Deucravacitinib Improves Psoriasis Symptoms and Signs Diary Domain Scores in Patients With Moderate to Severe Plaque Psoriasis: Results From the Phase 3 POETYK PSO-1 and POETYK PSO-2 Studies

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Introduction

Tyrocy kinase 2 (TYK2) is an intracellular kinase that mediates signaling of key cytokines ( interferon-β [IFN-β], IL-6, and Type I interferons [IFNs]). Involved in psoriatic pathogenesis, deucravacitinib is a novel, oral, and selective inhibitor that binds to the regulatory domain of TYK2, and thereby via an allosteric mechanism inhibits signaling of IL-23, IL-12, and Type I IFN.1

In the Phase 3 POETYK PSO-1 and PSO-2 trials, deucravacitinib demonstrated superiority compared with placebo and apremilast for multiple endpoints, including clinical and patient-reported outcomes1—Results from the Psoriasis Symptoms and Signs Diary (PSSD) focusing on patient-reported symptoms was previously described at the 2021 American Academy of Dermatology Annual Meeting.2

Objectives

To compare the effect of deucravacitinib vs placebo and vs apremilast on item-level change over time with regard to patient-reported psoriasis symptoms and signs measured by the PSSD, and to further evaluate the contribution of individual subdomains on symptom and sign scores in POETYK PSO-1 and PSO-2

Methods

Study designs

POETYK PSO-1 (NCT03624127) and PSO-2 (NCT03611751) were 52-week, randomized, double-blind, placebo-controlled, parallel-group trials in patients ≥18 years with moderate to severe plaque psoriasis (body surface area [BSA] involvement ≥10% to < 30%). Patients were randomized to receive deucravacitinib 6 mg QD (n=511), deucravacitinib 6 mg QID (n=168), or apremilast 30 mg BID (n=168). Treatment lasted for 52 weeks, with a 14-week double-blind treatment period followed by a 18-week open-label extension. Efficacy was evaluated using POETYK PSO-1 and -PSO-2 Psoriasis Severity and Signs Diaries (PSSD).

Results

Baseline disease characteristics

A total of 666 and 1020 patients were randomized in PSO-1 and PSO-2, respectively.2

In both trials, PSO-1 total and symptom and sign scores were similar across groups at baseline (Table 1).2

Table 1. Baseline PSSD total and summary scores

<table>
<thead>
<tr>
<th>PSSD score</th>
<th>POETYK PSO-1 (n=511)</th>
<th>POETYK PSO-2 (n=168)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>53.4</td>
<td>52.9</td>
</tr>
<tr>
<td>Symptom</td>
<td>(51.0, 56.0)</td>
<td>(50.0, 54.0)</td>
</tr>
<tr>
<td>Sign</td>
<td>55.3</td>
<td>55.0</td>
</tr>
<tr>
<td>(53.0, 57.0)</td>
<td>(53.0, 57.0)</td>
<td></td>
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</tbody>
</table>

The greatest improvements in psoriasis symptoms were observed for itch, skin tightness, and pain with both deucravacitinib and apremilast. The greatest improvements in psoriasis signs were observed for dryness, scaling, and shedding or flaking.3

Conclusions

In this post hoc analysis, deucravacitinib treatment was significantly superior to placebo and apremilast in improving individual patient-reported psoriasis symptoms and signs at Week 16 in patients with moderate to severe plaque psoriasis.

References


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Relationships and Activities

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