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Secukinumab Retention and Effectiveness in Patients with Psoriatic Arthritis and Radiographic Axial Spondyloarthritis: 5-Year Final Results of a Prospective Real-World Study

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CONCLUSIONS

- SERENA is one of the largest observational studies conducted in Europe to collect real-world data for up to 5 years in patients with PsA and r-axSpA.
- Retention rates were high and effectiveness sustained with secukinumab treatment in patients with PsA and r-axSpA during 5 years of follow-up in a prospective real-world setting.

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INTRODUCTION

- Secukinumab is a fully human monoclonal antibody that selectively blocks interleukin-17A (IL-17A), which plays a crucial role in the pathogenesis of psoriatic arthritis (PsA) and radiographic axial spondyloarthritis (r-axSpA).[1,2]
- Secukinumab has shown long-term efficacy and a favorable safety profile in multiple clinical trials across various domains of psoriatic disease.[3-8]
- Real-world data on the long-term use of secukinumab complements clinical trial findings by providing insights from diverse patients in routine clinical settings.
- SERENA (CAIN457A3403) was a non-interventional, prospective study conducted across 19 primarily European countries for up to 5 years in patients with moderate to severe chronic plaque-type psoriasis, active PsA, or r-axSpA, who had received secukinumab for ≥16 weeks before enrolment.
- Here, we report the final 5-year results of retention and effectiveness of secukinumab in patients with active PsA or r-axSpA from the study.

OBJECTIVE

- To report the final 5-year results of retention and effectiveness of secukinumab in patients with active PsA or r-axSpA from the SERENA study.

METHODS

Study Design and Patients

- The SERENA study design has been published previously.[9]
- In brief, the SERENA study was conducted at 438 sites across 19 countries (**Figure 1**).[9,10]
- Patients with moderate to severe chronic plaque-type psoriasis, active PsA, or r-axSpA, received ≥16 weeks of secukinumab treatment before enrollment in the study.[9]
- Data were collected both retrospectively and prospectively.[9]

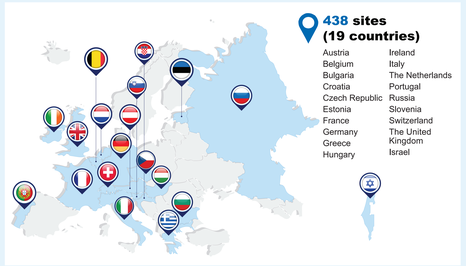
Assessments

- Secukinumab retention rate at years 1, 2, 3, 4, and 5.
- Effectiveness assessments included swollen joint count (SJC) and tender joint count (TJC) in patients with PsA, and Patient Global Assessment (PtGA) of disease activity on Numeric Rating Scale (NRS ≤2) and Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) score in patients with r-axSpA, up to 5 years.

Statistical Analysis

- Secukinumab retention rate was derived from Kaplan-Meier estimates for the proportion of patients who had been treated with secukinumab at years 1, 2, 3, 4, and 5.
- Descriptive summary of effectiveness assessments was based on observed data.

Figure 1. SERENA study participating countries



RESULTS

Demographic and Baseline Characteristics

- Overall, 522 patients with PsA and 474 patients with r-axSpA were included in the analysis.
- The mean age at inclusion was 52.5 years in the PsA group and 46.5 years in the r-axSpA group, with 44.8% and 60.5%, respectively, being male.
- Additional baseline characteristics are shown in **Table 1**.
- Before inclusion in the study, the patients had been receiving secukinumab treatment for an average of 1 year.

Table 1. Demographic and Baseline Characteristics

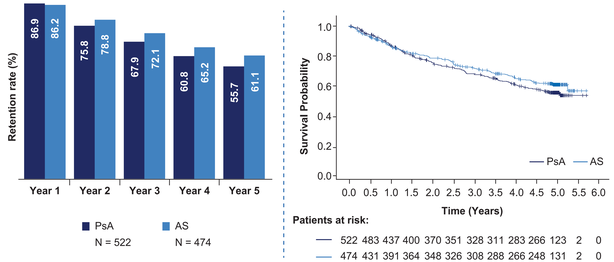
Characteristics	PsA (N = 522)	r-axSpA (N = 474)
Age (years), mean ± SD	52.5 ± 12.0	46.5 ± 11.8
Male, n (%)	234 (44.8)	287 (60.5)
Weight (kg), mean ± SD	83.6 ± 17.6	80.4 ± 16.9
Body mass index (kg/m²), mean ± SD	28.7 ± 5.5	27.0 ± 5.0
Caucasian race, n (%)	491 (94.1)	446 (94.1)
Time since diagnosis (years), mean ± SD	8.6 ± 7.4	9.8 ± 9.5
Previous biologic exposure prior to start of secukinumab, n (%)		
No biologics pre-treatment	164 (31.4)	168 (35.4)
1 biologic pre-treatment	147 (28.2)	142 (30.0)
2 biologics pre-treatments	88 (16.9)	72 (15.2)
3 or more biologics pre-treatments	123 (23.6)	92 (19.4)

N, number of patients in populations; n, number of patients in characteristic; PsA, psoriatic arthritis; r-axSpA, radiographic axial spondylarthritis; SD, standard deviation.

Secukinumab Treatment Retention

- After inclusion in the study, the treatment retention rates remained high throughout the 5-year observation period in both PsA and the r-axSpA groups (**Figure 2**).

Figure 2. Kaplan-Meier Estimates of the Retention Rate of Secukinumab in Patients With PsA and r-axSpA From Year 1 Through Year 5



PsA, psoriatic arthritis, r-axSpA, radiographic axial spondyloarthritis.

Reasons for Study Discontinuation

- The most common reasons for discontinuation in the PsA and r-axSpA groups were lack of efficacy (27.2% and 17.7%, respectively), patient decision (11.9% and 8.6%), lost to follow-up (5.7% and 6.1%), and adverse events (3.1% and 7.2%).

Effectiveness

- Tender and swollen joint counts in the PsA patients, and BASDAI and patient global assessment (PtGA) scores in the r-axSpA patients, were sustained through 5 years with secukinumab (**Table 2**).

Table 2. Effectiveness of Secukinumab in Patients With PsA and r-axSpA From Year 1 Through Year 5

Endpoints*	BL	Year 1	Year 2	Year 3	Year 4	Year 5
PsA (N = 522)						
No tender or swollen joints, n/m (%)	239/512 (46.7)	264/431 (61.3)	225/364 (61.8)	204/321 (63.6)	190/291 (65.3)	164/232 (70.7)
TJC ≤1, n/m (%)	294/441 (66.7)	302/399 (75.7)	259/331 (78.2)	237/296 (80.1)	208/270 (77.0)	179/221 (81.0)
SJC ≤1, n/m (%)	333/441 (75.5)	345/399 (86.5)	293/331 (88.5)	263/296 (88.9)	238/270 (88.1)	199/221 (90.0)
r-axSpA (N = 474)						
BASDAI Score (0-10), mean ± SD [m]	3.2 ± 2.3 [448]	3.1 ± 2.3 [351]	2.9 ± 2.2 [300]	2.7 ± 2.3 [255]	2.8 ± 2.3 [221]	2.6 ± 2.3 [178]
BASDAI CFB, mean ± SD [m]	--	−0.09 ± 1.94 [340]	−0.15 ± 2.13 [290]	−0.24 ± 2.06 [246]	−0.28 ± 1.94 [213]	−0.34 ± 1.99 [176]
PtGA NRS ≤2, n/m (%)	98/378 (25.9)	100/308 (32.5)	98/263 (37.3)	101/223 (45.3)	82/201 (40.8)	71/154 (46.1)

*Data are reported as observed.

BASDAI, Bath Ankylosing Spondylitis Disease Activity Index; BL, baseline; CFB, change from baseline; m, number of patients with non-missing data; N, total number of patients; n, number of patients with response; NRS, Numeric Rating Scale; PtGA, Patient Global Assessment (of disease activity); SJC, swollen joint count; PsA, psoriatic arthritis; r-axSpA, radiographic axial spondylarthritis; TJC, tender joint count.

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Disclosures

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