whereas active enthesitis was associated with higher PASI (5.4 ± 3.0 vs 3.7 ± 2.9 , $p=0.02$). No significant differences were found between Pso patients and HCs for the structural damage (i.e. osteoproliferation and erosions), both for joints and entheses.

Abstract SAT0304 – Table 1. * p significant Pso with CA vs HCs; ** p significant Pso with CA vs Pso without CA

Baseline data	Pso without CA (n=41)	Pso with CA (n= 23)	Healthy controls (n= 21)
Age mean ($\pm$ SD)	51.37 ($\pm$ 15.88)	49.91 ($\pm$ 14.23)	45.76 ($\pm$ 15.89)
Female n. (%)	23 (56.1 %)	10 (43.5%)	12 (57.1%)
Smoking n. (%)	12 (29.3%)	2 (9.0%)	6 (38.6%)
BMI mean ($\pm$ SD)	25 (4.0%)	27 ($\pm$ 4.3%)	24 ($\pm$ 4.2)
Clinimetric data	Pso without CA (n=41)	Pso with CA (n= 23)	Healthy controls (n= 21)
VAS pain (0-10) mean ($\pm$ SD)	2 ($\pm$ 2.4)	4 ($\pm$ 2.4) * **	2 ($\pm$ 2.35)
HAQ mean ($\pm$ SD)	0 ($\pm$ 0.31)	0 ($\pm$ 0.45) * **	0 ($\pm$ 0.21)
Joints tenderness mean	0.34 per patient	2.56 per patient * **	0.17 per patient
Comorbidities	Pso without CA (n=41)	Pso with CA (n= 23)	Healthy controls (n= 21)
Obesity n. (%)	4 (9.8%)	0 (0%)	1 (4.8%)
Diabetes Mellitus n. (%)	3 (7.3 %)	0 (0 %)	2 (9.5 %)
Hypertension n. (%)	7 (17.0 %)	7 (30.4 %)	5 (23.8 %)
Metabolic syndrome n. (%)	5 (12.2 %)	3 (13.4 %)	4 (19.0 %)
Fatty liver disease n. (%)	5 (12.2 %)	4 (17.4 %)	1 (4.8 %)
Uveitis n. (%)	2 (4.9 %)	0 (0 %)	0 (0 %)
Depression n. (%)	2 (4.9 %)	3 (13.0 %)	0 (0 %)
CV disease n. (%)	3 (7.3 %)	0 (0 %)	1 (4.8 %)

Conclusions: In Psoriasis subclinical US active synovitis and/or enthesitis are present in 20%–30% of patients. In Pso the comparison between groups, with or without CA, show no significant difference in active subclinical synovitis or enthesitis, but Pso patients with CA present more frequently US tenosynovitis or paratenonitis. In Pso subclinical US synovitis or enthesitis are significantly associated with higher NAPS and PASI. The relevance of these results, to possibly identify a subgroup of Pso more prone to develop PsA, deserve further investigation and prospective evaluation.

Disclosure of Interest: None declared

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SAT0305

ASSESSMENT OF SUB CLINICAL HAND JOINT SYNOVITIS IN PATIENTS WITH PSORIATIC ARTHRITIS AND PSORIASIS BY ULTRASOUND AND ITS RELATIONSHIP WITH CLINICAL DISEASE ACTIVITY

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Background: Articular involvement in Psoriatic arthritis (PsA) can have diverse presentations; oligoarticular involvement is predominant in early disease. Ultrasound (US) detected subclinical synovitis can be present in early PsA and a substantial portion of oligoarthritic PsA patients are being reclassified as having polyarthritides.¹ Asymptomatic US synovitis and enthesopathy can be present in Psoriasis (Pso) patients which probably indicate subclinical musculoskeletal involvement.²

Objectives:

- To evaluate sub-clinical synovitis of hand joints in patients with PsA and Pso by B-mode and Power Doppler US.
- Correlation of PsA and Pso disease activity with US detected synovitis.

Methods: 27 patients of PsA (disease duration <2 years, no clinical evidence of hand joint involvement), 36 Pso patients and 30 controls were recruited. PASI and DAPSA score used for assessment of cutaneous and articular disease activity respectively. US [grey scale (GS) and power Doppler (PD)] used to assess synovitis of hand joints. A GS score ≥ 2 and/or a PD score ≥ 1 were used to identify US detected synovitis.

Results: Significantly more patients with PsA had sub-clinical hand joint synovitis than controls (62.96% versus 20%, p value=0.001, relative risk: 3.148, 95% C.I.: 1.455 to 6.814), and Pso patients [(27.78%), p value=0.0095, relative risk=2.267, 95% C.I.: 1.243 to 4.135]. Median number of joints involved in PsA group was 4 (inter quartile range: 2–5). Among 810 hand joints scanned in PsA group, 59 (7.28%) joints showed evidence of sub-clinical synovitis. Wrist joint was most commonly involved (28.81%), followed by DIP3 (13.56%) and MCP3 (10.17%). Less involvement noted in MCP4, MCP5, PIP1, PIP5 and DIP5 (1.69%). In Pso patients, evidence of sub-clinical synovitis was not significantly different from control. (p value=0.5689, relative risk=1.389, 95% C.I.: 0.5710 to 3.378). However, wrist and DIP involvement was significantly more in Pso than control. No correlation noted between numbers of joints with subclinical synovitis with DAPSA or PASI score.

Conclusions:

- Almost two third patients with early PsA had PDUS evidence of sub-clinical synovitis in hand joints, most commonly in wrist joint followed by DIP3 and MCP3.
- No significant increase of sub-clinical synovitis in Pso compared to control group. However, wrist and DIP joint involvement was significantly more in Psoriasis.
- There was no correlation between number of joints with sub-clinical synovitis and disease activity indices.

REFERENCES:

- Freeston JE, Coates LC, Nam JL, et al. Is there subclinical synovitis in early psoriatic arthritis? A clinical comparison with gray-scale and power Doppler ultrasound. *Arthritis Care Res (Hoboken)* 2014 Mar;66(3):432–9.
- Naredo E, Möller I, de Miguel E, et al. High prevalence of ultrasonographic synovitis and enthesopathy in patients with psoriasis without psoriatic arthritis: a prospective case-control study. *Rheumatology (Oxford)* 2011;50 (10):1838–48.

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SAT0306

FINGER FLEXOR TENDON PULLEY COMPLEX INVOLVEMENT IN PSA DACTYLITIS: AN ULTRASONOGRAPHY STUDY

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Background: Dactylitis is a hallmark of psoriatic arthritis (PsA) occurring in around 40% of cases at some point in the disease course. At the micro anatomical level PsA is strongly linked to disease localisation to entheses and other sites of high mechanical stress. Recently high resolution MRI has shown prominent abnormalities at the mini-entheses of the flexor tendon pulleys may be common

Objectives: . In this study we aimed to understand the changes within the pulleys for patients with PsA, with or without dactylitis to explore the role of the pulley disease in the dactylitis.

Methods: Consecutive 20 cases of PsA with dactylitis were recruited and had an US scan of the A1, A2 and A4 pulleys of the digit with dactylitis and the contralateral side. A high resolution probe (22 MHz) was used to explore a) the thickness of the pulleys, b) the presence of Doppler signals. A comparison was made within digits with or without dactylitis

	Dactylitis (-)	Dactylitis (+)	p
A1- longitudinal	0.69 (0.10)	1.00 (0.34)	0.001
A2- longitudinal	0.77 (1.11)	0.75 (0.15)	<0.001
A4- longitudinal	0.50 (0.09)	0.65 (0.15)	<0.001
A1- transverse	0.68 (0.10)	1.01 (0.33)	<0.001
A2- transverse	0.51 (0.09)	0.73 (0.16)	<0.001
A4- transverse	0.50 (0.08)	0.71 (0.27)	<0.001

Abstract SAT0306 – Figure 1. The increased thickness and the presence of Doppler signals in the A1 pulley in a digit with dactylitis in longitudinal (A and B) and transverse (C and D)

Results: Half of the A1 pulleys with dactylitic digits had Doppler signals (10/20, 50%), which was less common in A2 (6/20 (30%)) and A4 pulleys (6/20 (30%)) (figure). The digits without dactylitis had Doppler signals less frequently (A1: 1/19 (5%); A2: 1/19 (5%) A4: 1/19 (5%))

A1, A2 and A4 pulleys were significantly thicker in dactylitis fingers compared to fingers without dactylitis, both in longitudinal and transverse planes (table 1).

Conclusions: This study demonstrates that pulleys contribute to the pathogenesis of dactylitis with increased vascularity and thickening, probably due to the micro-enthesitis at the level where the flexor tendons are exposed to high mechanical stress. This is important to understand the anatomical basis of a complex disease feature in PsA, dactylitis

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SAT0307

IMPACT OF THE MODIFIED RHEUMATIC DISEASE COMORBIDITY INDEX (mRDCI) ON DRUG SURVIVAL OF FIRST LINE ANTI-TNF α DRUGS IN PATIENTS AFFECTED WITH PSORIATIC ARTHRITIS IN REAL LIFE SETTING

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Background: Psoriatic Arthritis (PsA) is a chronic condition resulting in significant physical disability and, in many cases, accelerated mortality. Studies have shown that patients with PsA suffer also from associated comorbidities, including cardiovascular diseases, obesity and metabolic syndrome, diabetes, osteoporosis, malignancy and depression; these could also play a role in determining discontinuation from therapy, especially if anti-TNF α drugs are prescribed.

Objectives: Our study's goal is to demonstrate the impact of comorbidities on drug survival of first line anti-TNF α treatment in a cohort of patients affected with PsA.

Methods: We retrospectively assessed 208 patients, (136 female, 72 male) mean age ($\pm$ SD) 51.35 $\pm$ 12.34 years, fulfilling the CASPAR criteria for PsA who underwent first line anti-TNF α therapy in two centres for a mean duration of 23.34 $\pm$ 15.50, from 2011 to 2016. Disease characteristics were registered at first entry. To evaluate the burden of comorbidities we used the modified Rheumatic Disease Comorbidity Index (mRDCI),¹ a validated score including lung illnesses, cardiovascular diseases, stroke, hypertension, gastrointestinal disorders, diabetes, fractures, depression, obesity, kidney diseases and cancer. The mRDCI was scored at baseline as well. Drug retention was analysed using Kaplan-Meier curves. Cox regression models were used to estimate the inference of mRDCI and several disease characteristics on drug discontinuation. Goodness of fit of the final model was assessed comparing Cox-Snell residuals to Nelson-Alen cumulative hazard function.

Results: Drug persistence in first line therapy was significantly higher in patients with mRDCI <4 (70.43%) than in those with mRDCI $\geq$ 4 (45.45%). Compared to mRDCI $\geq$ 4, those with mRDCI <4 showed significantly higher drug survival rate ($p=0.018$). Multivariate Cox model showed that mRDCI $\geq$ 4 (HR 1.94) and female gender (HR 2.39) were strong predictors of drug discontinuation. Nelson-Alen hazard function followed very closely Cox-Snell residuals showed final model fitted well the data except for large values of time.

Abstract SAT0307 – Figure 1. Drug survival in first-line anti-TNF α treatment assessed by Kaplan-Meier and comparison among patients with mRDCI <4 and mRDCI $\geq$ 4.

Abstract SAT0307 – Figure 2. Nelson-Alen Hazard function and Cox-Snell residual

Conclusions: This study shows that an high mRDCI at baseline negatively impacts the persistence on first line anti-TNF α treatment in patients affected with PsA in real life setting; hence Rheumatologists should take into account comorbidities in the management of PsA and in administering anti-TNF α therapy as these may condition the persistence on therapy.

REFERENCE:

- [1] Staetgens, et al. Content and construct validity of the Rheumatic Diseases Comorbidity Index in patients with gout. *Rheumatology* 2015 Sep;54 (9):1659–1663.

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SAT0308

PROSPECTIVE OBSERVATIONAL STUDY ON OCULAR INVOLVEMENT IN PATIENTS AFFECTED BY MODERATE TO SEVERE PSORIATIC ARTHRITIS

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Background: Psoriatic Arthritis (PsA) is a chronic inflammatory arthritis typically often associated to several comorbidities. The presence of eye involvement in terms of uveitis is well known in PsA patients while retinal abnormalities and dry eye need to be characterised

Objectives: The aim of the study was to analyse subclinical retinal abnormalities and dry eye in a cohort of PsA patients who were naïve to biologic treatments

Methods: In a prospective cross-sectional study, consecutive PsA patients without clinical eye involvement were enrolled (time frame January 2017-December 2017). Joint disease activity and ESR and CRP were measured. Functional and morphological eye assessment included: complete ophthalmological examination, ocular surface disease index (OSDI), Schirmer test, BUT, spectral-domain optical coherence tomography (SD-OCT), standard automated perimetry (SAP, measured as mean defect – MD – and pattern standard deviation – PSD), and fundus perimetry (FP). Data were compared to findings from the eyes of 24 age/sex matched healthy controls (HC).

Results: A total of 58 eyes from 29 PsA patients (21 women and 8 men; age 52.7 $\pm$ 13.3 years) and 48 eyes from HC (14 women and 10 men; age 47.6 $\pm$ 15 years) were evaluated.

Overall, most of the PsA patients showed a normal Schirmer test, with the exclusion of three patients (10.3%). PsA patients showed abnormal OSDI in 55.2% and lower BUT in compared to HC ($p<0.001$, Fig.1A). ESR resulted positively correlated with OSDI ($p<0.001$, $r=0.6$, Fig.1B), and negatively related with Schirmer test ($p=0.005$, $r=-0.5$, Fig.1C) and BUT ($p=0.04$, $r=-0.4$, Fig.1D). In the PsA group, SAP tests showed a lower MD ($p<0.0001$) and a higher PSD ($p=0.0043$) in