Peak Pruritus Numeric Rating Scale (PP-NRS) Response With Abrocitinib in Patients With Moderate-to-Severe Atopic Dermatitis (AD): Results From a Randomized, Phase 3 Clinical Trial

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JADE MONO-1: Introduction, Objective, Methods, and Baseline Characteristics

Introduction

- Abrocitinib is an oral once-daily JAK1 selective inhibitor under investigation for the treatment of AD
- JAK1 inhibitors may have unique itch-mitigating effects on AD[1]
- In a phase 3 trial (NCT03349060; JADE MONO-1), abrocitinib was well tolerated and effective in adolescents and adults with moderate-to-severe AD[2]

Objectives

- To assess PP-NRS2 and PP-NRS4 responder rates (≥2-point or ≥4-point improvement, respectively) and times to PP-NRS response
- To assess percentage change from baseline in PP-NRS overall and by baseline PP-NRS

Methods

- Randomized, double-blind, placebo-controlled trial of abrocitinib (200 mg or 100 mg) versus placebo
- Patients aged ≥12 years with AD ≥1 year
  - Moderate-to-severe AD (IGA ≥3, EASI ≥16, %BSA ≥10, PP-NRS ≥4)
  - Inadequate response or intolerance to topical medication, or need systemic therapy to control AD
- PP-NRS assessed at baseline, daily through day 15, and at weeks 4, 8, and 12

Baseline Characteristics

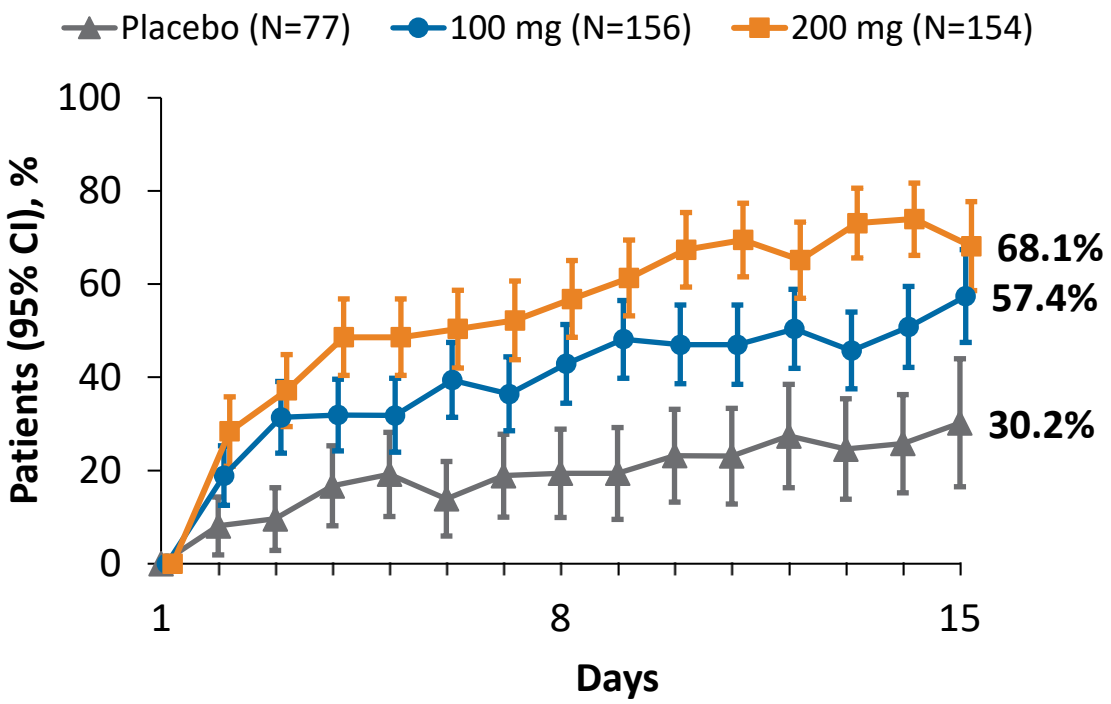
		Total N=387	Placebo N=77	100 mg N=156	200 mg N=154
Age, mean (SD), y		32.5 (16.0)	31.5 (14.4)	32.6 (15.4)	33.0 (17.4)
Age group, n (%)	<18 years	84 (21.7)	17 (22.1)	34 (21.8)	33 (21.4)
Disease duration, median (range), y		19.8 (1-69)	18.8 (2-66)	21.3 (1-69)	18.9 (1-65)
IGA, n (%)	Moderate (3)	229 (59.2)	46 (59.7)	92 (59.0)	91 (59.1)
	Severe (4)	158 (40.8)	31 (40.3)	64 (41.0)	63 (40.9)
EASI, mean (SD)		30.5 (13.6)	28.7 (12.5)	31.3 (13.6)	30.6 (14.1)
PP-NRS, mean (SD)		7.0 (1.9)	7.0 (1.8)	6.9 (2.0)	7.1 (1.9)
PP-NRS, n (%)	<7	139 (35.9)	26 (33.8)	64 (41.0)	49 (31.8)
	≥7	247 (63.8)	51 (66.2)	91 (58.3)	105 (68.2)

%BSA, percentage of body surface area; EASI, Eczema Area and Severity Index; IGA, Investigator's Global Assessment; JAK1, Janus kinase 1; PP-NRS, Peak Pruritus Numerical Rating Scale (used with permission of Regeneron Pharmaceuticals, Inc. and Sanofi).

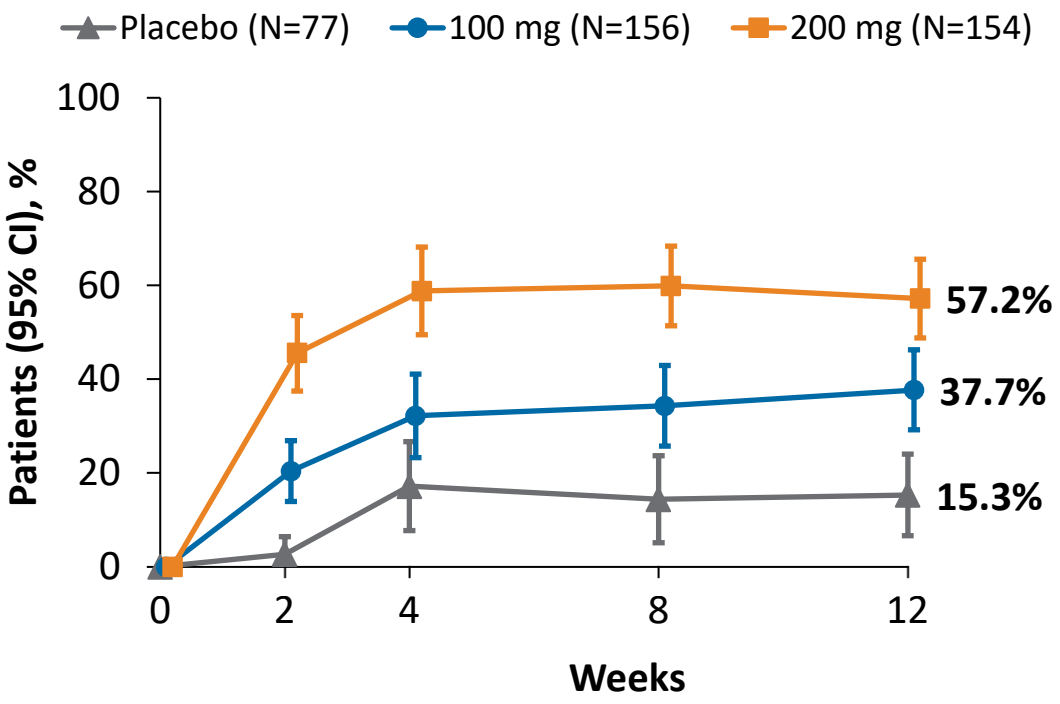
1. Oetjen LK et al. *Cell*. 2017 ;171(1):217-228.e13.
2. Simpson E et al. Presented at: 28th EADV Congress; October 9-13, 2019; Madrid, Spain.

JADE MONO-1: PP-NRS Response

PP-NRS2 Response: Rapid Onset of Itch Response



Greater PP-NRS4 Response Over 12 Weeks for Abrocitinib Versus Placebo



Placebo	100 mg	200 mg
19 (8-57)	7 (6-9)	4 (3-5)

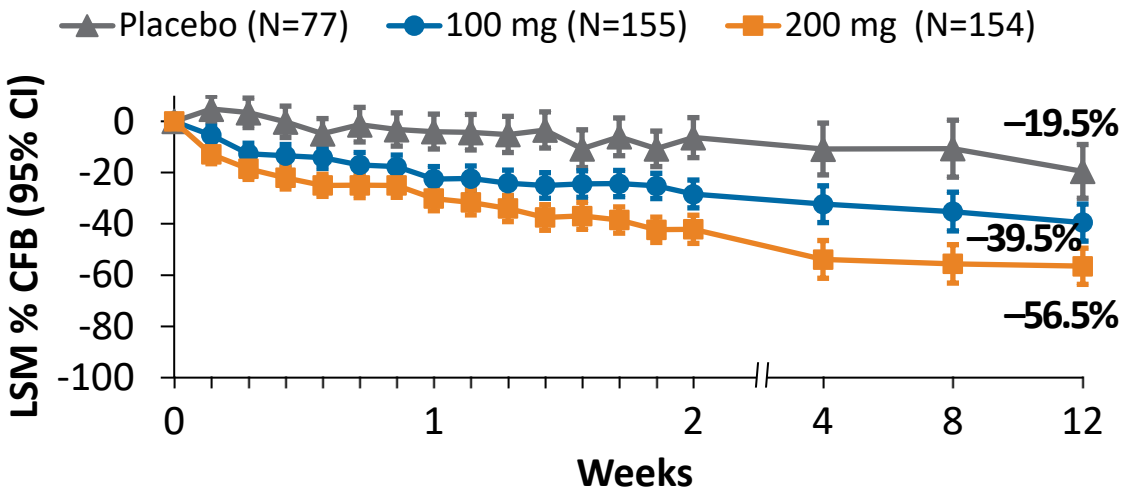
Median time to response, median (95% CI), days[a]

Placebo	100 mg	200 mg
92 (85-NE)	84 (56-NE)	14 (11-29)

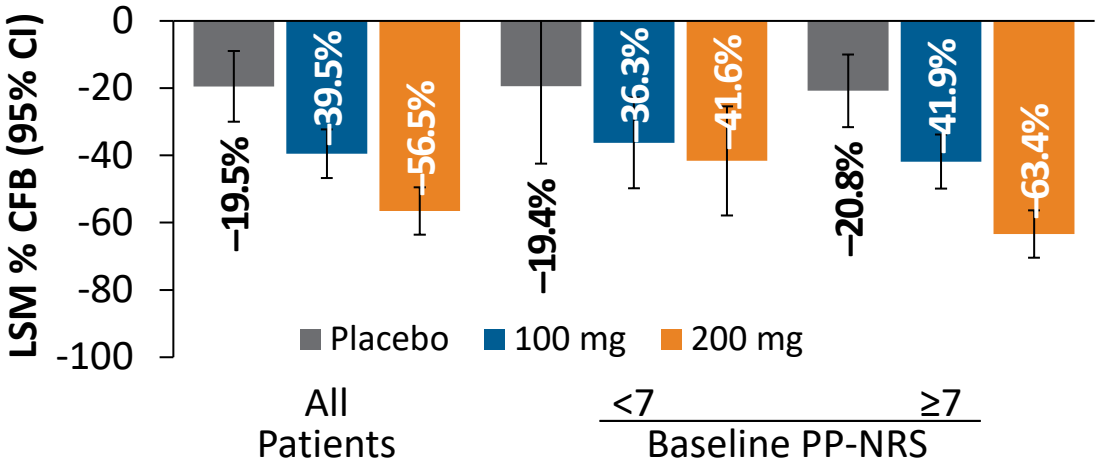
NE, not estimable; PP-NRS, Peak Pruritus Numerical Rating Scale.
PP-NRS2 response defined as ≥2-point improvement from baseline. PP-NRS4 response defined as ≥4-point improvement from baseline.
[a]From Kaplan-Meier analysis in responders.

Percentage Change in PP-NRS, Safety, and Conclusions

Percentage Change in PP-NRS Greater for Abrocitinib Versus Placebo



Percentage Change in PP-NRS at Week 12: Large Responses to Abrocitinib Regardless of Baseline PP-NRS



Safety Results

- TEAEs were reported for 120 (77.9%), 108 (69.2%), and 44 (57.1%) patients in the 200-mg, 100-mg, and placebo groups, respectively; serious AEs were reported for 5 (3.2%), 5 (3.2%), and 3 (3.9%) patients, respectively
- No cases of venous thromboembolism, major cardiovascular AEs, or death were reported
- There were no clinically significant changes in hemoglobin, neutrophils, or lymphocytes, however there was a dose-related numeric decrease in median platelet count in patients treated with abrocitinib that improved toward baseline levels after the nadir at week 4; platelet count stabilized by week 12 without clinical sequalae or treatment cessation

Conclusions

- Abrocitinib was well tolerated and it rapidly (within 1 day) and significantly improved pruritus versus placebo, regardless of baseline PP-NRS

AE, adverse event; CFB, change from baseline; LSM, least-squares mean; PP-NRS, Peak Pruritus Numerical Rating Scale; TEAE, treatment-emergent adverse event.