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PsA: a fascinating disease

OP0106 THE IMPACT OF COMORBIDITIES ON EFFECT AND DISCONTINUATION OF TUMOUR NECROSIS FACTOR INHIBITOR THERAPY IN PSORIATIC ARTHRITIS: A POPULATION-BASED COHORT STUDY

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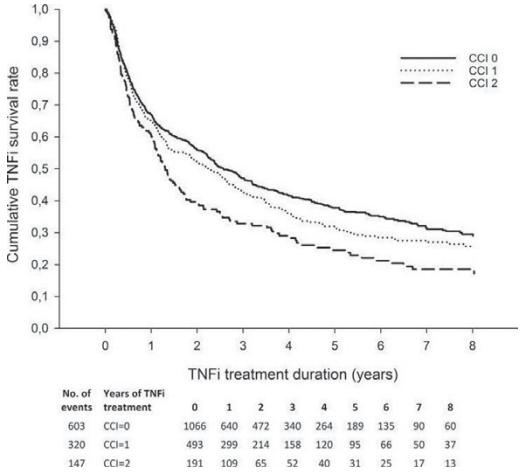
Background: Psoriatic arthritis (PsA) is a chronic inflammatory disorder associated with several severe comorbidities such as cardiovascular diseases, diabetes, and depression. Tumour necrosis factor inhibitor (TNFi) therapy fails among half of patients with PsA treated in routine care.
Objectives: The objective of this population-based cohort study was to investigate if the presence of comorbidities were associated with disease activity, treatment response and adherence to therapy in patients with PsA treated with their first TNFi.
Methods: Data on patient characteristics, disease activity and treatment adherence was obtained from the DANBIO register. Information on comorbidities according to the Charlson Comorbidity Index (CCI) and psychiatric comorbidities was obtained through linkage with the Danish National Patient Register. We performed Kaplan-Meier plots and multivariate Cox proportional hazard regression analyses adjusted for sex, age, disease duration, DAS28-CRP, obesity, smoking, concurrent methotrexate treatment, calendar period, and diagnosis with depression and/or anxiety. Percentages of patients achieving relevant clinical responses were calculated.
Results: We identified 1750 patients eligible for analyses. Patients with higher CCI scores had statistically significantly higher disease activity measures at baseline compared with patients without comorbidities (Table 1). Kaplan–Meier curves showed shorter adherence to treatment for patients with CCI ≥2 compared with patients with lower CCI scores (CCI =0: 2.6 years [2.2 to 2.9], CCI =1: 2.2 years [1.7 to 2.8], CCI ≥2: 1.3 years [1.0 to 1.6], p<0.001) (Figure). Also, for patients with depression and/or anxiety the adherence to treatment was shorter compared with patients without depression and/or anxiety (absence of depression and/or anxiety: 2.4 years [2.1 to 2.6], presence of depression and/or anxiety: 1.7 years [0.26 to 3.0], p<0.027). In the multivariate Cox regression analysis a CCI score ≥2 was associated with increased risk of TNFi treatment discontinuation compared with patients without comorbidities (HR 1.72, [95% CI 1.26 to 2.37], p=0.001). A statistically significantly smaller proportion of patients with a CCI score ≥2 achieved EULAR good response (CCI =0: 41%; CCI ≥2: 23%) and EULAR good-or-moderate response (CCI =0: 54%; CCI ≥2: 47%) at 6 months compared with patients without comorbidities.

Table 1. Baseline characteristics according to Charlson Comorbidity Index (CCI)

	CCI =0 (n=1066)	CCI =1 (n=493)	CCI ≥2 (n=191)	p value
Tender joint count (28) (no.)	6 (2–11)	6 (3–12)	8 (3–15)	0.001
Swollen joint count (28) (no.)	2 (0–5)	3 (0–6)	2 (0–6)	0.016
DAS28-CRP (0 – 10)	4.4 (3.5–5.2)	4.6 (3.8–5.4)	4.9 (3.9–5.7)	<0.001
HAQ score (0 – 3)	0.88 (0.5–1.4)	1.1 (0.6–1.5)	1.4 (0.88–2.0)	<0.001
VAS patient global (0 – 100)	68 (48–84)	69 (52–84)	75 (58–88)	0.021
Depression and/or anxiety, n (%)	46 (4.3)	33 (6.7)	15 (7.9)	0.042

Values are the median/interquartile range except where stated otherwise. Comparisons were assessed by χ^2/Kruskal-Wallis test.



Conclusions: Presence of comorbidities was associated with higher baseline disease activity, increased risk of TNFi treatment discontinuation and reduced clinical response rates in a cohort of Danish patients with PsA.

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OP0107 PAIN STILL REMAINS A HIGH UNMET NEED AMONG PSORIATIC ARTHRITIS PATIENTS RECEIVING EXISTING BIOLOGIC TREATMENT: RESULTS FROM A MULTI NATIONAL REAL-WORLD SURVEY

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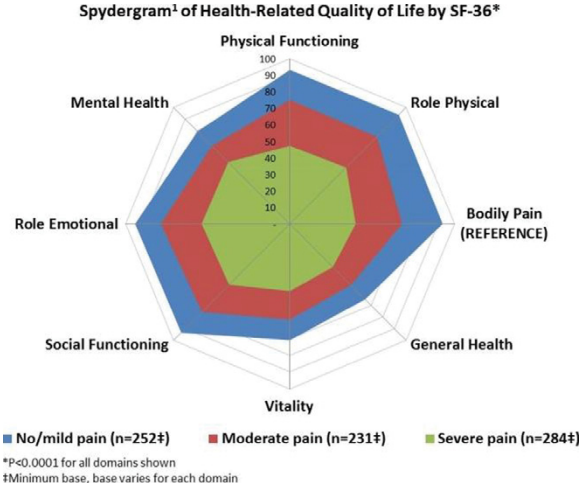
Background: Many patients diagnosed with Psoriatic Arthritis (PsA) experience pain which can persist during treatment and may impair health related quality of life (HRQOL) and the ability to work.
Objectives: To assess self-reported pain in patients with PsA receiving biologic therapy, and evaluate the association of increasing severity of pain with HRQOL and employment status.
Methods: Cross-sectional survey data from Rheumatologists and Dermatologists (specialists) treating PsA and their patients in 13 countries spanning the Americas, Asia Pacific, EU, Turkey and the Middle East were analyzed. A geographically diverse sample of specialists in each country completed a detailed form for consecutive consulting PsA patients recording information such as demographics, clinical state and treatment details. Patients voluntarily completed questionnaires providing demographics, self-reported intake of non-prescription pain medication, work status, HRQoL (EQ-5D, SF-36), impairment in physical function (HAQ-DI), and impairment in work productivity and activity (WPAI). Patient reported pain was stratified using tertiles of the SF-36 "Bodily Pain" (BP) subdomain.
Results: Results are presented from 782 patients with PsA receiving traditional biologic treatment (mainly anti-TNF) for ≥3 months who completed SF-36 questionnaires. SF-36 BP domain tertiles were: no/mild pain: BP: >75 to 100: 33.1%; moderate: BP: >52 to ≤75: 30.1%; and severe: BP: 0 to ≤52: 36.8%. A strong positive linear relationship between BP tertiles and EQ-5D pain was observed (correlation coefficient: 0.6678). More severe pain was associated with increased use of prescription NSAIDS (p=0.0026) and opioids (p=0.0065), as well as non-prescription pain medication (p<0.0001).
The level of HRQOL impairment among PsA patients increased as pain increased: SF-36 domains (excluding BP) were lower, all differences were clinically[1] and statistically significant (all p<0.0001); EQ-5D domains (excluding pain/discomfort) were also lower (p<0.0001). More severe pain was associated with greater disability (higher HAQ-DI scores), and greater activity impairment, overall work impairment, work time missed and impairment while working due to PsA (all p<0.0001). Among patients of working age (≤65), the likelihood of unemployment or retirement due to PsA was higher among patients reporting severe pain: Mild (n=21): 19.0%, Mod (n=30): 10.0%, Severe (n=36): 58.3%; p<0.0001.
Conclusions: This analysis of real world patient reported data suggests that pain is common among PsA patients receiving biologic therapy. Increasing severity of pain is associated with more impaired HRQOL, physical functioning, engagement



in activities and work productivity. These results suggest there is a need for treatments that provide fast and sustained improvement in pain to reduce the impact pain has on patients' daily life as well as societal costs.

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OP0108 INHIBITION OF RADIOGRAPHIC PROGRESSION IN PSORIATIC ARTHRITIS BY ADALIMUMAB INDEPENDENT OF THE CONTROL OF CLINICAL DISEASE ACTIVITY

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Background: Patients (pts) with psoriatic arthritis (PsA) may experience structural damage and irreversible functional impairment if not treated appropriately. Treatment with TNF inhibitors in rheumatoid arthritis (RA) pts showed inhibition of radiographic progression larger than expected based on the control of clinical disease activity.[1] Preliminary results showed that such a disconnect phenomenon may also be observed in PsA pts following treatment with adalimumab (ADA).[2]
Objectives: The objective of this analysis was to further examine the relationship between inhibition of radiographic progression and control of clinical disease activity using different disease activity measures following treatment with originator ADA versus placebo (PBO) in pts with active PsA.
Methods: ADEPT[3] was a 24-week (wk), randomized, double-blind trial comparing the safety and efficacy of ADA with PBO in pts with active PsA. In this post hoc analysis, radiographic progression, defined as change from baseline (BL) to wk 24 in modified total Sharp score (ΔmTSS) >0.5, was calculated in pts with evaluable radiographs at both time points. Pts were classified based on achieving minimal disease activity (MDA) and different subcategories of disease activity (remission, low, moderate, or high) based on time-averaged (TA) DAS28(CRP), DAPSA, and PASDAS. The associations between ΔmTSS and disease activity were assessed by Pearson (r_p) or Phi (r_φ) correlation coefficients.
Results: Of the 296 pts (ADA, N=144; PBO, N=152) included in this analysis, higher proportions of pts receiving ADA compared with PBO achieved MDA and remission/low disease activity status across all the outcome measures.

Table Change from Baseline to Week 24 in modified Total Sharp Score (ΔmTSS) categorized by Disease Activity Status Across Each Outcome Measure in ADA and PBO Treated Patients.

Outcome measure Mean (SD)	ΔmTSS		P-value*
	ADA	PBO	
TA-DAS28 (CRP)†	n = 144	n = 152	
Remission (≤2.6)	-0.3 (1.3)	0.1 (0.7)	.135
Low disease activity (>2.6–3.2)	-0.2 (1.3)	0.6 (1.7)	.054
Moderate disease activity (>3.2–5.1)	0.2 (1.3)	1.5 (3.6)	.085
High disease activity (>5.2)	1.7 (2.9)	4.9 (8.2)	.893
TA-DAPSA†	n = 144	n = 152	
Remission (≤4)	-0.1 (0.5)	0.0 (0.0)	.824
Low disease activity (>4–14)	-0.2 (1.0)	0.0 (0.0)	.741
Moderate disease activity (>14–28)	-0.2 (1.4)	0.4 (1.0)	**.044**
High disease activity (>28)	-0.1 (1.8)	1.4 (3.5)	**.002**
TA-PASDAS†	n = 136	n = 150	
Low disease activity (≤3.2)	-0.1 (0.9)	0.2 (0.4)	.373
Moderate disease activity (>3.2–<5.4)	-0.4 (1.5)	0.4 (1.3)	**.001**
High disease activity (≥5.4)	0.2 (1.9)	2.0 (4.3)	**.039**
MDA‡	n = 139	n = 146	
Yes	-0.2 (1.6)	0.0 (0.0)	.884
No	-0.2 (1.3)	1.1 (3.1)	**<.001**

*P-value for difference between treatment groups is based on ANCOVA.
†Time averaged (TA) variable is calculated as area under the curve (AUC) of that variable and standardized by length of study (24 weeks).
‡Minimal disease activity (MDA) was calculated in patients with at least 5 out of 7 MDA components available.
ADA = adalimumab, PBO = placebo; TA = time-averaged; DAS28(CRP) = 28-joint disease activity score based on C-reactive protein, DAPSA = disease activity index for psoriatic arthritis, PASDAS = psoriatic arthritis disease activity score; index, MDA = minimal disease activity; ANCOVA = analysis of covariance.

There was a significant interaction between treatment and disease activity status with respect to radiographic progression (P<.001 for all outcome measures). In addition, treatment with ADA for 24 wks compared with PBO resulted in significantly lower mean ΔmTSS even in pts with moderate or high disease activity (TA-DAPSA or TA-PASDAS) or not achieving MDA (Table). Radiographic progression showed a weak, but significant correlation with disease activity status in pts treated with PBO ($r_p \geq 0.3$, P<.001 for TA-DAS[CRP], TA-DAPSA, and TA-PASDAS; $r_\varphi = -0.14$ [95% CI:–0.20 to –0.09 for MDA), but not ADA.
Conclusions: The results showed that the relationship between disease activity as determined by various outcome measures differed between ADA and PBO treated pts. ADA provided inhibition of radiographic progression which was somewhat larger and independent of the control of clinical disease activity. This supports the disconnect phenomenon in PsA following ADA treatment.

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OP0109 IS MENTAL HEALTH COMPARABALE IN RHEUMATOID AND PSORIATIC ARTHRITIS PATIENTS? A COMPARATIVE ANALYSIS OF REAL LIFE LONGITUDINAL DATA FROM THE NOR-DMARD STUDY

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Background: Only few studies have compared health related quality of life (HRQoL) between rheumatoid arthritis (RA) and psoriatic arthritis (PsA) patients.
Objectives: To compare the Medical Outcomes Survey Short Form-36 (SF-36) Physical Component Summary (PCS) and Mental Component Summary (MCS) in RA and PsA patients from a large prospective observational registry.
Methods: We included RA and PsA patients from the prospective observational multicenter Norwegian-Disease-Modifying Antirheumatic Drug (NOR-DMARD) study, who started first-time tumour necrosis factor inhibitors or DMARD naïve patients starting methotrexate between year 2000 and 2012. Continuous variables were compared using independent t-test (normally distributed data). Prespecified ANCOVA analyses adjusted for age, gender and years since diagnosis were performed to compare SF-36 PCS and MCS between the RA and PsA patients at baseline and after 3 and 6 months follow-up.
Results: A total of 2735 RA and 1236 PsA patients were included. Mean (SD) age was 55.0 (13.5)/ 48.3 (12.4) years, median (25th-75th percentile) years since diagnosis 0.7 (0.02–6.4)/ 1.3 (0.09–7.7), 69.7/48.4% were women and 31.7/29.8% current smokers. Mean (SD) 28-joint Disease Activity Score was higher in RA vs. PsA patients at baseline (4.9 (1.4)/ 4.2 (1.3)) and at 3 (3.6 (1.5)/ (3.1 (1.4)) and 6 months follow-up (3.3 (1.4)/ 3.0 (1.3)), respectively ($p \leq 0.001$). Unadjusted means (SD) of SF-36 PCS and MCS were similar between the RA and PsA patients (Table 1).
In adjusted analyses SF-36 PCS was slightly higher and SF-36 MCS similar between RA and PsA patients at 3 and 6 months follow-up (Table 2).
Conclusions: Mental HRQoL reflected through SF-36 MCS was similar between RA and PsA patients at all time points, in spite of slightly worse physical HRQoL reflected through lower SF-36 PCS in the PsA group at 3 and 6 months follow-up.
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