SAT0436

PATIENTS WITH PSORIATIC ARTHRITIS WHO ACHIEVE THE MDA RESPONSE SHOW LESS SUBCLINICAL ATHEROSCLEROSIS THAN THOSE IN DAPSA REMISSION

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Background: Although the MDA response and DAPSA remission are treatment objectives proposed by EULAR for a proper management of psoriatic arthritis (PsA), there is no clear consensus on which of the two is the most advisable in clinical practice. Some studies suggest that patients who reach a sustained MDA have less subclinical atherosclerosis, but whether the same applies to DAPSA remission is unknown at present.

Objectives: To compare the frequency of subclinical atherosclerosis in patients with PsA that reach the MDA response versus those who achieve DAPSA remission.

Methods: One hundred-forty consecutive patients with PsA (CASPAR criteria) treated with biological and non-biological systemic agents were included. SCORE risk charts were used to estimate cardiovascular risk (CVR). The presence of plaques and / or carotid intima-media thickness (cIMT) > 0.9mm in carotid ultrasound defined subclinical atherosclerosis. These findings were analyzed in patients in MDA and in those in DAPSA remission.

Results: According to the SCORE tables, 42.8%, 35.7% and 21.5%, had low, moderate and high-very high CVR, respectively. There was a linear association between cIMT values and the SCORE risk categories ($p < 0.0005$). The best cut-off point to define a high CVR (by SCORE plus carotid plaques) corresponded to a cIMT > 0.63mm, with an area under the ROC curve of 0.75 (0.66-0.82), sensitivity 85.7%, specificity 56.1% (Figure 1). Ninety-seven of the 140 patients (69.3%) were in MDA situation, while 60 (42.8%) were in DAPSA remission. The average value of the cIMT was 0.64 ± 0.12 mm. One in 4 patient had atheroma plaques, while 19 (13.6%) had a cIMT > 0.9mm. There were no differences in cIMT values of patients with (0.66 ± 0.12 mm) and without (0.63 ± 0.12 mm) DAPSA remission. An identical percentage (25%) of patients with and without DAPSA remission had carotid atheroma plaques. On the other hand, there were differences between patients with (6.2%) and without (30.2%) MDA in terms of cIMT values > 0.9mm, $p < 0.05$. 32.6% of non-MDA and 23.7% of MDA patients had carotid plaques, p NS.

Conclusion: Patients who achieve an MDA response show less subclinical atherosclerosis than those in DAPSA remission. These findings suggest that the MDA response better discriminates the presence of subclinical atherosclerosis, and therefore, it could be a more complete therapeutic target than DAPSA remission.

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SAT0437

GENDER DIFFERENCES IN PSA OUTCOME PARAMETERS AND THEIR CORRELATION WITH SKIN INVOLVEMENT: A CROSS-SECTIONAL ANALYSIS OF RABBIT-SPA PATIENTS

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Background: PsA is a complex disease characterised by a heterogeneous pattern including different clinical symptoms of musculoskeletal (MSK) inflammation like arthritis, enthesitis, dactylitis and axial involvement as well as skin and nail involvement. There are differences in these disease patterns between female and male patients which need to be taken into account.

Objectives: To assess the differences between female and male PsA patients in the extent of psoriatic skin (body surface area, BSA) and joint (tender joint count 68, TJC68; swollen joint count 66, SJC66); disease, composite scores (disease activity in PsA, DAPSA; disease activity score 28, DAS28), and patient-reported outcomes (PROs) and to correlate the extent of skin disease with PROs.

Methods: RABBIT-SPA is a prospective longitudinal cohort study including PsA patients enrolled at start of a new csDMARD, bDMARD or tsDMARD. Gender specific differences in outcome parameters are compared using Wilcoxon resp. t-test at baseline visit. Spearman correlation coefficient was calculated to analyse the relationship between BSA and outcome parameters.

Results: 722 PsA patients were included in this analysis. Women were slightly older (52 vs 50 yrs), had longer disease duration (7 vs 5.8 yrs), more comorbidities and were more often obese. Men had a significantly higher skin involvement than women measured by BSA and physician skin assessment (physSk, table 1). Women had significantly higher joint involvement as measured by TJC68, DAPSA, DAS28, and patient musculoskeletal assessment (patMSK). Impact of disease as measured by PSAID and patient global assessment (patGA) was more severe in women than in men and also physical function (HAQ) was lower in women than in men (table 1). Despite the higher skin involvement in men, the DLQI was equally high in women and men with more than 50% of patients in reduced quality of life state (table 1).

Table 1.

Parameter	Female N=424	Male N=298
SJC66	3.4 (5)	2.7 (3.8)
TJC68	7.9 (8.7)	5.7 (7)
BSA (0-100)	6.6 (13)	10.8 (16.5)
physGA (NRS 0-10)	5.3 (1.9)	5.2 (2)
physSk (NRS 0-10)	3.1 (2.7)	3.7 (2.6)
physMSK (NRS 0-10)	5.2 (2.1)	4.9 (2.3)
DAPSA	24.2 (13.8)	20.1 (12.3)
DAS28-CRP	3.7 (1.2)	3.4 (1.2)
patGA (NRS 0-10)	5.5 (2.1)	4.9 (2)
patSk (NRS 0-10)	3.9 (3.1)	3.9 (2.8)
patMSK (NRS 0-10)	5.8 (2.2)	5 (2.5)
DLQI (0-30)	6.1 (6.8)	5.3 (5.7)
HAQ (0-3)	1.1 (0.6)	0.7 (0.6)
PSAID (0-10)	4.8 (2.3)	3.9 (2.2)

Results are presented as mean $\pm$ SD.

BSA was not correlated with SJC66 or TJC68, DAPSA, DAS28, phys MSK, patGA and patMSK neither in men nor in women. BSA was however positive correlated with DLQI, patSk, and physSK and slightly with physGA in both genders. The PSAID is correlated to BSA in women only.

Conclusion: Women and men show differences regarding many PsA criteria. Men have a more severe skin involvement, while women have higher burden of joint involvement. In addition in the patient reported parameters women show significantly higher values than men except for the skin specific parameters. Notably, although skin involvement is not correlated with most PsA activity parameters, around 50% of patients in specialised rheumatologic care are negatively affected in their quality of life by psoriatic skin disease. Therapeutic decisions need to take into account the complexity of the patients' symptoms as well as gender differences.

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SAT0438

REAL-WORLD TREATMENT PERSISTENCE WITH BIOLOGIC DISEASE MODIFYING ANTIRHEUMATIC DRUGS AMONG GERMAN PATIENTS WITH PSORIATIC ARTHRITIS

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Background: Persistence rates of biologic disease modifying antirheumatic drugs (bDMARDs), which refer to the duration of time from initiation to discontinuation or switch of therapy, have been shown to vary considerably depending on the country, types of health centers, as well as the specific drug being investigated. Evidence on treatment persistence of psoriatic arthritis (PsA) patients in Germany is scarce.

Objectives: Our aim was to study drug survival of bDMARDs in a German real-world cohort of adult biologic-naïve psoriatic arthritis patients.

Methods: We utilized the German "Institut für angewandte Gesundheitsforschung Berlin" (InGef) research database consisting of about 4 million covered lives structured to represent the German population in terms of age and gender according to the Federal Office of Statistics (DESTATIS). Thereof, 2.9 million patients were continuously enrolled in the study period spanning from January 1st, 2013 and December 31st, 2018. For the analysis of persistence rates, the study population was identified based on the International Classification of Diseases, German Modification (ICD-10-GM) and claims records of biologic prescriptions based on ATC codes. Adult patients who had a diagnosis of psoriasis arthritis (L40.5 in combination with M07.0 or M07.1 or M07.2 or M07.3) in the inpatient or outpatient setting, and a claims record of biologic treatment licensed for psoriasis arthritis between January 1st, 2014 to December 31st, 2017 were included. Patients with Crohn's disease (K50), ulcerative colitis (K51), ankylosing spondylitis (M45), and rheumatoid arthritis (M05-M07) were excluded. Biologic-naïve patients were identified as those who had no prior record of bDMARDs prescription during the 12 months before the index date ('washout'). The index date was defined as the first claim for a biologic agent. Non-persistence occurred if a treatment gap exceeding the days of supply plus 60 days or a switch to a bDMARD other than the index therapy was observed. Days of supply were calculated based on the daily defined doses defined by the WHO for the respective bDMARDs. Kaplan-Meier curves were plotted to show the persistence of different biologics. The log-rank test was used to test for differences in the 1-year persistence rate.

Results: Among 10,954 patients with a diagnosis of PsA, 348 biologic-naïve patients aged 18 years or above were identified. The one-year overall persistence rate was 57.5% for all bDMARD compounds. Reasons for non-persistence were switches to a different bDMARD agent in 15.8% of patients and 26.7% discontinued treatment. The highest persistence rate was observed for ustekinumab (81.3%), which was significantly higher than the respective rates for adalimumab (58.1%), certolizumab pegol (51.7%), etanercept (51.0%), or secukinumab (54.7%).

Conclusion: Persistent rates for a real-world cohort of German PsA patients are modest with significant variations among different bDMARD therapies.

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SAT0439

POWER DOPPLER ULTRASOUND ASSESSMENT OF A1 PULLEY. A NEW TARGET IN PSORIATIC ARTHRITIS?

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Background: In the last few years annular pulleys inflammation has been highlighted as a possible key pathogenetic factor in psoriatic dactylitis, first with magnetic resonance imaging (MRI)¹, then, in a very recent paper², with power Doppler (PD) ultrasound (US). However, the prevalence of PD US inflammation of annular pulleys in psoriatic arthritis (PsA) patients compared to rheumatoid arthritis (RA) patients has not been investigated yet.

Objectives: To determine the prevalence of PD US findings indicative of A1 pulley inflammation in PsA patients and in controls with RA and to preliminarily investigate the correlation between A1 pulley inflammation and disease activity (DAPSA).

Methods: Consecutive patients with PsA and RA were included in this cross-sectional single-centre study. A rheumatologist recorded demographic and clinical data and in the same day another rheumatologist performed the US examination using a MyLab ClassC (Esaote, Genova, Italy) equipped with a 10-22 MHz linear probe. A1 pulleys of fingers 2nd to 5th were assessed bilaterally adopting longitudinal and transverse scans. The following pathological US findings were recorded: inflammation of the pulley (defined as the presence of PD signal within a thickened pulley) and tenosynovitis of the digital flexor tendons at finger level according to OMERACT definition.

Results: Sixty patients were enrolled: 30 with PsA and 30 with RA. Inflammation of A1 pulley was found in 15 out of 240 fingers (6.3%) of 8 (26.7%) PsA patients and in 1 out of 240 fingers (0.4%) of 1 (3.3%) RA patients (p<0.01 and p=0.03 respectively). Both pulley inflammation and tenosynovitis were correlated with DAPSA (Rpb=0.56, p<0.01 and Rpb=0.48, p<0.01). In fact, 7 out of 8 (88%) PsA patients with at least one inflamed A1 pulley had a moderate/high disease activity score. The regression linear analysis (R2=0.36, adjusted R2=0.31) showed that A1 pulley inflammation was correlated with higher DAPSA scores (β=0.43, p=0.03). No significant association was reported between A1 pulley inflammation and past or current episodes of dactylitis (p=0.09). However, the only current dactylitis assessed showed A1 pulley inflammation.

Conclusion: This pilot study demonstrated that ultrasound A1 pulley inflammation, defined as the presence of power Doppler signal within a thickened pulley, is relatively common at patient level in psoriatic arthritis and seems to be characteristic of PsA compared to RA. In psoriatic arthritis patients, a positive significant correlation was found between ultrasound A1 pulley inflammation and disease activity.

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SAT0440

METHOTREXATE SURVIVAL RATE IN PATIENTS WITH PSORIATIC ARTHRITIS FROM PSORIATIC ARTHRITIS -INTERNATIONAL DATABASE (PSART-ID) COHORT

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