SAT0353 GEOGRAPHICAL DIFFERENCES IN PSORIATIC ARTHRITIS: A TRANSATLANTIC COMPARISON

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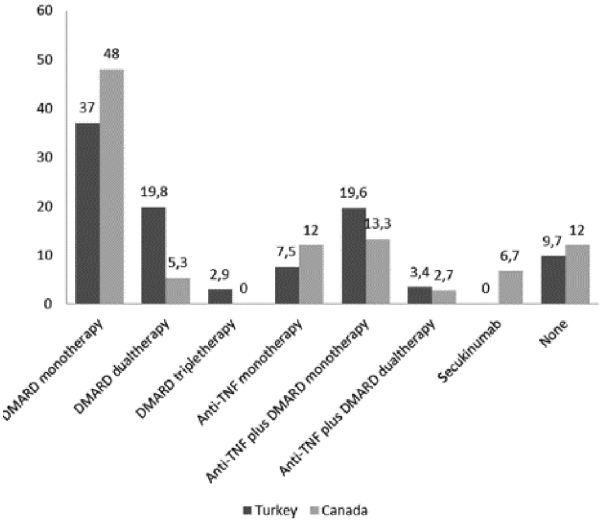
Background: The environmental and genetic factors play a crucial role in the pathogenesis of psoriatic arthritis (PsA) which may cause a difference in disease characteristics for patients from different geographical regions.
Objectives: The aim of the study was to explore the disease characteristics, treatment choices and comorbidities in patients with PsA in different countries to see the impact of geographic factors.
Methods: PsArt-ID (Psoriatic Arthritis- International Database) is a prospective, multicentre registry in PsA, which was initially developed in Turkey in 2014, with participation of Canada since 2015 and Italy since 2017. Patients with PsA are consecutively registered to this registry with the aim of investigating the real-life data. Patient characteristics across Turkey (n=1283) and Canada (n=119) are compared for this analysis.

Abstract SAT0353 – Table 1. The demographics and clinical characteristics in two countries

	TURKEY	CANADA	p value
Female*	827/1283 (64.5)	60/119 (50.4)	**0.002**
Age (years)	47 (36–56.7)	49 (34–61)	**<0.001**
BMI (kg/m^2)	27.47 (24.5–31.2)	29 (23.7–33.5)	**0.013**
At onset age for PsA	36 (29–49.7)	39 (30–48)	0.058
Smoking (package/years)	10 (3–19.7)	14.5 (5–26.25)	**0.007**
Education years	8 (5–12)	15 (13–16)	**<0.001**
SJC	2 (1–5)	2 (1–7)	0.461
TJC	4 (2–8)	6.5 (2–17)	0.340
TEP	2 (1–2)	1 (1–2)	**0.021**
BSA	5 (1–13.75)	1 (0–5)	**<0.001**
BASDAI	37 (20–54)	38 (22–58)	**0.027**
Pt GA	45 (20–60)	31 (12–70)	**<0.001**
PGA	30 (20–50)	34 (18–66)	**<0.001**
Pain VAS	40 (20–60)	33 (18–78)	**<0.001**

TJC: tender joint counts; TEP: tender entheseal points; BSA: body surface area; PtGA: patient global activity; PGA: physician global activity. All data were given n/total n (percentage (%))* or median (first-third percentiles).



Abstract SAT0353 – Figure 1. The distribution of the treatment choices in Turkey and Canada, excluding patients with new diagnosis at the time of recruitment. DMARD: Disease-modifying anti-rheumatic drug; anti-TNF: anti-tumour necrosis factor. All data were given n/total n (percentage (%).

Results: Canadian patients were older at the time of recruitment (Table). They also were more frequently smokers, had higher duration of education and higher BMI than patients in Turkey. Patients in Canada had more frequent polyarthritis (66.7% vs 39.6%, p<0.001), DIP joint disease (34.2% vs 16%, p<0.001), dactylitis (38.1% vs 29%, p=0.037) nail involvement (55.9% vs 45.7%, p=0.008) and higher number deformed joints (29.3% vs 20.7%, p=0.035) whereas Turkish patients had oligoarthritis more often (37.6% vs 24.8%, p=0.016). For disease activity, tender and swollen joint counts were similar for whereas the skin activity was higher in Turkish patients. There were no major differences between countries regarding treatment choices with similar frequencies of patients on biologic therapies (34.5% vs 30.2%, p=0.339) (figure 1). Although the numbers were very low, there was more frequent cancer in Canada than Turkey (4.3% vs 1.4%, p=0.022) whereas all the other comorbidities were similar.
Conclusions: Geographical differences have impacts on the disease features in PsA, which may be due to genetic, environmental and cultural differences. The treatments are comparable suggesting a similar approach by the physicians.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2018-eular.2728

SAT0354 THE WORK PRODUCTIVITY AND ACTIVITY INDEX SPECIFIC HEALTH PROBLEM (WPAI-SHP) AND ITS ASSOCIATION WITH PSORIATIC ARTHRITIS (PSA) ACTIVITY BY DISEASE ACTIVITY INDEX FOR PSORIATIC ARTHRITIS (DAPSA) IN ROUTINE CARE: DATA OF THE RUSSIAN PSORIATIC ARTHRITIS REGISTRY (RU-PSART)

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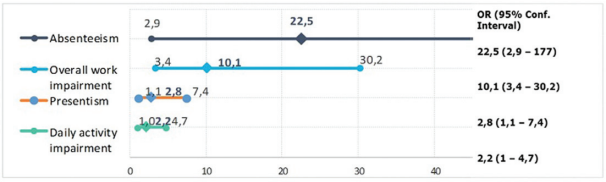
Background: Psoriatic arthritis (PsA) can lead to impaired physical function and work productivity due to chronic inflammation. The goal of PsA treatment is minimal disease activity (MDA) or Remission/Low Disease Activity (REM/LDA) attainment by DAPSA. But there is limited data about the association between PsA activity and work productivity in routine care. The Russian Psoriatic Arthritis Registry (RU-PsART) collected data from 25 rheumatology clinics in the Russian Federation regions.
Objectives: evaluate the association between attainment of REM/LDA by DAPSA and the WPAI-SHP in PsA pts in routine care.
Methods: 294 (M/F–133/161) pts with PsA, diagnosed according to CASPAR criteria, mean age 41.2±1.9 (Min 21 – Max 72) years (yrs.), PsA duration 6.1±5.3 (Min 0 – Max 31) yrs., psoriasis duration 13.6±10.7 (Min 0.2 – Max 54.8) yrs. were included in the RU-PsART after signing consent participation forms. Pts underwent evaluation of PsA activity by DAPSA and considered REM≤4, LDA≤14, moderate disease activity (MDA) ≤28, high disease activity (HDA) >28 at baseline. 175 out of 294 pts fulfilled WPAI-SHP. DAPSA and WPAI-SHP at the same time were available in 135 out of 175 pts. 87 out of 135 patients were able to work and operate. At the time of evaluation 82 out of 135 pts were taking sDMARDs, 19 out of 135 pts – bDMARDs±sDMARDs, 11 out of 135 pts – NSAID and in 23 out of 135 pts data were missing. Overall work impairment, daily activity impairment, absenteeism and presentism were calculated. M±SD,%, ORs with 95% CI were performed. All CI >1 were considered to indicate statistical significance.
Results: Daily activity impairment was found in 91 out of 135 pts (67%), overall work impairment – in 64 out of 87 pts (74%), presentism – in 47 out of 87 pts (49%), absenteeism – in 31 out of 87 pts (36%). 40 pts out of 135 (29.6%) had REM/LDA and 95 out of 135 pts (62.9%) had MDA/HAD by DAPSA accordingly at the time of the assessment. Among pts with MDA/HAD daily activity impairment, overall work impairment, presentism and absenteeism were seen in significantly more cases compared to pts with REM/LDA – in 69 out of 95 pts (73%) and in 22 out of 40 pts (55%), OR 2.17 [1.0–4.69]; in 54 out of 62 pts (87%) and in 10 out of 25 pts (40%), OR 10.13 [3.40–30.16]; in 38 out of 62 pts (38%) and in 9 out of 25 pts (36%), OR 2.81 [1.07–7.38]; in 30 out of 62 pts (48%) and in 1 out of 25 pts (4%), OR 22.5 [2.86–176.80] accordingly (Fig.1).



Abstract SAT0354 – Figure 1. Interrelation between WPAI-SHP and PsA activity by DAPSA. ORs with 95% CI.

Conclusions: Work disability is commonly found in PsA pts in routine care. REM/LDA status by DAPSA was associated with less disability and better work productivity.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2018-eular.2694

SATURDAY, 16 JUNE 2018

Crystal diseases, metabolic bone diseases and bone diseases other than osteoporosis

SAT0355 THE VALIDITY OF GOUT DIAGNOSIS IN PRIMARY AND SECONDARY CARE – RESULTS FROM A PATIENTS SURVEY

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Background: Gout affects 1%–2% of adults worldwide being the most common inflammatory arthritis and usually managed in primary care. The gold standard for definitive diagnosis of gout is the presence of monosodium urate crystals (MSU) in joints or tissues and the latest classification criteria from ACR-EULAR also have this as a central item. Microscopy is however seldom performed in primary care today. Although not intended as diagnostic there are several classification criteria, such as the Mexico and the Netherlands criteria that do not include microscopy.
Objectives: The aim of this study was to validate the diagnosis of gout in primary and secondary care according to the Mexico and the Netherlands criteria and items thereof through a patient survey.
Methods: All patients above 18 with an ICD10-diagnosis of gout at a visit in primary and secondary care$^{Jan\ 2015}$ through February 2017) were identified from 12 primary care centres and one rheumatology clinic within the Western Sweden Health Care Region. They were sent a questionnaire regarding comorbidities, demographics and gout characteristics. To test the validity of their gout diagnosis, questions of the two gout classification criteria Mexico and the Netherlands were posed. Self-reported knowledge about having gout, was included as an anchor point for the diagnosis. Positive predictive values (PPV) were calculated for these definitions. Structured telephone interviews collecting similar information were performed in 10% of non-responders. The ACR/EULAR criteria was not used, since it includes identification of MSU crystals and imaging as central items.

Abstract SAT0355 – Table 1. Positive predictive values for different classification criteria, anchor points for gout diagnosis and common items of classification criteria

Definitions used for gout diagnosis	Primary care (n=784)	Secondary care (n=84)
Netherlands≤4, n(%)	57 (7.7)	3 (3.8)
Netherlands≥8, n(%)	522 (70.7)	62 (78.5)
Mexico_score≥4, n(%)	548 (74.2)	64 (82.1)
Self-reported gout diagnosis (%)	691 (90.2)	78 (94.0)
Selected items (self-reported) from classification criteria		
Hyperuricemia, n(%)	320 (41.8)	55 (66.3)
Men, n(%)	629 (80.2)	62 (73.8)
MI§ or Stroke or Hypertension, n(%)	598 (78.1)	70 (84.3)
Tophus, n(%)	107 (14.1)	26 (31.3)
Any MTP1 attack, n(%)	472 (62.4)	39 (47.6)
Swollen and red joint at attack, n(%)	583 (76.7)	77 (92.8)
Individual joints ever involved in attacks:		
1 joint, n(%)	205 (27.1)	3 (3.7)
>1 joints, n(%)	471 (60.1)	73 (86.9)

§ Myocardial infarction

Results: 1589 individuals with a gout diagnosis were identified. 868 (54.6%) individuals responded. Mean age was 71 years and the proportion of men was 80%. 89% of secondary care patients had ever been treated with Allopurinol compared to 71% in primary care. The PPVs ranged from 78.5% to 94%, in secondary care, being lowest for the Netherlands criteria and highest for self-reported gout (table 1). Corresponding PPVs were marginally lower in primary care (but still over 70% for all criteria). Similar results were found among those interviewed by telephone (not shown).
Conclusions: The majority of patients diagnosed with gout in both primary and secondary care have had clinical symptoms compatible with the Netherlands and Mexico criteria for gout. Diagnoses of gout identified through health care registers is therefore a valid and useful tool for epidemiological research. Patients with gout in secondary care reported more features of gout than patients in primary care.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2018-eular.1998

SAT0356 FACTORS INFLUENCING TOPHUS RESOLUTION IN PATIENTS WITH PERSISTENT URATE LOWERING RESPONSES TO PEGLOTICASE

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Background: Pegloticase is a recombinant mammalian uricase conjugated to polyethylene glycol approved for treatment of chronic refractory gout. It profoundly decreases serum urate levels and also causes rapid resolution of tophi. However, there is considerable heterogeneity in the velocity of tophus resolution.
Objectives: To assess factors that may influence the velocity of tophus resolution in subjects with persistent lowering of serum urate levels.
Methods: This analysis used results from two randomised controlled trials (RCT) of 6 months duration.[1,2] Tophus assessment was carried out using Computer-Assisted Photographic Evaluation in Rheumatology (CAPER) methodology.[3] Photographs of hands and feet and two other area of visually apparent tophi were taken and assessed for total tophus area and also resolution of tophi in response to therapy. Subjects were defined as responders based upon maintenance of serum urate <6 mg/dL during intensive monitoring periods after 3 and 6 months of treatment. Subject factors evaluated for a relationship with velocity of tophus resolution included age, body mass index, gender, race, and tophus location. Additionally, results for pegloticase responders were subdivided into tertiles on the basis of baseline tophus burden; low (total baseline tophus area <668 mm^2), medium (baseline tophus burden 688–1690 mm^2), and high (baseline tophus burden >1690 mm^2), and the velocity of tophus resolution was determined for each of these groups.
Results: The mean measured total tophus area at baseline was 585.8 mm^2 for biochemical responders and complete resolution of all tophi photographed was achieved by 34.8% of this group during the RCT. The velocity of tophus resolution for the pegloticase responders was 60.1 mm^2 per month. Clinical features including, age, body mass index, gender, race, and tophus location did not significantly influence the velocity of tophus resolution. The mean (standard deviation [SD]) baseline tophus areas at baseline were 419.4 mm^2 (202.4) for subjects with low baseline tophus burden, 1176.9 mm^2 (238.7) for those with moderate tophus burden, and 4260.4 mm^2 (2784.9) for those with high baseline tophus burden. The mean (SD) velocity of tophus resolution was 28.7 mm^2/month (13.6) for patients with low baseline tophus burden, 60.2 mm^2/month (53.5) for those with moderate baseline tophus burden, and 89.5 mm^2/month (38.7) for those with high baseline tophus burden. Even though the velocity of resolution was greater for those with a larger tophus burden, the time required for complete tophus resolution was substantially less for those with a smaller tophus burden. The projected times to resolution of all visualised tophi determined by linear regression analysis were 6.98, 7.14 and 12.02 months for the subjects with low, medium and high baseline tophus burden ($p<0.0001$, $p<0.0001$, $p=0.048$), respectively.
Conclusions: Pegloticase treatment causes a rapid resolution of tophi in biochemical responders and the rate of decrease is not significantly associated with age, body mass index, gender, race, or tophus location. However, the rate of tophus resolution is inversely correlated with the total tophus burden at the beginning of treatment.

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Disclosure of Interest: B. Mandell Grant/research support from: Horizon Pharma, Consultant for: Horizon Pharma, Ironwood, A. Yeo Consultant for: Horizon Pharma, P. Lipsky Consultant for: Horizon Pharma
DOI: 10.1136/annrheumdis-2018-eular.5799