From the Clinical Trial to Clinical Practice: Open-Label Therapy With Baricitinib 2-mg in Patients With Moderate to Severe Atopic Dermatitis

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BACKGROUND

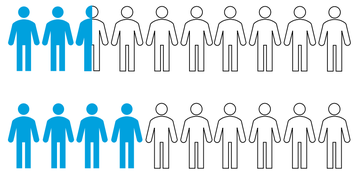
- Baricitinib is an oral selective Janus kinase (JAK)1/JAK2 inhibitor[1] approved for the treatment of adults with moderate-to-severe atopic dermatitis (AD) who are candidates for systemic therapy
- Baricitinib demonstrated long-term efficacy and safety in moderate-to-severe AD in a double-blind Phase 3 extension study (BREEZE-AD3 [NCT03334435])[2,3]
- This study also included an Open-Label Extension that directly enrolled patients into a baricitinib 2-mg open-label treatment arm with background topical corticosteroids

OBJECTIVE

- To present the 52-week outcomes from the baricitinib 2-mg open-label treatment arm of BREEZE-AD3

KEY FINDINGS

Skin clearance in AD was maintained through 52 weeks of treatment with BARI 2-mg QD plus TCS



26% of patients achieved clear/almost clear skin (vIGA-AD™ [0,1]) at Week 52

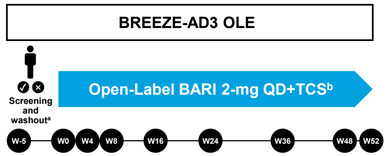
42% of patients achieved EASI75 at Week 52

CONCLUSIONS

- As the open-label treatment arm simulates clinical practice, these findings provide clinically relevant outcomes for baricitinib 2-mg therapy across 52 weeks
- Patients who experienced improvement on baricitinib 2-mg QD with background topical corticosteroids during the open-label treatment arm maintained responses for up to 52 weeks:
  - Skin clearance, assessed by vIGA-AD (0,1), EASI75, and percent of BSA involvement
  - Patient-reported outcomes DLQI (0,1) and SCORAD Itch and Sleep Loss
- No new safety findings were observed
- Response rates from this analysis mirrored previously reported long-term response rates from the BREEZE-AD5/-AD6 baricitinib 2-mg studies, indicating reliability of findings

METHODS

Study Design



[a] Washout of TCS (2 weeks) and systemic therapy (4 weeks); [b] Background TCS were allowed at the Investigator's discretion

Assessments

Skin Clearance Outcomes

- Primary: vIGA-AD (0,1)=clear/almost clear
- EASI
  - Total score
  - 75% improvement from baseline in EASI score (EASI75)
- BSA % involvement

Patient-Reported Outcomes and Quality of Life

- SCORing Atopic Dermatitis (SCORAD) visual analog scale (VAS)[4]
  - Itch (pruritus): Worst itch over the last 72 hours (scale, 0-10)
  - Sleep loss over the last 72 hours (scale, 0-10)
- Dermatology Life Quality Index (DLQI)
  - DLQI (0,1)=no impact on quality of life

Safety

- Adverse events (AEs)

Key Eligibility Criteria

- Adults and diagnosis of AD for ≥12 months according to the American Academy of Dermatology definition
- Moderate-to-severe AD at screening, defined as:
  - Eczema Area and Severity Index (EASI) score ≥16
  - vIGA-AD score ≥3
  - Body surface area (BSA) involvement ≥10%
- History of inadequate response or intolerance to topical therapy

Statistical Analyses

- Data are presented at each time point using descriptive statistics for this single-arm addendum
  - Proportion of patients who achieved vIGA-AD (0,1), EASI75, and DLQI (0,1)
  - Percent change from baseline in EASI total score
  - Change from baseline in percent of BSA involvement and SCORAD VAS (Itch and Sleep Loss scores)
- Missing data were imputed for each analysis using modified last observation carried forward
- AE data were included in an integrated analysis of adult patients with AD treated with baricitinib 2-mg once daily (QD) from 8 clinical trials[5,a]

[a] 6 randomized trials, including 1 Phase 2 trial (NCT02576938), 5 Phase 3 trials (BREEZE-AD1 [NCT03334396]; BREEZE-AD2 [NCT03334422]; BREEZE-AD4 [NCT03428100], ongoing; BREEZE-AD5 [NCT03435081], ongoing; and BREEZE-AD7 [NCT03733301]), and 2 ongoing Long-term Extension studies (BREEZE-AD3 [NCT03334435] and BREEZE-AD6 [NCT03559270])

RESULTS

Baseline Demographics and Disease Characteristics at BREEZE-AD3 Baseline

	BARI 2-mg (N=247)
Age, years	34.9 (13.0)
Female, n (%)	112 (45.3)
Race, n (%) White Asian Other	 211 (85.4) 13 (5.3) 23 (9.3)
BMI, kg/m²	25.5 (4.8)
Age at AD diagnosis, years	9.9 (14.2)
AD duration, years	25.1 (14.1)
vIGA-AD (3), n (%)	147 (59.5)
vIGA-AD (4), n (%)	100 (40.5)
EASI	28.7 (12.0)
BSA % affected	45.6 (21.6)
DLQI	14.7 (7.3)
SCORAD Itch	7.1 (2.4)
SCORAD Sleep Loss	5.8 (3.3)

Data presented as mean (standard deviation) unless otherwise indicated

Safety

- An integrated analysis of AE data with baricitinib 2-mg QD in patients with moderate-to-severe AD, including data from BREEZE-AD3, revealed no new safety signals[5]

n [IR]	All BARI 2-mg (N=1598)[a]
Total patient-years	1434.2
Any TEAEs	1032 [159.6]
SAEs	68 [4.7]
AEs leading to temporary interruption	118 [8.4]
AEs leading to permanent discontinuation	56 [3.8]
Death	0

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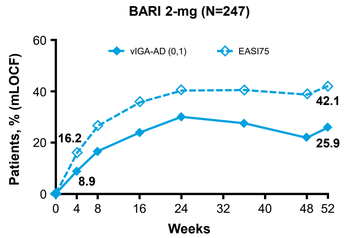
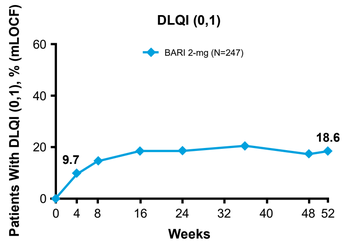
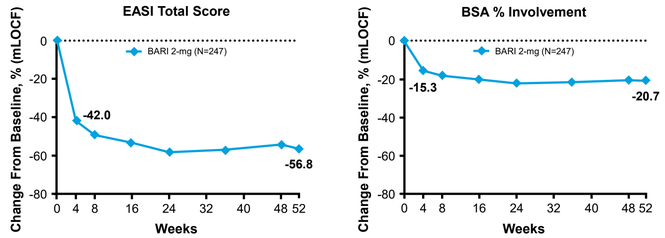
Skin Clearance Rates Increased Through 52 Weeks



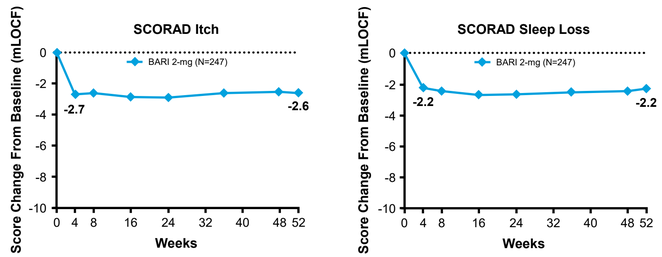
QoL Outcomes Improved Through 52 Weeks



EASI Total Score and BSA Percent Involvement Improved From Baseline Through 52 Weeks



Patient-Reported Symptoms Improved Through 52 Weeks



ABBREVIATIONS

AD=atopic dermatitis; AE=adverse event; BARI=baricitinib; BMI=body mass index; BSA=body surface area; DLQI=Dermatology Life Quality Index; DLQI (0,1)=DLQI (no impact on QoL); EASI=Eczema Area and Severity Index; EASI75=75% improvement from baseline in EASI; IR=incidence rate; mLOCF=modified last observation carried forward, OLE=Open-Label Extension; QD=once daily; QoL=quality of life; SAE=serious AE; SCORAD=SCORing AD; TCS=topical corticosteroids; TEAE=treatment-emergent AE; W=Week

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DISCLOSURES

- **A. Costanzo** has been an advisor, speaker, and/or consultant for and/or has participated in clinical studies for: AbbVie, Amgen, Eli Lilly and Company, Janssen, LEO Pharma, Novartis, Pfizer, Sanofi, and UCB Pharma; **L. Spelman** has been a consultant, scientific advisor, investigator, scientific officer, and/or speaker for: AbbVie, Akeso Biopharma, Alphyn Biologics, Amgen, Anacor Pharmaceuticals, Ascend Biopharma, ASLAN Pharmaceuticals, Astellas, AstraZeneca, Blaze Bioscience, Boehringer Ingelheim, Botanix Pharmaceuticals, Bristol Myers Squibb, Celgene, Connect Biopharma, Dermira, Eli Lilly and Company, Evelo Biosciences, Galderma, Genentech, GlaxoSmithKline, Heximа, Immunic Therapeutics, Invion, Janssen, Kiniksa, KoBioLabs, LEO Pharma, Lipidio Pharma, Mayne Pharma, MedImmune, Merck Serono, Merck Sharp & Dohme, Novartis, Otsuka, Pfizer, Phosphagenics, Photon, Regeneron, Reistone Biopharma, Roche, Samumed, Sanofi Genzyme, SHR, Sun Pharma, Trius, UCB Pharma, Vyne Therapeutics, and Zai Lab; **S. Ball**, **L. Cirri**, and **L. Sun** are current employees and shareholders of: Eli Lilly and Company; **C. Mert** is an employee of: HaaPacs GmbH; **J. I. Silverberg** has received grants as an investigator, honoraria, and/or consulting fees from: AbbVie, AnaptysBio, Arena Pharmaceuticals, Asana BioSciences, Boehringer Ingelheim, Celgene, Dermavant, Dermira, Eli Lilly and Company, Galderma, GlaxoSmithKline, Glenmark Pharmaceuticals, Kiniksa, LEO Pharma, Luna Pharma, MedImmune, Menlo Therapeutics, Novartis, Pfizer, Regeneron, and Sanofi
- Medical writing assistance was provided by Yuriko Kikuchi-Rech, PhD, of ProScribe – Envision Pharma Group, and was funded by Eli Lilly and Company

Study was sponsored by Eli Lilly and Company, under license from Incyte Corporation