Methods: A retrospective ultrasound record-based study was conducted to compare the findings of ultrasonographic studies performed before and 6 months after the start of one of the following biologic therapies in patients diagnosed by psoriatic arthritis: TNF-inhibitors, secukinumab and ustekinumab. We included patients with a complete before-after ultrasound scan of the hands from three different rheumatology clinics. To be considered as a subclinical dactylitis two conditions were had to be achieved: non tender finger and absence of fat tissue hyperemia.

Results: Patients included: 22 on TNF-inhibitors (28 subclinical dactylitis), 14 on secukinumab (17 subclinical dactylitis) and 13 on ustekinumab (16 subclinical dactylitis). Median of line of treatment of each biologic therapy: 1, 3 and 3, respectively. In the TNF-inhibitors group, 14/28 achieved synovitis resolution, 12/26 achieved tenosynovitis resolution and 2/28 achieved enthesitis resolution. In the secukinumab group, 11/17 achieved synovitis resolution, 11/17 achieved tenosynovitis resolution and 13/17 achieved enthesitis resolution. In the ustekinumab group, 10/16 achieved synovitis resolution, 10/15 achieved tenosynovitis resolution and 13/16 achieved enthesitis resolution. Complete dactylitis resolution was achieved in 12/28, 11/17 and 10/16 patients, respectively. Differences on independent success ratio of secukinumab and ustekinumab were not statistically significant, however both groups had higher rates of independent success compared to TNF-inhibitors group ($P < 0.05$, both cases). The line of treatment did not affect the resolution rate of non-TNF-inhibitors group.

Conclusion: This is –as far as our knowledge know– the first study comparing the effect of different therapies on subclinical dactylitis. Besides the inherent limitations of a retrospective study, it seems to point that both secukinumab and ustekinumab are better therapeutic options than TNF-inhibitors. Of course, prospective further studies are needed.

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Psoriatic arthritis - clinical aspects (other than treatment)

POS1059

ULTRASOUND SYNOVITIS, UNLIKE ENTHESITIS OR CLINICAL JOINT ASSESSMENT, IS ASSOCIATED WITH JOINT DAMAGE PROGRESSION IN PATIENTS WITH PSORIATIC ARTHRITIS

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Background: We previously reported that ultrasound assessment of enthesitis (US enthesitis) is not consistent with tenderness of the entheses (clinical enthesitis) in patients with psoriatic arthritis (PsA). Although US enthesitis reflects inflammatory condition and clinical enthesitis is associated with disease activity and physical function, each of them was not associated with joint destruction by cross-sectional analysis¹. It is reported that the utility of US for predicting joint destruction remains unclear among patients with PsA².

Objectives: This study is aimed to longitudinally investigate the relationships between enthesitis or synovitis and joint damage progression in patients with PsA.

Methods: Forty-seven patients with PsA (average age of 56.5 years) underwent US and clinical examination of wrist and finger joints and 14 entheses (the bilateral humeral medial epicondyles and insertions of the triceps, distal quadriceps, proximal/distal patella, Achilles tendons, and plantar fascia). Tender or swollen joint count (TJC/SJC), Gray Scale (GS) and Power Doppler (PD) score of the joints, and US/clinical enthesitis counts were calculated. The relationships between the yearly progression in modified total sharp score (Δ mTSS) at two-time points (baseline and average follow-up of 20.4 months) and US or clinical findings were investigated.

Results: Δ mTSS was significantly correlated with age ($r=0.44$, $p=0.01$), joint GS score ($r=0.44$, $p=0.01$), and joint PD score ($r=0.38$, $p=0.03$). TJC, SJC, inflammatory marker, and disease activity showed no associations with Δ mTSS. US/clinical enthesitis counts also showed no associations with Δ mTSS (Table 1). The joint PD score, adjusted by age, was significant factor for Δ mTSS by multiple regression analysis ($b=0.50$, $p<0.001$).

Conclusion: The joint PD score or US synovitis, unlike clinical joint assessment, was significant predictive factor for joint damage progression. It is important to assess joints by US as well as clinical examination.

References: 1) Yutaro Yamada et al. Ultrasound assessment, unlike clinical assessment, reflects enthesitis in patients with psoriatic arthritis. Clin Exp Rheumatol. 2020 Apr 17. Online ahead of print.

2) van der Heijde et al. Assessing structural damage progression in psoriatic arthritis and its role as an outcome in research. Arthritis Res Ther. 2020; 22(1): 18.

Table 1. Univariate analysis of predictive factors for joint damage progression in PsA patients.

	mTSS at baseline		Δ mTSS	
	R value	p value	R value	p value
age	0.55	<0.001	0.44	0.01
PASE	0.04	0.81	0.12	0.52
PASI	-0.25	0.15	-0.01	0.96
DAS28CRP	-0.05	0.75	0.07	0.71
DAPSA	-0.01	0.94	-0.01	0.97
HAQ	0.17	0.27	-0.07	0.73
CRP	-0.13	0.38	0.23	0.20
MMP-3	0.04	0.80	0.29	0.12
biologics use	0.19	0.19	-0.11	0.54
Clinical enthesitis counts	-0.01	0.97	-0.19	0.30
TJC	-0.05	0.76	-0.10	0.58
SJC	0.21	0.18	0.13	0.48
US enthesitis counts	0.12	0.44	-0.13	0.48
joint GS score	0.08	0.60	0.44	0.01
joint PD score	0.08	0.60	0.38	0.03

PsA: psoriatic arthritis, mTSS: modified Total Sharp Score, PASE: Psoriatic Arthritis Screening and Evaluation, PASI: Psoriasis Area Severity Index, DAPSA: Disease Activity in Psoriatic Arthritis, DAS: Disease Activity Score, CRP: C-reactive protein, HAQ: Health Assessment Questionnaire, MMP-3: matrix metalloproteinase 3, TJC: tender joint counts, SJC: swollen joint counts, GS: Gray Scale, PD: Power Doppler

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POS1060

A PROSPECTIVE, LONGITUDINAL STUDY TO EVALUATE REAL-WORLD PATIENT EXPERIENCES AND TREATMENT SATISFACTION WITH SECUKINUMAB FOR PSORIATIC ARTHRITIS

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Background: Psoriatic arthritis (PsA) is an inflammatory disease that impairs quality of life. Despite therapeutic advances, up to a third of patients do not respond or are unable to sustain a treatment response. Thus, data on patient treatment experience in PsA is critical.

Objectives: To assess real-world experiences of patients with PsA treated with secukinumab.

Methods: This is an ongoing 12-month, prospective, longitudinal, web-based survey study of patients with PsA initiating secukinumab. Patient demographics and medical history are collected at baseline using a rheumatologist case report form. Patient experience data are collected at baseline, 3, 6, 9, and 12 months by patient surveys. The primary endpoint is change in the Psoriatic Arthritis Impact of Disease 12-item questionnaire (PsAID12) from baseline to 3 months. In addition, this study will explore other changes at 3 months, including PsA symptoms, treatment satisfaction with secukinumab, and other patient-reported outcome measures. Baseline and available month 3 data from patients enrolled to date were analyzed descriptively.

Results: Baseline demographic and medical history data were available for 72 patients; 32 (44.4%) were male, 59 (81.9%) were White, and 15 (20.8%) reported modifying their diet because of PsA. The mean (SD) time since symptom onset ($n = 29$) and since PsA diagnosis ($n = 53$) was 56.3 (45.6) and 34.4 (44.7) months, respectively. More than half of the patients who started treatment with secukinumab were biologic experienced (38/62; 61.3%). Primary and secondary loss of effectiveness were the main reasons for previous biologic discontinuation (Table 1). At 3 months ($n = 49$), the mean (SD) PsAID12 change from baseline was -1.8 (1.8) points. Additionally, 24.5% of patients reported their PsA symptoms to be "much better," 40.8% reported "moderately better," and 32.7% "a little better" compared with baseline; none reported "no change" or worsened symptoms. On a scale of 1-10, patients rated their overall satisfaction with secukinumab treatment at month 3 with a mean (SD) score of 6.8 (2.1). Patients were also highly