Efficacy of povorcinib for the treatment of vitiligo by patient demographics and baseline clinical characteristics: Week 52 subgroup analysis from a randomized, placebo-controlled, phase 2b clinical trial

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Introduction/Background: Povorcinib—an oral, small-molecule, selective Janus kinase 1 inhibitor—was statistically superior to placebo at Week 24 in patients with nonsegmental vitiligo in a phase 2b clinical trial (NCT04818346).

Objectives: To evaluate the efficacy of povorcinib in subgroups of patients with nonsegmental vitiligo defined by demographics and baseline clinical characteristics.

Methods: Adults with nonsegmental vitiligo affecting ≥0.5%/≥8% facial/total body surface area (F-BSA/T-BSA) were randomized 1:1:1:1 to once-daily povorcinib 15/45/75 mg or placebo for 24 weeks; subsequently, patients received povorcinib 45/75 mg for an additional 28 weeks. The percentage of patients achieving ≥50% reduction from baseline in total Vitiligo Area Scoring Index (T-VASI50) and ≥50% and ≥75% reduction in facial-VASI (F-VASI50 and F-VASI75, respectively) were assessed by demographics and baseline characteristics. Data were analyzed using descriptive statistics; missing values were considered nonresponders.

Results: In total, 171 patients were randomized; at baseline, median (range) age was 50 (23–74) years, mean (SD) disease duration was 19.4 (14.0) years, and mean (SD) T-VASI was 25.5 (19.1). Subgroup analyses were conducted among the 103 patients who received any dose of povorcinib from Day 1. At Week 52, 35/103 (34.0%) evaluable patients who received povorcinib 15/45/75 mg achieved T-VASI50, 63/103 (61.2%) achieved F-VASI50, and 47/103 (45.6%) achieved F-VASI75. T-VASI50 responses were consistent within subgroups defined by age (≤40/>40 years, 42.9%/30.7%), sex (male/female, 23.8%/41.0%), race (White/Non-White, 31.6%/41.7%), Fitzpatrick skin type (I–III/IV–VI, 31.4%/39.4%), F-BSA (≤1.5%/>1.5%,...
30.4%/41.2%), T-BSA (≤20%/>20%, 35.4%/32.7%), autoimmune comorbidities (Yes/No, 37.9%/32.4%), disease duration (≤10/10–20/>20 years, 41.7%/13.0%/38.6%), and previous therapy (Yes/No, 34.4%/30.0%). Similar findings were observed for F-VASI50 and F-VASI75.

**Conclusions:** Patients receiving povorcitinib achieved T-VASI50, F-VASI50, and F-VASI75 responses regardless of demographics or baseline clinical characteristics. Results should be confirmed in larger populations.

**Keywords:** JAK1 inhibitor, INCB054707, repigmentation, subgroup, vitiligo

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