Long-Term Efficacy (to 68 Weeks) of Baricitinib 4-mg in Combination with Topical Corticosteroids in Adult Patients with Moderate-to-Severe Atopic Dermatitis: Dose Persistence Evaluation in All Continuous Baricitinib 4-mg Patients Originating from Study BREEZE-AD7

Jonathan I. Silverberg[1], Eric L. Simpson[2], Jacob P. Thyssen[3], Thomas Werfel[4], Tracy E. Cardillo[5], Stephanie C. Colvin[5], Evangeline Pierce[5], Yun-Fei Chen[5], Sherry Chen[6], Lawrence F. Eichenfield[7]

[1]Department of Dermatology, George Washington University School of Medicine, Washington, USA; [2]Department of Dermatology, Oregon Health & Science University, Portland, USA; [3]Department of Dermatology, Bispebjerg Hospital, University of Copenhagen, Copenhagen, Denmark; [4]Department of Dermatology and Allergy, Hannover Medical School, Hannover, Germany; [5]Eli Lilly and Company, Indianapolis, USA; [6]Tigermed, Somerset, NJ, USA; [7]Departments of Dermatology and Pediatrics, University of California San Diego School of Medicine and Rady Children's Hospital, San Diego, California, USA.

Introduction:

Baricitinib, an oral selective Janus kinase (JAK)1/JAK2 inhibitor, in combination with topical corticosteroids (TCS) improved the clinical signs and symptoms of atopic dermatitis (AD) in adult patients following 16 weeks of treatment in a Phase 3 trial, BREEZE-AD7 (NCT03733301)[1]. Here, we report the extended 52-week efficacy outcomes (Week 68 of continuous therapy) for all patients who received continuous baricitinib 4-mg in the originating study, BREEZE-AD7, through the ongoing long-term extension study, BREEZE-AD3 (NCT03334435).

Methods:

Upon completion of BREEZE-AD7, patients assigned to baricitinib 4-mg who were classified as responders/ or partial responders (RPR) and nonresponders (NR) at Week 16 remained on their original treatment in BREEZE-AD3. Efficacy results were integrated from all patients (RPR and NR) who received continuous baricitinib 4-mg + TCS in the originating study through BREEZE-AD3 (referred to as baricitinib 4-mg ITT cohort). The baricitinib 4-mg ITT cohort was used to assess the persistence of response (continuous efficacy through Weeks 0-68) in patients regardless of response status at entry.

Primary endpoint was the proportion of patients with a vIGA-AD™ (0,1) response at Weeks 16, 36, and 52 of BREEZE-AD3 (reported as Weeks 32, 52 and 68 of continuous therapy). Efficacy analyses included vIGA-AD (0,1,2), ≥75% improvement from baseline in Eczema Area and Severity Index (EASI75), EASI mean percent change from baseline (%cfB) and Itch Numeric Rating Scale (NRS) improvement of ≥4 points from baseline. Exploratory endpoints included proportions of patients achieving Skin Pain NRS improvement of ≥4 points, Atopic Dermatitis Sleep Scale (ADSS) Item 2 improvement of ≥1.5 points, SCORing Atopic Dermatitis (SCORAD) Pruritus and Sleep-loss change from baseline, and the proportion of patients with a response of 0 or 1 on the Dermatology Life Quality Index (DLQI).

Baseline disease characteristics reported by responder status are the originating study baseline values (at initial randomization) for all analyses. Responses were censored during the first 16 weeks after the first rescue therapy date or permanent study drug discontinuation. Data after rescue or study treatment discontinuation were imputed as nonresponder imputation (NRI) for Weeks 0-16. In BREEZE-AD3 (Weeks 16-68) missing data were imputed by last observation carried forward (LOCF).

Results:

Integrated efficacy data from the baricitinib 4-mg ITT cohort (N=102) demonstrated that persistence of response was mostly stable with a slight decrease over time. Proportions of all patients receiving continuous baricitinib 4-mg who achieved vIGA-AD (0,1) were 33.3% at Week16 (AD3 baseline), 21.6% at Week32, 26.5% at Week52 and 23.5% at Week68. Corresponding proportions for vIGA-AD (0,1,2) were 66.7%, 54.9%, 48.0% and 52.9%, respectively; EASI75 responses were 51.0%, 46.1%, 40.2% and 43.1%, respectively. EASI mean %cfB remained stable from Week16 (-20.2) to Week32 (-18.5), Week52 (-18.3) and Week68 (-18.5).

Patient-reported outcomes for the baricitinib 4-mg ITT cohort remained mostly stable over time: ADSS Item 2 ≥1.5-point improvement (Week16, 83.7%; Week32, 76.7%), Skin Pain NRS ≥4-point improvement (Week16, 53.3%; Week32, 50.7%), and Itch NRS ≥4-point improvement (Week16, 47.3%; Week32, 40.7%). Proportions of patients achieving a response of 0 or 1 for DLQI were 24.5%, 17.7%, 20.6% and 19.6% at Week16, Week32, Week52 and Week68 respectively. Mean %cfB in SCORAD for Pruritus at Week16, Week32, Week52 and Week68 were -59.6, -48.2, -50.0 and -46.5 respectively; for SCORAD Sleep-loss the corresponding numbers were -4.5, -3.9, -3.5 and -3.3 respectively.

Conclusion:

When examining persistence of response across time, baricitinib 4-mg combined with TCS demonstrated sustained long-term efficacy over 68 weeks, providing support that baricitinib may be a longer-term treatment option for moderate-to-severe AD.

References:

1. Reich K, et al. *JAMA dermatology*. 2020;156(12):1333-43.