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

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BACKGROUND

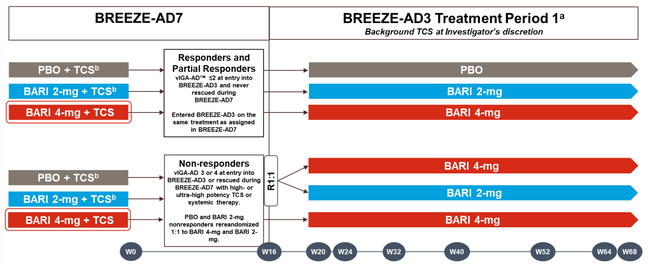
- Baricitinib, an oral selective Janus kinase (JAK)1/JAK2 inhibitor[1], is approved in many countries[2] for moderate-to-severe atopic dermatitis (AD) in adult patients who are candidates for systemic therapy.
- Baricitinib combined with topical corticosteroids (TCS) improved the clinical signs and symptoms of AD in adult patients following 16 weeks of treatment in a placebo-controlled Phase 3 trial, BREEZE-AD7[3] (NCT03733301).
- Patients completing BREEZE-AD7 could enter an ongoing, double-blind, Phase 3, long-term extension study, BREEZE-AD3 (NCT03334435).

OBJECTIVE

- To examine the extended 52-week efficacy outcomes (Week 68 of continuous therapy) for all patients (responders, partial responders and nonresponders) who received continuous baricitinib 4-mg in the originating study, BREEZE-AD7, through BREEZE-AD3.

METHODS

Study design, BREEZE-AD7, and responders/partial responders and nonresponders in BREEZE-AD3

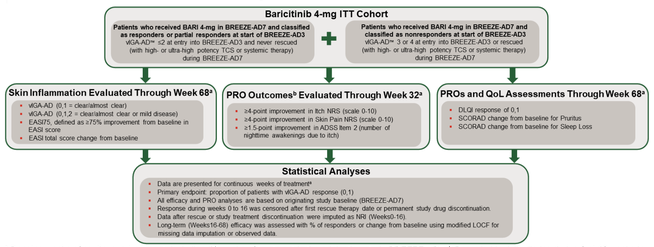


[a] BARI 1-mg was a treatment arm in BREEZE-AD3 but was not an available treatment arm to patients entering from BREEZE-AD7.

[b] Efficacy data are not shown for PBO and BARI 2-mg responders, partial responders and nonresponders populations as this publication focuses only on patients who received continuous BARI 4-mg in the originating study through BREEZE-AD3.

BARI, baricitinib; PBO, placebo; TCS, topical corticosteroids; vIGA-AD™, Validated Investigator Global Assessment scale for Atopic Dermatitis; W, Week of continuous treatment

Outcomes and statistical analysis

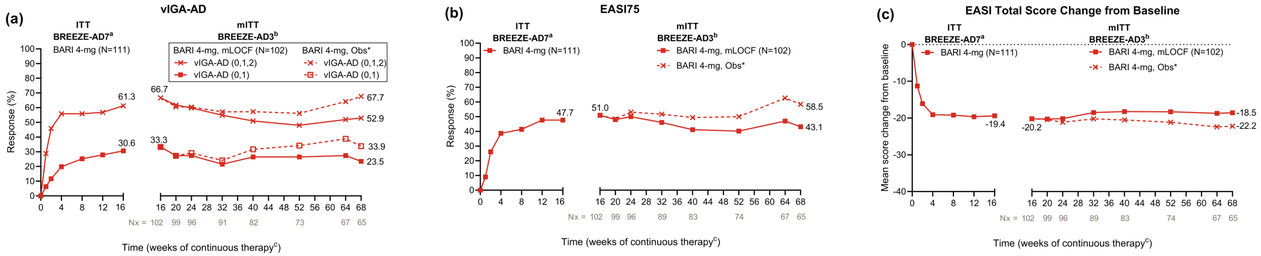


[a] Denotes weeks of continuous treatment, including 16 weeks of treatment in the originating study BREEZE-AD7; [b] Recorded in daily diaries during first 16 weeks in BREEZE-AD7 and first 16 weeks in BREEZE-AD3 (32 weeks of continuous treatment)

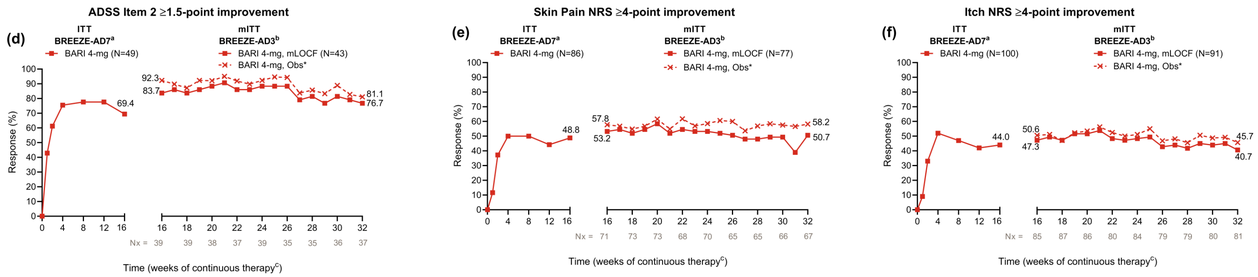
ADSS, Atopic Dermatitis Sleep Scale; BARI, baricitinib; DLQI, Dermatology Life Quality Index; EASI, Eczema Area and Severity Index; ITT, intent-to-treat; LOCF, last observation carried forward; NRI, nonresponder imputation; NRS, numeric rating scale; PBO, placebo; PRO, patient-reported outcome; SCORAD, SCORing Atopic Dermatitis; TCS, topical corticosteroids; vIGA-AD™, Validated Investigator Global Assessment scale for Atopic Dermatitis

RESULTS

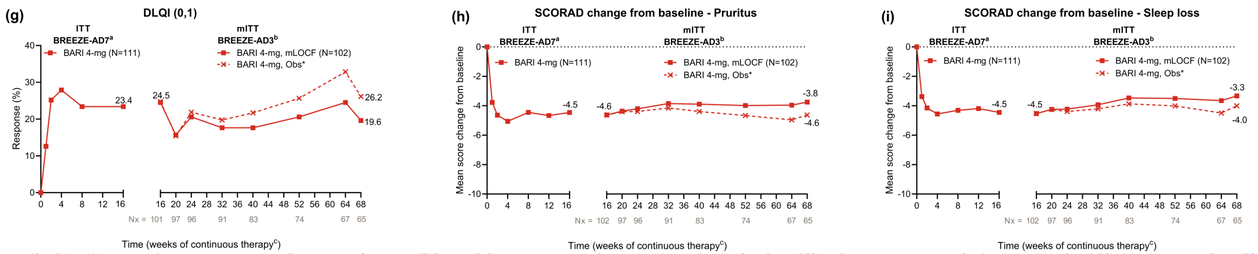
Skin inflammation response rates were maintained through 68 Weeks of continuous treatment



Itch, Skin Pain, and Sleep disturbance improvement rates were maintained through 32 Weeks of continuous treatment



Improvement rates in DLQI and patient-reported outcomes were maintained through 68 Weeks of continuous treatment



(a), vIGA-AD. (b), 75% improvement from originating study baseline in Eczema Area and Severity Index (EASI75). (c), EASI total score mean change from baseline. (d), Atopic Dermatitis Sleep Scale (ADSS) Item2 ≥1.5-point improvement. (e), Skin Pain Numeric Rating Scale (NRS) ≥4-point improvement. (f), Itch NRS ≥4-point improvement. (g), Dermatology Life Quality Index (DLQI) score of 0 or 1. (h), SCORing Atopic Dermatitis (SCORAD) for pruritus, mean change from baseline. (i), SCORing Atopic Dermatitis (SCORAD) for Sleep loss, mean change from baseline.

ITT, intent-to-treat; mITT, modified intent-to-treat.

[c]Observed data: response is calculated by N/Nx*100%, where Nx is the number of patients with non-missing data.

[a] Response during weeks 0 to 16 was censored after first rescue therapy date or permanent study drug discontinuation; ITT population included all patients as randomized during the study. Data after rescue or study treatment discontinuation were imputed as NRI.

[b] mITT in BREEZE-AD3 included all patients receiving 1 or more dose of baricitinib in BREEZE-AD3. Missing data were imputed using last observation carried forward (LOCF).

[c] Data for the modified intent-to-treat population are shown as weeks of continuous therapy, which includes the 16-week treatment period in the originating studies.

CONCLUSIONS

- Baricitinib 4-mg maintained clinically meaningful long-term efficacy in a population of adult patients with moderate-to-severe AD.
- Patients who experienced improvement on baricitinib 4-mg and topical corticosteroids during the placebo-controlled study maintained response on:
  - Skin inflammation (vIGA-AD and EASI75) for up to 68 weeks of continuous treatment
  - Patient-reported outcomes (itch, skin pain, and sleep disturbance due to itch) for up to 32 weeks of continuous treatment (duration of daily diary use)
  - Quality of Life measures (DLQI) for up to 68 weeks of continuous treatment
- A recently published integrated long-term safety analysis[4] showed a safety profile consistent with previous 16-week placebo-controlled studies[3,5] of baricitinib in AD.

RESULTS

Patient Demographics and Baseline Characteristics

	Entered BREEZE-AD3 as Responders/Partial Responders[a]	Entered BREEZE-AD3 as Nonresponders[b]
	BARI 4-mg (N=63)	BARI 4-mg (N=39)
BREEZE-AD7 baseline		
Age, years	33.1 (11.1)	35.7 (11.9)
Male, n (%)	42 (66.7)	28 (71.8)
Race, n (%)		
White	37 (58.7)	15 (38.5)
Asian	25 (39.7)	23 (59.0)
Other	1 (1.6)	1 (2.6)
EASI	26.6 (10.6)	39.1 (12.4)
SCORAD	65.2 (12.4)	75.3 (11.7)
DLQI	14.1 (7.7)	16.1 (8.8)
Itch NRS	6.8 (2.1)	7.4 (2.0)
Skin Pain NRS	5.7 (2.7)	6.4 (2.3)
ADSS Item 2	1.8 (2.7)	1.8 (1.8)
vIGA-AD (3), n (%)	42 (66.7)	12 (30.8)
vIGA-AD (4), n (%)	21 (33.3)	27 (69.2)
BREEZE-AD3 baseline		
vIGA-AD (0,1), n (%)	31 (49.2)	3 (7.7)
vIGA-AD (2), n (%)	32 (50.8)	2 (5.1)

Data presented as mean (standard deviation) unless otherwise indicated

[a] vIGA-AD ≤2 at entry into BREEZE-AD3 and never rescued during originating study BREEZE-AD7

[b] vIGA-AD 3 or 4 at entry into BREEZE-AD3 and/or were rescued during originating study BREEZE-AD7

ADSS, Atopic Dermatitis Sleep Scale; BARI, baricitinib; DLQI, Dermatology Life Quality Index; EASI, Eczema Area and Severity Index; NRS, numeric rating scale; SCORAD, SCORing Atopic Dermatitis.

DISCLOSURES

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REFERENCES

1. Fridman JS, et al. J Immunol. 2010;184:5928-5307.
2. https://www.ema.europa.eu/en/medicines/human/EPAR/olumiant#product-information-section.
3. Reich K, et al. JAMA Dermatol. 2020;156:1333-1343.
4. Bieber T, et al. J Eur Acad Dermatol Venereol. 2021;35(2):476-485.
5. Simpson EL, et al. Br J Dermatol. 2020;183(2):242-255.

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