mean FACE-Q total scores ranged between 64.3 and 73.5 in the HAEYE-pooled group compared to between 14.1 and 16.2 in the control group from Month 1 through Month 12, Figure 2

Safety outcomes

• Treatment or procedure-related adverse events were reported by 40 (12.7%) HAEYE recipients through Month 12

• Most treatment-related adverse events were at the site of administration (Table 1)

CONCLUSIONS

• Treatment with HAEYE was well-tolerated and highly effective for correction of moderate and severe IOH, with high rates of aesthetic improvement and subject satisfaction, maintained throughout 12 months

• Retreatment with HAEYE at Month 12 provided further aesthetic rejuvenation in the infraorbital region

Figure 1. GIHS responder rate, blinded assessor (observed cases; ITT population)

Figure 2. FACE-Q Satisfaction with Outcome, total Rasch-transformed scores, ITT population

Table 1. Most common treatment-related adverse events after HAEYE treatment, occurring in ≥5 subjects

<table>
<thead>
<tr>
<th>Event Description</th>
<th>Number of subjects (%) (N=316)†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implant site swelling</td>
<td>12 (3.8)</td>
</tr>
<tr>
<td>Implant site pain</td>
<td>8 (2.5)</td>
</tr>
<tr>
<td>Headache</td>
<td>7 (2.2)</td>
</tr>
<tr>
<td>Implant site bruising</td>
<td>5 (1.6)</td>
</tr>
<tr>
<td>Implant site mass</td>
<td>4 (1.3)</td>
</tr>
<tr>
<td>Implant site edema</td>
<td>4 (1.3)</td>
</tr>
<tr>
<td>Implant site pruritus</td>
<td>2 (0.6)</td>
</tr>
</tbody>
</table>

† Migraine was assessed at ITT population and multiple imputation. P-value from Cochran-Mantel-Haenszel test stratified by site is shown below.
**Rationale**

- While rare in clinical practice, there has been recent attention on delayed-onset (>14 days) nodules and inflammatory reactions to hyaluronic acid (HA) fillers which prompted updates to the FDA dermal filler warnings. 
- Because of this increased awareness, it is important to review how often these delayed events are reported for HA fillers on the market.

**Methodology**

- Post-marketing safety surveillance reports for HA nudex from a global manufacturer database were collected between 1999 - 2022.
- Adverse events are voluntarily reported.
- Medically experts assessed the relationship to the product and coded events using MedDRA PT (Medical dictionary for Regulatory Activities Preferred Terms).
- Events were categorized based on MedDRA PT keywords within reports (Table 1) and final classification was based on inclusion and exclusion criteria (Table 2).
- The total number of syringes sold worldwide from 2010 (earliest available data) to 2022 was used for calculating DAEI reporting frequencies.

**Objective**

- Analyze long-term (23-year) global post-marketing safety surveillance data to report frequencies of delayed adverse events of interest (DAEIs) related to nadvex injection in all anatomical areas, including the IOH.
- DAEIs included: inflammatory and non-inflammatory nodules, hypersensitivity reactions, and granulomas (Figure 1).

**Results**

- Over the past 23 years, approximately 3% (227,972) of reports containing 254 DAEIs met the search criteria.
- About half (52%, n=134) were hypersensitivity reactions followed by non-inflammatory nodules (26%, n=112), inflammatory nodules (18%, n=46), and granulomas (4%, n=10) (Figure 2).
- Each class of event had low reporting frequencies (<0.001%, Figure 2).
- Median time to onset: 2 months (ranged from 15 days to 3 years).
- 78/256 (30%) DAEIs occurred in the IOH (Figure 2).
- 65% (n=51) of those were hypersensitivity reactions, followed by inflammatory nodules (26%, n=46), non-inflammatory nodules (9%, n=7), and granulomas (1%, n=1).
- Median time to onset: 2.2 months (ranged from 15 days to 14 months).

**Conclusions**

- Long-term (23-year) safety review confirms a favorable safety profile for nadvex in clinical practice over the past 23 years.
- There were low reporting frequencies (<0.001%) of hypersensitivity reactions, inflammatory and non-inflammatory nodules, and histologically confirmed granulomas.
- While DAEIs are under-reported due to their voluntary nature, knowing that HA is often used for IOH rejuvenation, the low numbers of reports for DAEIs in that area should reassure injectors of the product’s safety.

**References**

Background

- Malignancy is the third leading cause of death in solid organ transplant recipients. Currently, cutaneous squamous cell carcinoma is the most common neoplasm found in transplant patients and is associated with increased morbidity and mortality.

- Challenges remain in clinical practice to identify patients at higher risk of developing metastatic cutaneous squamous cell carcinoma.

Objectives

- The primary outcome of this study is to investigate known risk factors for squamous cell carcinoma and determine predictive variables for metastasis in the context of immunosuppressed solid organ transplant recipients.

- The results of this study will enable clinicians to accurately identify transplant patients at an increased risk of metastatic cutaneous squamous cell carcinoma and decrease mortality in this population.

Methods

- The Organ Procurement Transplant Network (OPTN) database contains pre-transplant and post-transplant data on every transplant event occurring in the United States.

- Eligible participants will be identified using the Standard Transplant Analysis and Research file, based on OPTN for the period January 1, 1991, to July 30, 2022.

- The number of patient cases reported from our institution to OPTN is 2546. Chart review of these 2546 cases yielded 16 patients with metastatic cutaneous squamous cell carcinoma.

Results

- Of 2546 reported transplant cases at our institution, 16 (<1%) patients were found to have metastatic cutaneous squamous cell carcinoma.

- Most patients were male (14 (88%)) with an average age of 59 years at time of transplant and more than half (10 (62%)) did not report having a vocational history that involves sun exposure.

- On average, the time from transplant to metastatic event was about 7 years while time from metastatic event to death was 9.25 months.

- Of the patients in our study, almost half (43%) died because of their metastatic cutaneous squamous cell carcinoma.

- Finally, none of the 16 patients reported receiving the HPV vaccine.

Average Time from Transplant to Diagnosis and Death of Metastatic cSCC

- Figure 2 shows the mean time in years between transplant to SCC diagnosis, transplant to metastatic event, SCC diagnosis to metastatic event, and metastatic event to death among the cohort. Abbreviations, SCC=squamous cell carcinoma, Met event=metastatic event.

Conclusion

- To conclude, our study findings are largely consistent with the current literature on known risk factors of cutaneous squamous cell carcinoma (cSCC) in organ transplant recipients.

- In addition, analysis of our sample leads one to wonder if HPV vaccination may be a protective factor against cSCC development in this population.

- With most organ transplant recipients developing cSCC within 7 years of transplant, close and frequent monitoring of patients in a dermatology clinic is imperative in early diagnosis of treatment in cSCC and decreasing mortality.

- More studies are needed to examine screening protocols and other preventative measures in organ transplant recipients and cSCC.
Triple-Combination Fixed-Dose Clindamycin Phosphate 1.2%/Adapalene 0.15%/Benzoyl Peroxide 3.1% for Moderate-to-Severe Acne: Efficacy and Safety Results from a Pooled Phase 3 Analysis

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SYNOPSIS AND OBJECTIVE

A three-prolonged approach to acne treatment that combines an antibiotic, a retinoid, and an antimicrobial agent in a single formula may be more efficacious than monotherapy or dual combinations, while potentially reducing antibiotic resistance.

Clindamycin phosphate 1.2%/adapalene 0.15%/benzoyl peroxide (BPO) 3.1% polymeric mesh gel (IDP-126) is the first fixed-dose triple-combination topical in development.

IDP-126 demonstrated superior efficacy to vehicle and component dyads, with good safety/tolerability in a phase 2 and two phase 3 studies of moderate-to-severe acne.1-3

This post hoc analysis examined efficacy, safety, and impact on quality of life of IDP-126 in data pooled from the phase 3 studies.

METHODS

In two identical phase 3, double-blind, randomized studies (NCT04124619; NCT01442652), participants aged 12 years with moderate-to-severe acne were randomized 2:1 to receive IDP-126 or vehicle gel once daily for 12 weeks.

Carafix hydrating cleanser and Carafa moisturizing lotion (Dowell, NY) were provided as a nonclinical skin moisturization/washing

Endpoints included treatment success (≥2 grade reduction from baseline in Investigator’s Global Severity Score (EGSS) and at least clear skin); least squares mean percent change from baseline in inflammatory/noninflammatory lesion counts, and the Acne-Specific Quality of Life questionnaire (Acne-QoL).

RESULTS

Of the 363 participants in the pooled population, a majority were female (58.4%) and White (73.6%), with a mean age of 25.3 years.

More than 90% of participants had moderate disease (EGSS=3) at baseline.

Efficacy and Quality of Life

At week 12, half of participants treated with IDP-126 achieved treatment success versus less than one quarter treated with vehicle (P<0.01, Figure 1A).

At week 12, IDP-126 resulted in >70% reductions in both inflammatory and noninflammatory lesion counts at vehicle versus baseline, with figures (B, C).

Lessen reductions were significantly greater with IDP-126 versus vehicle as early as week 4.

Acne-QoL improvements from baseline to week 12 were significantly greater with IDP-126 than vehicle across all four domains (Figure 2).

Images of representative IDP-126-treated participants are shown in Figure 3 Safety

TABLE 1: Summary of Adverse Events Through Week 12 Safety Population

<table>
<thead>
<tr>
<th>Events</th>
<th>IDP-126 Gel (n=214)</th>
<th>Vehicle Gel (n=127)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discontinued study due to TEAE</td>
<td>12 (5.6%)</td>
<td>0</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>TEAE severity</td>
<td>Moderate 10 (4.6%)</td>
<td>2 (1.5%)</td>
<td>0.023</td>
</tr>
<tr>
<td>Severe</td>
<td>3 (1.4%)</td>
<td>0</td>
<td>0.016</td>
</tr>
</tbody>
</table>

IDP-126 Gel (n=214); Vehicle Gel (n=127); IDP=126 gel; SAE, serious adverse event; ITT, intent to treat; LS, least squares.

FIGURE 1. Treatment Success at Week 12 and Lesion Reductions From Baseline Study (ITT Population, Pooled)

| Percentage of Participants | Baseline | Week 12 | Week 12 vs. Baseline
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IDP-126 Gel</td>
<td>Vehicle Gel</td>
<td>IDP-126 Gel</td>
<td>Vehicle Gel</td>
</tr>
<tr>
<td><strong>EGSS=3</strong></td>
<td>78%</td>
<td>50.0%</td>
<td><strong>-50.5%</strong></td>
</tr>
<tr>
<td><strong>IDP-126 Gel</strong></td>
<td><strong>22.6%</strong></td>
<td><strong>40.0%</strong></td>
<td><strong>+18.4%</strong></td>
</tr>
</tbody>
</table>

**Value has been adjusted for multiple imputation. N values were: IDP-126, 242; Vehicle, 121.***

FIGURE 2. Acne-Qol Improvements at Week 12 (ITT Population, Pooled)

<table>
<thead>
<tr>
<th>Acne-QoL Domain</th>
<th>Baseline</th>
<th>Week 12</th>
<th>Change from Baseline</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-perception</td>
<td>25</td>
<td>32</td>
<td>+7.8</td>
<td><strong>&lt;0.001</strong></td>
</tr>
<tr>
<td>Role-emotional</td>
<td>30</td>
<td>26</td>
<td>-4.0</td>
<td><strong>&lt;0.001</strong></td>
</tr>
<tr>
<td>Role-social</td>
<td>20</td>
<td>13</td>
<td>-7.0</td>
<td><strong>&lt;0.001</strong></td>
</tr>
<tr>
<td>Acne symptoms</td>
<td>30</td>
<td>22</td>
<td>-8.0</td>
<td><strong>&lt;0.001</strong></td>
</tr>
</tbody>
</table>

**p<0.05***

No episode of missing data.

Baseline values indicate lower scores and therefore indicate better quality of life.

IDP-126 Gel: **p<0.001** versus Vehicle Gel.

FIGURE 3. Acne Improvements with IDP-126 Gel

<table>
<thead>
<tr>
<th>10-Year-Old Female – Black, Not Hispanic/Latino</th>
<th>Baseline</th>
<th>Week 12</th>
<th>Change from Baseline</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EGSS: 3 (moderate)</strong></td>
<td>37</td>
<td>0</td>
<td><strong>-100%</strong></td>
<td><strong>&lt;0.001</strong></td>
</tr>
<tr>
<td><strong>IDP-126 Gel</strong></td>
<td><strong>5 (-83.9%)</strong></td>
<td><strong>0 (-100%)</strong></td>
<td><strong>-100%</strong></td>
<td><strong>&lt;0.001</strong></td>
</tr>
</tbody>
</table>

**p<0.05***

No episode of missing data.

Baseline values indicate lower scores and therefore indicate better quality of life.

IDP-126 Gel: **p<0.001** versus Vehicle Gel.

REFERENCES


AUTHOR DISCLOSURES

All authors disclose no financial relationships. Inquiries should be directed to the corresponding author, Linda Stein Gold, MD, 301-751-7738, linda.stein.gold@medstar Georgetown.edu.
**RESULTS**

**Patient Population**

In this analysis of the pooled phase 3 trials, 54 target plaques (HP/TAZ, n=34; vehicle, n=20) had severe elevation and 57 target plaques (HP/TAZ, n=37; vehicle, n=20) had severe scaling. Similarly, in the previous analysis, 44 target plaques had mild elevation (HP/TAZ, n=30; vehicle, n=14) and 38 target plaques had mild scaling (HP/TAZ, n=36; vehicle, n=12).

**Efficacy**

**Plaque Elevation and Scaling Success**

At week 8, HP/TAZ was associated with significantly greater rates of plaque elevation success in severely elevated plaques (72.9% vs 21.7%; 95% CI: 0.004; Figure 1A) and scaling success in severely scaled plaques (71.9% vs 26.6%; P < 0.008; Figure 1B) relative to vehicle.

**Treatment Success**

Additionally, at week 8, the rate of plaque elevation success in severely elevated plaques was numerically greater than that previously observed in mildly elevated plaques (72.9% vs 41.3%). Similarly, the rate of scaling success in severely scaled plaques was numerically greater than that achieved in mildly scaled plaques (71.9% vs 32.0%).

**Safety**

Similar rates of treatment-emergent adverse events were observed across groups (Table). There were no serious treatment-emergent adverse events in any mild or severe subgroup.

**Conclusions**

This post hoc analysis suggests that HP/TAZ is effective in treating hyperkeratotic psoriatic plaques with severe elevation or scaling. These results provide evidence for HP/TAZ as a therapeutic option to improve elevation and scaling in severely affected plaques, which often pose a challenge in psoriasis management.

**References:**


Objective
To report maintenance of response over 3 years in patients who achieved complete or near-complete skin clearance after 16 weeks of Bimekizumab (BKZ) treatment from four phase 3/3b trials.

Introduction
- BKZ, a monoclonal IgG antibody that selectively inhibits interleukin-17A in addition to IL-17F, has demonstrated rapid and superior efficacy in the treatment of patients with moderate to severe plaque psoriasis in head-to-head studies versus adalimumab, etanercept, and secukinumab, with established long-term durability of response.1
- As psoriasis is a chronic disease and loss of response to therapies can occur over time, studying long-term efficacy of new treatments is important.
- Maintenance of responses through 3 years of BKZ 320 mg treatment, in psoriasis patients who achieved complete or near-complete skin clearance after 16 weeks of treatment, has been shown previously in patients from BE BRIGHT, BE RADIANT phase 3 trials, their ongoing open-label extension (OLE), BE BRIGHT, as well as the BE RADIANT phase 3 trial (16-wk double-blind period); 90% OLE Week 16.2-6

Methods
- Data were pooled for all patients who were randomized to BKZ at the start of the study in BE SURE, BE READY, BE VIVID, and BE RADIANT, achieved a PASI 90, PASI 100, or IGA 0/1 response, respectively, at Week 16, with patients included across five phase 3/3b trials.
- BKZ provided long-term maintenance of disease control up to 3 years in patients with moderate to severe plaque psoriasis.

Results
- All patients (N=995) in the Q4W/Q8W/Q8W subset. Year 1 refers to Week 96, and Year 2 refers to Week 144. Year 3 refers to Week 192.
- Data were pooled for all patients who were randomized to BKZ at the start of the study in BE SURE, BE READY, BE VIVID, and BE RADIANT, achieved a PASI 90, PASI 100, or IGA 0/1 response, respectively, at Week 16, with Week 16 responses are reported for all BKZ-randomized patients; response rates from Week 16 up to Year 3 (Week 144) are reported, respectively.
- PASI 90 responders (mNRI) at Week 16 and Year 1/2/3, respectively.
- PASI 90 responders N=995 N=348 N=348
- IGA 0/1 responders N=985 N=345 N=345

Conclusions
- Pooled data from five trials found that, among Week 16 responders, high clinical responses were maintained through 3 years of BKZ 320 mg treatment. High levels of response were also maintained in those patients who received BKZ 160 mg/Q4W/HRI, the approved dosing regimen for most patients with psoriasis.4

References
Introduction

- Atopic dermatitis (AD) is more prevalent in children than adults, with an unmet need for more treatments for moderate-to-severe disease.

- The tralokinumab -a biologic that targets IL-31 receptor alpha (IL-31Ra) - is a fully human monoclonal antibody that selectively binds to and neutralizes the natural ligand, IL-31, which is involved in chronic inflammatory processes.

- In the ECZTRA 6 trial (NCT03526861), greater proportions of adolescents (aged 12-17 years) receiving tralokinumab achieved the primary endpoints of IGA 0/1 response (as observed) vs placebo (P=0.001) and % EASI improvement vs placebo (P<0.001) at Week 16 without use of rescue medication.

- At Week 52, high maintenance of response (IGA 0/1, EASI 75, 80, 90) was observed across all tralokinumab dose groups and 300 mg (QW) and 300 mg (Q2W) tralokinumab among subjects achieving the primary endpoints at Week 16.

- Patients not achieving the primary endpoints at Week 16 continued on tralokinumab 300 mg Q2W or 300 mg QW and achieved similar IGA 0/1 response or % EASI improvement strength during Weeks 16–24. Week 52, IGA 0/1 was achieved (34.5% vs 30.5%) and EASI 75 by 22.4%–23.7% of these patients transforming from the 150 mg and 300 mg dose regimens.

- Patients completing ECZTRA 6 (n=45) in the open-label extension trial (ECZTRA7; NCT03526867), were eligible to enter ECZTEND.

Materials and Methods

ECZTRA Study design

- ECZTEND is an open-label, 54-week extension trial including adult and adolescent patients with AD in 11 countries who previously participated in the tralokinumab parent trials (ECZTRA 1–6) as the TDI Investigator-extension study (NCT03526862).

- In ECZTEND, after an initial 300 mg loading dose, adolescent patients received tralokinumab 300 mg Q2W or 150 mg QW until the end of the study.

- Tralokinumab at 300 mg Q2W dose (≥ 24 months of age) was selected for enrollment in ECZTEND based on the time to 50% clinical improvement (ECZTRA 6) and to extend safety and efficacy observations from the ECZTRA trials.

- Patient demographic characteristics are presented in Table 2.

- Adolescent cohort

- The adolescent analyses presented here include all patients from ECZTRA 6 enrolled in ECZTEND, who had up to 3 years of tralokinumab treatment at data cutoff April 30, 2022 (Week 12 in ECZTRA 6 plus up to 36 weeks in ECZTEND; Table 1).

- Adolescent cohort

- The adolescent analyses presented here include all patients from ECZTRA 6 enrolled in ECZTEND, who had up to 3 years of tralokinumab treatment at data cutoff April 30, 2022 (Week 12 in ECZTRA 6 plus up to 36 weeks in ECZTEND; Table 1).

Outcomes

- Safety: AE-related discontinuation

- Efficacy: Proportion of patients achieving IGA 0/1 (as observed) and mNRI (as observed) and EASI improvement from IT base-line at Week 56 (as observed).

- Patients with mNRI ≥ 24 months were eligible to enroll in ECZTEND.