Duration of Current Episode of Alopecia Areata (AA) Influences Prognosis During Treatment With Baricitinib in Patients With Severe AA

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BACKGROUND

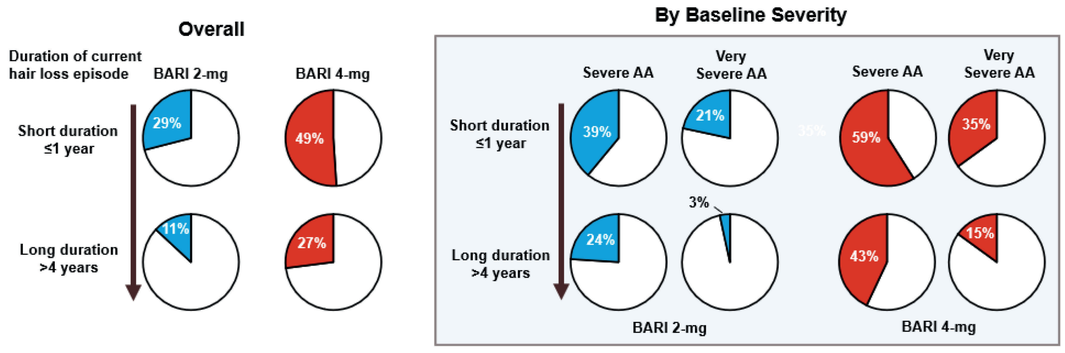
- AA is an autoimmune disease characterized by unpredictable hair loss that can, in some patients, result in extensive or total loss of hair on the scalp and/or body[1]
- Baricitinib, an oral selective JAK inhibitor, has demonstrated efficacy on hair regrowth in patients with severe AA in 2 Phase 3 randomized, double-blind, placebo-controlled trials, BRAVE-AA1 (NCT03570749[2]) and BRAVE-AA2 (NCT03899259[3])
- It is classically considered that patients with AA retain the capacity to regrow hair indefinitely because the disease preserves the hair follicles
- However, previous literature suggests that long duration of continuous hair loss is associated with poorer prognosis and more treatment-recalcitrant severe AA[3]

OBJECTIVE

- To evaluate the impact of duration of current episode of hair loss on the possibility of achieving clinically meaningful hair regrowth in baricitinib-treated patients with severe AA

SUMMARY OF KEY FINDINGS

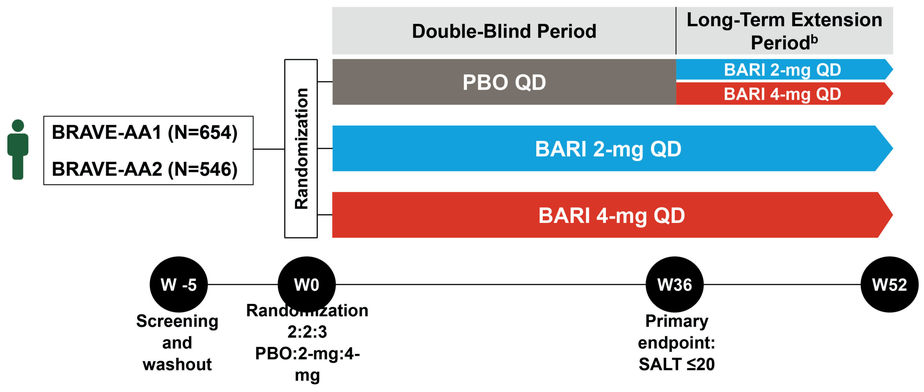
Proportion of Patients With SALT ≤20 at Week 52



- Early intervention seems to result in higher response rates (SALT ≤20) regardless of baseline severity
- Patients with long duration of current episode and very severe AA benefit from higher dose of baricitinib

METHODS

Study Design: BRAVE-AA1 and BRAVE-AA2[a]



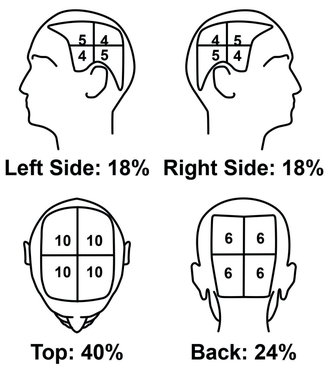
Key Eligibility Criteria

- Age ≥18 years to ≤60 years (males) or ≤70 years (females)
- Hair loss involving ≥50% of the scalp, as measured by the SALT score
- Current episode of AA lasting >6 months to <8 years[c]
- No spontaneous improvement in the 6 months prior to screening

[a] Figure is not the full study design; only the first year of both trials is shown; [b] Patients randomized to BARI (4-mg or 2-mg QD) at baseline retained their treatment allocation through Week 52, whereas PBO non-responders were rescued at Week 36; [c] Patients who had AA for ≥8 years could be enrolled if episodes of regrowth (spontaneous or under treatment) had been observed on the affected areas over the past 8 years

Assessments: SALT Score[4]

- Assesses hair loss in each quadrant of the scalp
- The SALT score is a weighted sum of the percentage of hair loss in the 4 quadrants of the scalp, ranging from 0 (no hair loss) to 100 (complete hair loss)
- Interpretation:
  - SALT 0 = no hair loss
  - SALT 50 = 50% hair loss
  - SALT 100 = complete hair loss



Statistical Analyses

- Post hoc analyses of integrated data were conducted to evaluate SALT ≤20 response rates at Weeks 36 and 52 by duration of baseline current episode based on <1, 1-2, 2-3, 3-4, and >4-year cut-offs
- Data were considered missing after treatment discontinuation and if collected remotely due to COVID-19
- Missing data were imputed as non-responders
- Descriptive statistics of proportion of SALT ≤20 response rates are presented

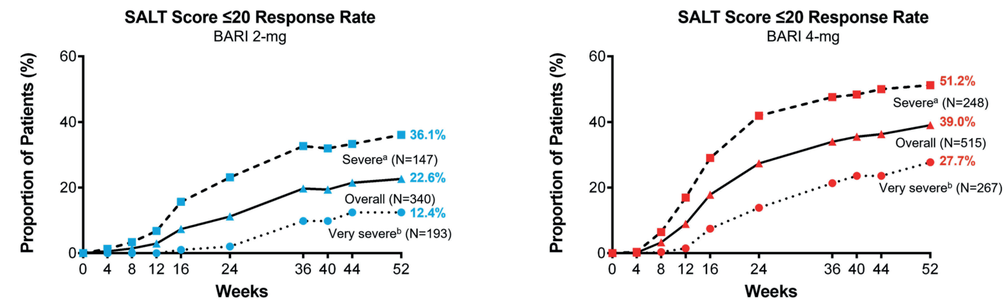
RESULTS

Demographics and Baseline Characteristics

	BARI 2-mg (N=340)	BARI 4-mg (N=515)
Age, years	38.4 (12.9)	37.1 (13.0)
Female, n (%)	212 (62.4)	309 (60.0)
Duration since AA onset,[a] years		
Mean	12.6 (10.7)	11.9 (11.1)
Range	0.5-52.1	0.5-58.1
Duration of current AA episode,[b] years		
Mean	4.1 (5.4)	3.7 (3.4)
Range	0.3-43.8	0.5-24.2
Duration of current AA episode categories,[c] years, n (%)		
≤1	62 (18.2)	109 (21.2)
1-2	84 (24.7)	96 (18.6)
2-3	51 (15.0)	80 (15.5)
3-4	34 (10.0)	54 (10.5)
>4	109 (32.1)	176 (34.2)
SALT score	86.3 (18.0)	85.1 (18.1)
SALT category, n (%)		
Severe (SALT 50-94)	147 (43.2)	248 (48.2)
Very severe (SALT 95-100)	193 (56.8)	267 (51.8)

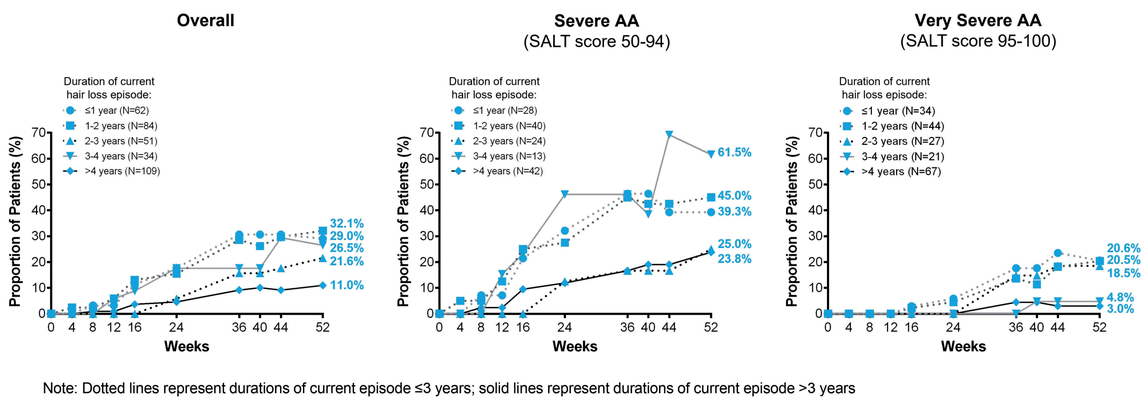
[a] Duration since the first manifestations of the disease; [b] Duration since the last time scalp hair was normal; [c] BARI 2-mg, N=337
Note: Data are mean (SD) unless stated otherwise

SALT ≤20 Response Rate Over Time by Baseline Severity Category



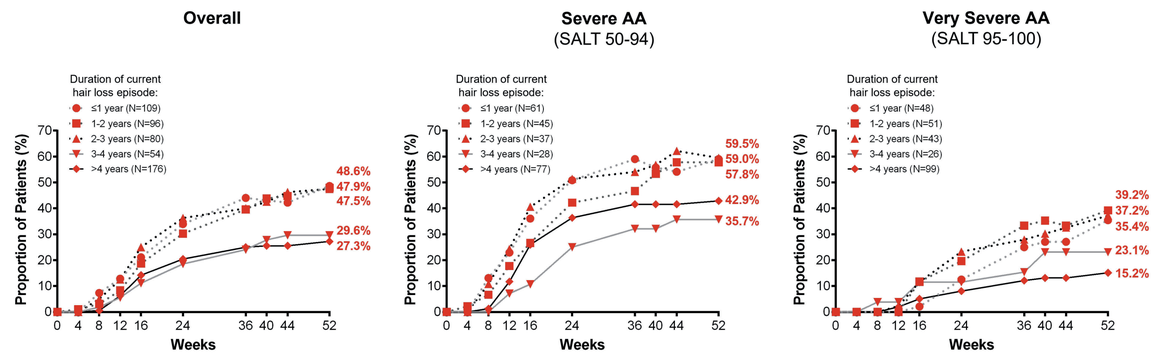
[a] SALT score 50-94; [b] SALT score ≥95

Effect of Duration of Current Episode of AA on SALT ≤20 Response Rate: Baricitinib 2-mg



Note: Dotted lines represent durations of current episode ≤3 years; solid lines represent durations of current episode >3 years

Effect of Duration of Current Episode of AA on SALT ≤20 Response Rate: Baricitinib 4-mg



Note: Dotted lines represent durations of current episode ≤3 years; solid lines represent durations of current episode >3 years

CONCLUSIONS

- These analyses demonstrated that a higher proportion of patients achieved SALT ≤20 in the subgroups with shorter durations of current AA episode
  - This was true regardless of baseline disease severity
- Baricitinib 4-mg consistently provided higher response rates over 2-mg across all subgroups
- These data suggest that early intervention may confer a higher likelihood of achieving a meaningful clinical response among baricitinib-treated patients with severe AA

Limitations

- This analysis could not evaluate whether a longer treatment duration would increase the proportion of responders among patients with longer duration of episodes
- The small sample size of some of the groups limits the comparability of the response rates

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DISCLOSURES

- **B. King** has served on advisory boards and/or is a consultant and/or a clinical trial investigator for: AbbVie, Almirall, AltruBio, AnaptysBio, Arena Pharmaceuticals, Bioniz Therapeutics, Bristol Myers Squibb, Concert Pharmaceuticals, Eli Lilly and Company, Horizon Therapeutics, Incyte Corporation, LEO Pharma, Otsuka/Visterra, Pfizer, Regeneron, Sanofi Genzyme, TWi Biotechnology, and Viela Bio; and is on speaker's bureaus for: AbbVie, Incyte Corporation, LEO Pharma, Pfizer, Regeneron, and Sanofi Genzyme; **J. Shapiro** is a consultant or clinical trial investigator for: Pfizer; and is a consultant for: Eli Lilly and Company; **M. Ohyama** has received lecture and advisory fees from: AbbVie, Bristol Myers Squibb K.K., Eli Lilly Japan K.K., Pfizer Japan, Maruho, Rohto Pharmaceutical, and Taisho Pharmaceutical; and has received research grants from: Advantest, Maruho, Shiseido, and Sun Pharma Japan; **A. Egeberg** has received research funding from: AbbVie, Boehringer Ingelheim, Danish National Psoriasis Foundation, Eli Lilly and Company, Janssen, Kgl. Hofbundtmager Aage Bang Foundation, Novartis, and Pfizer; and has received honoraria as a consultant and/or speaker from: AbbVie, Almirall, Boehringer Ingelheim, Bristol Myers Squibb, Dermavant, Eli Lilly and Company, Galapagos NV, Galderma, Horizon Therapeutics, Janssen, LEO Pharma, Mylan, Novartis, Pfizer, Samsung Bioepis, Sun Pharma, UCB Pharma, and UNION Therapeutics; **R. Sinclair** has been an investigator for and/or provided professional services to: AbbVie, Aerotek Scientific, Akeso Biopharma, Amgen, Arcutis, Arena Pharmaceuticals, Ascend Laboratories, AstraZeneca, Bayer Pharmaceuticals, Boehringer Ingelheim, Bristol Myers Squibb, Celgene, Coherus BioSciences, Connect Biopharma, Cutanea, Dermira, Eli Lilly and Company, Galderma, GlaxoSmithKline, Janssen, LEO Pharma, MedImmune/AstraZeneca, Merck Sharp & Dohme, Novartis, Oncobiologics, Pfizer, Regeneron, Reistone Biopharma, Roche, Samson Medical Technologies, Sanofi, Sun Pharma, and UCB Pharma; **W.-S. Wu**, **Y. Dutronc**, **Y.-F. Chen**, **Y. Ding**, **N. Somani,** and **K. Fotiou** (Non-author presenter) are employees and stockholders of: Eli Lilly and Company
- Medical writing assistance was provided by John Bilbruck, PhD, of ProScribe – Envision Pharma Group, and was funded by Eli Lilly and Company
- Previously presented at World Congress of Dermatology (WCD); Singapore; 3-8 July 2023

ABBREVIATIONS

AA=alopecia areata; BARI=baricitinib; COVID-19=coronavirus disease 2019; JAK=Janus kinase; PBO=placebo; QD=once daily; SALT=Severity of Alopecia Tool; SD=standard deviation; W=Week

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DWFA (2023) Dermatologische Wissenschafts- und Fortbildungsakademie; Cologne, Germany; November 24 – 26, 2023

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