Secukinumab Achievement of Psoriatic Arthritis Disease Activity Score (PASDAS)-Related Remission: 2-Year Results From a Phase 3 Study

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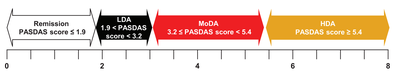
BACKGROUND

- PASDAS, a validated composite index that assesses multiple facets of PsA, including joints, dactylitis, enthesitis, and quality of life (QoL),[1] offers both a target and disease activity state assessment across important clinical domains with validated cutpoints[2] (**Figure 1**)
- PASDAS distinguishes treatment effect, performs better than traditional joint-only indices, and could be used as a treatment target in clinical trials and observational studies in PsA[1,3]

Figure 1. Disease Activity by PASDAS Score



HDA, high disease activity; LDA, low disease activity; MoDA, moderate disease activity; PASDAS, psoriatic arthritis disease activity score

- Secukinumab is a fully human monoclonal antibody that selectively neutralizes interleukin-17A[4]
- Secukinumab significantly improved multiple clinical domains of PsA, including signs and symptoms, physical function, QoL, and work productivity, over 104 weeks in the FUTURE 2 study (NCT01752634)[5]

METHODS

- This post-hoc analysis assessed the ability of secukinumab to achieve and sustain LDA or remission by using PASDAS through 104 weeks in the FUTURE 2 study

RESULTS

- Baseline disease characteristics were well balanced across all treatment groups (**Table 1**)

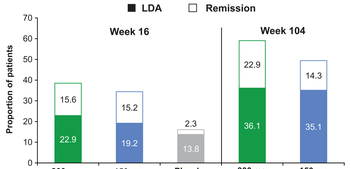
Table 1. Baseline Characteristics Across Groups[6]

Characteristic Mean (SD), unless otherwise stated	Secukinumab 300 mg s.c. (N = 100)	Secukinumab 150 mg s.c. (N = 100)	Placebo (N = 98)
Age, years	46.9 (12.6)	46.5 (11.7)	49.9 (12.5)
Female, n (%)	49 (49.0)	45 (45.0)	59 (60.2)
Time since first diagnosis of PsA in years	7.4 (7.5)	6.5 (8.2)	7.3 (7.8)
Anti–TNF-naïve, n (%)	67 (67.0)	63 (63.0)	63 (64.3)
Psoriasis ≥ 3% of BSA, n (%)	41 (41.0)	58 (58.0)	43 (43.9)
Physician Global VAS	55.0 (14.7)	56.7 (16.6)	55.0 (16.0)
Patient Global VAS	60.7 (18.9)	62.0 (19.5)	57.6 (19.8)
SF-36 PCS	36.9 (8.0)	36.2 (8.1)	37.4 (8.8)
Dactylitis count	3.6 (3.5)	4.5 (5.1)	2.7 (2.2)
Enthesitis count	2.8 (1.7)	3.2 (1.6)	3.1 (1.7)
TJC (78 joints)	20.2 (13.3)	24.1 (19.4)	23.4 (19.0)
SJC (76 joints)	11.2 (7.8)	11.9 (10.1)	12.1 (10.7)
PASDAS score	5.9 (0.9)	6.0 (1.0)	5.8 (1.0)

N, number of randomized patients. BSA, body surface area; PASDAS, psoriatic arthritis disease activity score; s.c., subcutaneous; SD, standard deviation; SF-36 PCS, Short Form-36 physical component summary; SJC, swollen joint count; TJC, total joint count; TNF, tumor necrosis factor; VAS, visual analog scale

- The proportion of patients achieving PASDAS remission increased from Week 16 to Week 104 with both secukinumab 300 mg and secukinumab 150 mg (**Figure 2**)

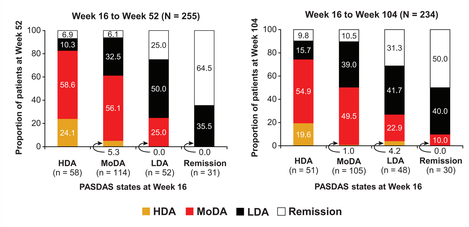
Figure 2. PASDAS Remission and LDA Through Week 104



Data were reported using mutually exclusive categories at group level and as observed analysis. LDA: 1.9< PASDAS score <3.2; remission: PASDAS score ≤1.9. Secukinumab 300 and 150 mg data are reported (approved doses).
n, number of patients in the treatment group with evaluation.
LDA, low disease activity; PASDAS, psoriatic arthritis disease activity score

- The majority of patients receiving secukinumab sustained or improved their PASDAS disease activity state at Week 16 to Week 52 and Week 104 (**Figure 3**)

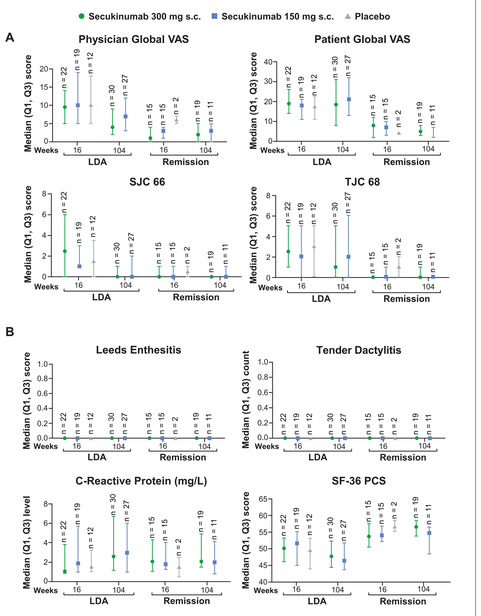
Figure 3. Shift Analysis on PASDAS Disease Activity States From Week 16 to 52 or 104



Data pooled across treatment arms (secukinumab 300 and 150 mg). Data were reported using mutually exclusive categories at group level and as observed analysis. HDA: PASDAS score ≥5.4; MoDA: 3.2≤ PASDAS score <5.4; LDA: 1.9< PASDAS score <3.2; remission: PASDAS score ≤1.9. n, number of patients in each PASDAS state at Week 16; N, total number of patients with non-missing PASDAS score data at Weeks 16 and 52/104
HDA, high disease activity; LDA, low disease activity; MoDA, moderate disease activity; PASDAS, psoriatic arthritis disease activity score

- There were generally greater improvements in Physician Global Visual Analog Scale (VAS), Patient Global VAS, swollen joint count, and tender joint count in patients receiving secukinumab achieving PASDAS remission than LDA (**Figure 4A**)
- Severity of enthesitis and dactylitis was low in patients receiving secukinumab who achieved either PASDAS remission or LDA (**Figure 4B**)
  - Greater improvements in SF-36 PCS were observed in patients achieving PASDAS remission than LDA

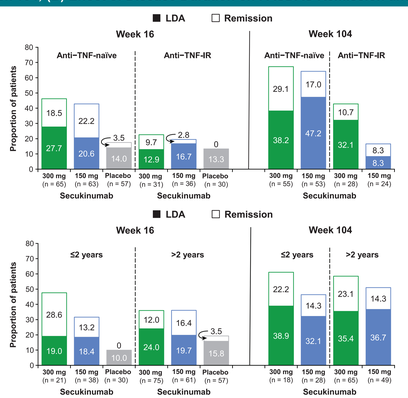
Figure 4. Median Core Components of PASDAS Remission and LDA



The median value is denoted by symbol in the figure while the upper and lower error bars represent third (Q3) and first (Q1) quartiles, respectively
n, number of patients in respective disease states at assessment
LDA, low disease activity; PASDAS, psoriatic arthritis disease activity score; Q, quartile; SF-36 PCS, Short Form-36 physical component summary; SJC, swollen joint count; TJC, total joint count; VAS, visual analog scale

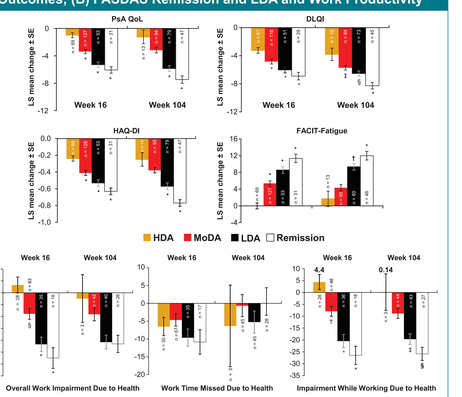
- TNF-naïve patients receiving secukinumab were more likely than TNF-IR patients to achieve PASDAS remission and LDA (**Figure 5A**)
- The proportion of patients achieving PASDAS remission and LDA with secukinumab was similar irrespective of time since first diagnosis of PsA (**Figure 5B**)
- Patients achieving PASDAS remission and LDA with secukinumab were significantly more likely to report improvement in PsA QoL, Dermatology Life Quality Index, health assessment questionnaire disability index (HAQ-DI), and Functional Assessment of Chronic Illness Therapy-Fatigue scores than patients with HDA (**Figure 6A**)
- Patients achieving PASDAS remission and LDA with secukinumab reported significant improvements in measures of work productivity (**Figure 6B**)

Figure 5. (A) PASDAS Remission and LDA by Anti–TNF Exposure up to Week 104; (B) Effect of Disease Duration on PASDAS Remission and LDA



Data were reported using mutually exclusive categories at group level and as observed analysis. LDA: 1.9< PASDAS score <3.2; remission: PASDAS score ≤1.9. Secukinumab 300 and 150 mg data are reported (approved doses).
n, number of patients in the treatment group with evaluation
IR, intolerance or inadequate response; LDA, low disease activity; PASDAS, psoriatic arthritis disease activity score; TNF, tumor necrosis factor

Figure 6. (A) PASDAS Remission and LDA and Patient-reported Outcomes; (B) PASDAS Remission and LDA and Work Productivity



Data from MMRM analysis are pooled across treatment arms. *$P < 0.0001$; †$P < 0.001$; ‡$P < 0.01$ and §$P < 0.05$ versus HDA. n, number of patients with measurements at baseline and post-baseline visits. DLQI, Dermatology Life Quality Index; FACIT-Fatigue, Functional Assessment of Chronic Illness Therapy-Fatigue; HAQ-DI, health assessment questionnaire disability index; HDA, high disease activity; LDA, low disease activity; LS, least squares; MMRM, mixed-effect model repeated measure; MoDA, moderate disease activity; PASDAS, psoriatic arthritis disease activity score; PsA, psoriatic arthritis; PsA QoL, PsA-specific quality of life; QoL, quality of life; SE, standard error

SUMMARY AND CONCLUSIONS

- A high proportion of secukinumab-treated patients achieved PASDAS remission or LDA at Week 16 vs placebo, with sustained PASDAS through Week 104
  - In the overall population, in anti–TNF-naïve patients and irrespective of time since first PsA diagnosis (≤2 years vs >2 years)
- PASDAS remission/LDA was associated with significantly greater improvement in health-related quality of life, HAQ-DI, fatigue, and work productivity
- PASDAS remission and LDA represent important states of disease activity in PsA with meaningful benefit on life impact from the patient perspective

REFERENCES

1. Helliwell PS and Kavanaugh A. *Arth Care Res*. 2014;66:749-56.
2. Helliwell PS, et al. *Ann Rheum Dis*. 2017;pii: annrheumdis-2016-211010.
3. Coates LC, et al. *Ann Rheum Dis*. 2017;76:1688–92.
4. Langley RG, et al. *N Engl J Med*. 2014;371:326–38.
5. McInnes IB, et al. *Rheumatology (Oxford)*. 2017;56(11):1993–2003.
6. McInnes IB, et al. *Lancet*. 2015;386:1137–46.

DISCLOSURES

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