Switching From Dupilumab to Abrocitinib in Patients With Moderate-to-Severe Atopic Dermatitis: An Analysis of Responders and Nonresponders to Dupilumab

Jonathan I. Silverberg,[1] Eric L. Simpson,[2] Jacob P. Thyssen,[3] Andrew E. Pink,[4] Stephan Weidinger,[5] Gary Chan,[6] Irina Lazariciu,[7] Claire Clibborn,[8] Erman Guler[9]

[1]The George Washington University School of Medicine and Health Sciences, Washington, DC, USA; [2]Oregon Health & Science University, Portland, OR, USA; [3]Bispebjerg Hospital, University of Copenhagen, Copenhagen, Denmark; [4]St. John's Institute of Dermatology, King's College London and Guy's and St Thomas' NHS Foundation Trust, London, UK; [5]University Hospital Schleswig-Holstein, Kiel, Germany; [6]Pfizer Inc., Groton, CT, USA; [7]IQVIA, Kirkland, Quebec, Canada; [8]Pfizer Ltd., Surrey, UK; [9]Pfizer Inc., Istanbul, Turkey

Background: Abrocitinib, an oral, once-daily Janus kinase 1-selective inhibitor, had a superior efficacy versus dupilumab in head-to-head randomized trials in moderate-to-severe atopic dermatitis (AD). Data on patients who switched from dupilumab to abrocitinib have been limited.

Objective: To evaluate abrocitinib response in patients with moderate-to-severe AD who were responders or nonresponders to dupilumab.

Methods: Dupilumab-treated patients from JADE DARE trial (NCT04345367), which was designed to compare efficacy and safety of 26-week abrocitinib (200 mg daily) versus dupilumab (300 mg bi-weekly) in patients receiving topical medicated therapy, had an option to switch to abrocitinib 200 mg by enrolling to an open-label JADE EXTEND trial (NCT03422822). In this analysis, we evaluated the response to abrocitinib 200 mg at week 12 of JADE EXTEND of responders and nonresponders to dupilumab at week 26 of JADE DARE. Response and nonresponse were defined as patients' achievement and nonachievement, respectively, of ≥50%, ≥75%, or ≥90% improvement from JADE DARE baseline in Eczema Area and Severity Index (EASI-50, EASI-75, or EASI-90), ≥4-point improvement from JADE DARE baseline in Peak Pruritus Numerical Rating Scale (PP-NRS4), and PP-NRS score of 0 or 1 (PP-NRS 0/1) at week 26 of JADE DARE. In addition, changes in individual EASI and PP-NRS scores were

evaluated in dupilumab-treated patients with significant skin lesions (EASI ≥16) or itch burden (PP-NRS ≥7) at week 26 of JADE DARE. Patients who withdrew from JADE EXTEND were considered nonresponders after withdrawal. Additionally, adverse events (AEs) of dupilumab-treated patients from JADE DARE occurring during JADE EXTEND were assessed.

Results: Out of 365 dupilumab-treated patients in JADE DARE, 312 received treatment in JADE EXTEND. After 12 weeks of switching to abrocitinib, EASI-50 response was maintained in 98% of patients (277/282) who had attained EASI-50 after 26 weeks of dupilumab. Those values were 95% (232/245) for EASI-75, 88% (143/162) for EASI-90, 91% (192/210) for PP-NRS4, and 79% (86/109) for PP-NRS 0/1. Conversely, among patients who did not attain EASI-50 after 26 weeks of dupilumab, switching to abrocitinib for 12 weeks resulted in 75% (12/16) of patients attaining this level of response. Those values were 77% (41/53) for EASI-75, 62% (85/136) for EASI-90, 51% (46/90) for PP-NRS4, and 45% (86/192) for PP-NRS 0/1. Among dupilumab-treated patients with EASI ≥16 at week 26 of JADE DARE, 91% (10/11) experienced improvements (ie, EASI <16), after switching to abrocitinib for 12 weeks; in two such patients, score changes were consistent with ≥97% improvement in EASI from JADE DARE week 26 to JADE EXTEND week 12 (from 45.5 to 0 and from 42.3 to 1.4). Among patients with PP-NRS ≥7 at JADE DARE week 26, 75% (12/16) showed an improvement (ie, PP-NRS score <7), 12 weeks after switching to abrocitinib; 3 such patients achieved PP-NRS score of 0 or 1. During JADE EXTEND, 57% (178/312) of patients who previously received dupilumab experienced AEs and 3% (9/312) experienced serious AEs.

Conclusion: Most patients with moderate-to-severe AD who switched from dupilumab to abrocitinib after 26 weeks maintained their response, while a great proportion of the nonresponders achieved clinically relevant efficacy outcomes 12 weeks after the switch. The safety profile of abrocitinib after switching from dupilumab was consistent with that of previous safety analyses; serious AEs were relatively rare.

Keywords: atopic dermatitis, abrocitinib, dupilumab, responders, nonresponders

Acknowledgments

This study was sponsored by Pfizer. Editorial/medical writing support under the guidance of the authors was provided by Renata Cunha, PharmD, at ApotheCom, San Francisco, CA, USA, and was funded by Pfizer Inc., New York, NY, USA, in accordance with Good Publication Practice (GPP 2022) guidelines (*Ann Intern Med*. 2022; 10.7326/M22-1460).

Disclosures

JIS has served as an investigator for Celgene, Eli Lilly and Company, F. Hoffmann-LaRoche, Menlo Therapeutics, Realm Therapeutics, Regeneron, and Sanofi-Genzyme; as a consultant for Pfizer Inc., AbbVie, Anacor, AnaptysBio, Arena Pharmaceuticals, Dermavant, Dermira, Eli Lilly and Company, Galderma, GlaxoSmithKline, Glenmark, Incyte, Kiniksa Pharmaceuticals, LEO Pharma, Menlo Therapeutics, Novartis, Realm Therapeutics, Regeneron, and Sanofi-Genzyme; and as a speaker for Regeneron and Sanofi-Genzyme. **ELS** received grants from Pfizer Inc., Eli Lilly and Company, Kyowa Kirin, LEO Pharma, Merck, and Regeneron and personal fees from Pfizer Inc., Bausch Health (Valeant), Dermira, Eli Lilly and Company, Galderma, LEO Pharma, Menlo Therapeutics, Novartis, Regeneron, and Sanofi Genzyme. **JPT** is an advisor for Pfizer Inc., AbbVie, Almirall, Arena Pharmaceuticals, Aslan Pharmaceuticals, Coloplast, Eli Lilly and Company, LEO Pharma, OM Pharma, Regeneron, Sanofi-Genzyme, and Union Therapeutics; a speaker for Pfizer Inc., AbbVie, Almirall, Eli Lilly and Company, LEO Pharma, Regeneron, and Sanofi-Genzyme; and has received research grants from Pfizer Inc., Regeneron, and Sanofi-Genzyme. **AEP** has acted as an advisor or speaker for Pfizer Inc., AbbVie, Almirall, Eli Lilly and Company, Janssen, La Roche-Posay, LEO Pharma, Novartis, Sanofi-Genzyme, UCB Pharma. **SW** has received institutional research grants from La Roche-Posay, LEO Pharma, and Sanofi Deutschland GmbH; has performed consultancies for Pfizer Inc., AbbVie, Eli Lilly and Company,

Kymab, LEO Pharma, Novartis, Regeneron, and Sanofi-Genzyme; has lectured at educational events sponsored by AbbVie, Galderma, LEO Pharma, Novartis, Regeneron, and Sanofi Genzyme; and is involved in performing clinical trials with many pharmaceutical industries that manufacture drugs used for the treatment of psoriasis and atopic dermatitis. **IL** is an employee of IQVIA, who were paid contractors to Pfizer in the development of this poster and in providing statistical support. **GC**, **CC**, and **EG** are employees and shareholders of Pfizer Inc.