Psoriatic arthritis and its management: it's more than just synovitis…

OP0050 ADALIMUMAB INTRODUCTION VERSUS METHOTREXATE DOSE ESCALATION IN PATIENTS WITH INADEQUATELY CONTROLLED PSORIATIC ARTHRITIS: RESULTS FROM RANDOMIZED PHASE 4 CONTROL STUDY

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Background: Methotrexate (MTX) is often used as first-line therapy for patients (pts) with psoriatic arthritis (PsA) despite limited efficacy and data on appropriate dosage. Minimal Disease Activity (MDA) is suggested as an optimal treat-to-target outcome. Biologic disease-modifying antirheumatic drugs (bDMARDs) have demonstrated improved outcomes (including MDA rates) over MTX. However, more data are needed to define the optimal timing of bDMARD initiation and characterize efficacy of MTX dose escalation, to achieve optimal outcomes.

Objectives: To compare achievement of MDA between adding adalimumab (ADA) vs escalating MTX dose in PsA pts with inadequate disease control after initial MTX therapy.

Methods: The open-label, 2-part CONTROL study enrolled bDMARD-naive adult pts with active PsA (not in MDA at screening and ≥3 tender and ≥3 swollen joints) despite MTX 15 mg every wk (ew) for ≥4 wks. Pts were randomized to ADA 40 mg every other wk + MTX 15 mg (ADA+MTX) or escalated MTX to 20–25 mg ew or highest tolerable dose during 16-wk part 1 (Fig 1). The primary endpoint was achievement of MDA, defined as fulfilling ≥5 of the 7 criteria: tender joint count 68 (TJC68) ≤1, swollen joint count 66 (SJC66) ≤1, Psoriasis Area Severity Index (PASI) ≤1 or body surface area (BSA) ≤3%, pt's pain (visual analogue scale [VAS] 0–100) ≤15, Pt's Global Assessment of disease activity (PtGA) VAS ≤20, Health Assessment Questionnaire Disability Index (HAQ-DI) ≤0.5 and tender entheseal points (0–8) ≤1. Key secondary efficacy endpoints were achievement of ACR20 and PASI75 and change from baseline in HAQ-DI and Leeds Enthesitis Index (LEI) at wk 16.

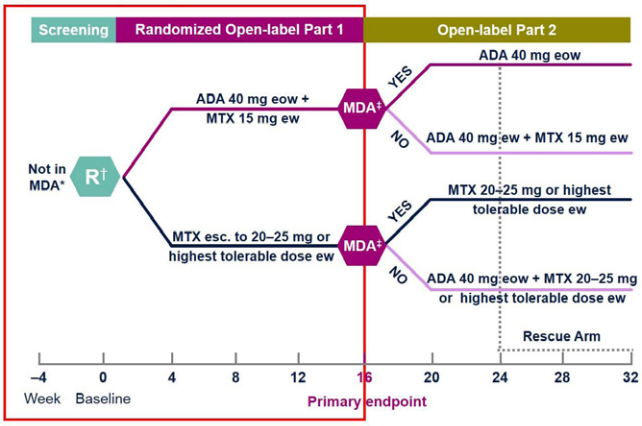
Results: Overall, 246 pts were randomized; 245 received treatment (ADA+MTX, n=123; escalated MTX, n=122); 117 (95%) pts and 110 (90%) pts, respectively, completed part 1. Baseline characteristics were similar between groups (**Table**). During part 1, the average dose of MTX was 21.8 mg/wk (55% on oral MTX) in the escalated MTX group. Significantly higher proportion of pts in ADA+MTX (42%) vs escalated MTX (13%) group achieved MDA at wk 16 (non-responder imputation [NRI]; difference [95% CI] 28% [18%–39%]; $P<0.001$; **Fig 2**). Observed case analysis confirmed the NRI analysis. Lower MDA rates at wk 16 were observed in the escalated MTX arm regardless of prior MTX duration (**Fig 2**). Significant improvements in key secondary endpoints were also observed with ADA+MTX vs escalated MTX (all $P<0.05$; **Fig 2**). In part 1, the proportion of patients with adverse events was similar between groups (ADA+MTX, 62% vs escalated MTX, 57%); no opportunistic infections, tuberculosis, malignancies, or deaths were reported during part 1.

Conclusion: A significantly higher proportion of pts achieved MDA at wk 16 after introducing ADA compared with escalating MTX dose; higher rates were observed regardless of prior MTX duration. Significantly higher responses in musculoskeletal, skin, and quality of life measures were observed with ADA+MTX vs escalated MTX. No new safety signals with ADA were identified in this pt population.

Table 1. Baseline Demographics

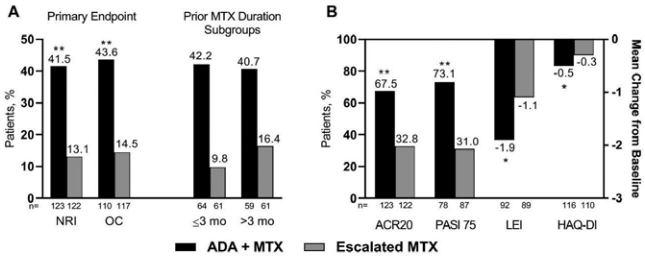
Characteristics, mean (SD)	ADA+MTX n=123	Escalated MTX n=122
Female, n (%)	64 (52.0)	59 (48.4)
Age, y	51.4 (12.2)	48.8 (12.7)
BSA >3%, n (%)	74 (60.2)	78 (63.9)
Pt pain	63.7 (19.5)	62.3 (20.9)
PtGA	65.0 (19.9)	62.9 (20.9)
HAQ-DI	1.2 (0.6)	1.2 (0.7)
LEI + plantar count	3.5 (2.1)	3.5 (2.1)

Figure 1. Study Design



*Active PsA patients (not in MDA) after MTX treatment for at least 4 weeks.
†Patients stratified by duration of prior MTX (MTX 15 mg/week for ≤3 months or >3 months).
‡Patients were assigned to treatment arms based on their MDA status.

Figure 2. MDA (A) and Secondary (B) Endpoints at Week 16



ACR, American College of Rheumatology; ADA, adalimumab; HAQ-DI, Health Assessment Questionnaire Disability; LEI, Leeds Enthesitis Index; MTX, methotrexate; NRI, nonresponder imputation; OC, Observed case; PASI, Psoriasis Area Severity Index.
Subgroup analysis stratified by prior MTX duration ≤3 months vs >3 months.
*$P<0.01$; **$P<0.001$.

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OP0051 STRUCTURAL ENTHESEAL LESIONS IN PSORIASIS PATIENTS ARE ASSOCIATED WITH AN INCREASED RISK OF PROGRESSION TO PSORIATIC ARTHRITIS - A PROSPECTIVE COHORT STUDY

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Background: We have previously reported that the presence of musculoskeletal pain in psoriasis patients is associated with a higher risk of developing psoriatic arthritis (PsA) (1). Furthermore, a subset of psoriasis patients shows evidence for structural entheseal lesions (SEL) in their hand joints (2), sometimes also referred as "Deep Koebner Phenomenon", which are highly specific for psoriatic disease and virtually absent in healthy controls, rheumatoid arthritis and hand osteoarthritis patients (2-4). However, it remains unclear whether SEL alone or in combination with musculoskeletal pain are associated with the development of PsA.

Objectives: To test whether the presence of SEL in psoriasis patients increases the risk for progression to PsA and how this is related to the presence of musculoskeletal pain.

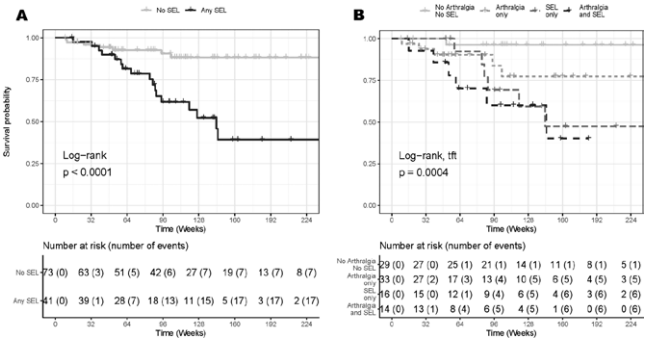
Methods: Psoriasis patients without evidence of PsA were enrolled in a prospective cohort study between 2011 and 2018. All patients underwent baseline assessment of SEL in their 2nd and 3rd MCP joints by high-resolution peripheral quantitative computed tomography (HR-pQCT). The risk of PsA development associated with SEL and arthralgia was explored using survival analyses and multivariable Cox regression models.

Results: 114 psoriasis patients (72 men/42 women) with a mean (SD) follow-up duration of 28.2 (17.7) months were included, 24 of whom developed PsA (9.7 /100 patient-years, 95%CI 6.2 to 14.5) during the observation period. Patients with SEL (N=41) were at higher risk of developing PsA compared to patients without such lesions (21.4/100 patient-years, 95%CI 12.5 to 34.3, HR 5.10, 95%CI 1.53 to 16.99, p=0.008) (Kaplan Meier plot A). Furthermore, while patients without arthralgia and without SEL had a very low progression rate to PsA (1/29; 3.4%), patients with arthralgia but no SEL showed higher progression (5/33; 15.2%), which was in line with previous observations (1) (Kaplan Meier plot B). Presence of SEL further enhanced the risk for progression to PsA both in the absence (6/16; 37.5%) and presence (6/14; 42.8%) of arthralgia with the highest progression rate in those subjects with both arthralgia and SEL (p<0.001 by log rank test for trend) (Kaplan Meier plot B).

Conclusion: Presence of SEL is associated with an increased risk of developing PsA in patients with psoriasis. If used together with pain, SEL allow defining subsets of psoriasis patients with very low and very high risk to develop PsA.

References:

[1] Faustini F et al. Ann Rheum Dis. 2016;75:2068-2074
[2] Simon D et al. Ann Rheum Dis. 2016;75:660-6
[3] Finzel S et al. Ann Rheum Dis. 2011;70:122-7
[4] Finzel S et al. Arthritis Rheum. 2011;63:1231-6



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OP0052

COMPARISON OF PATIENTS WITH PSORIATIC ARTHRITIS (PSA) AND INVESTIGATOR-DEFINED AXIAL PSA TO PATIENTS WITH PSA AND ELEVATED PATIENT-REPORTED SPINE PAIN: FINDINGS FROM THE CORRONA PSORIATIC ARTHRITIS/ SPONDYLOARTHRITIS (PSA/SPA) REGISTRY

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Background: Efforts are underway by GRAPPA and ASAS to define axial disease in psoriatic arthritis (axPsA).[1] AxPsA is typically diagnosed based on clinical evaluation and judgement, imaging, and patient-defined axial symptoms. In the MAXIMISE trial, part of the inclusion criteria for axPsA required patients to have a BASDAI ≥ 4 and patient-reported spine pain ≥ 40 in addition to clinician judgement.[2]

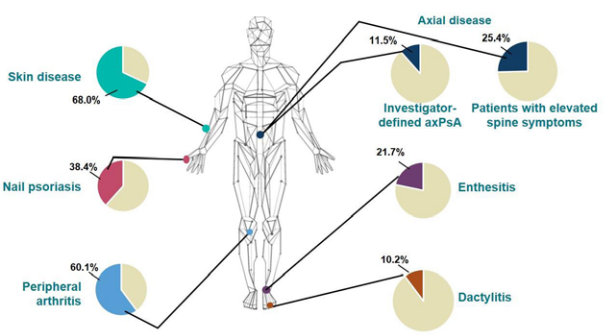
Objectives: To compare characteristics of patients with PsA and investigator-identified axPsA to patients with PsA with BASDAI ≥ 4 and patient-reported spine pain ≥ 40.

Methods: Adult patients with PsA enrolled in the registry from March 2013–December 2019 were included. Investigators identified the subset of patients with axPsA based on clinical assessments, imaging, and laboratory workup. All patients completed a BASDAI questionnaire and spine pain VAS. Patients with investigator-identified axPsA were compared with those who had BASDAI ≥ 4 and spine pain VAS ≥ 40 (elevated spine symptoms; non-mutually exclusive groups). Presence of other manifestations at enrollment was also evaluated: enthesitis (SPARCC enthesitis count > 0), dactylitis (dactylitis count > 0), peripheral arthritis (PA; tender and/or swollen joint count > 0), nail psoriasis (VAS > 0), skin psoriasis (affected body surface area > 0%). The prevalence of investigator-defined axPsA and elevated spine symptoms, alone and with other manifestations, was summarized for all patients and those who initiated biologics at enrollment using frequency counts and percentages.

Results: Of 3393 patients with PsA, 391 (11.5%) had investigator-defined axPsA and 863 (25.4%) had elevated spine symptoms (Figure 1**A**); 127 (3.7%) patients met both criteria. In the total population with PsA, 2982 patients had ≥ 1 PsA manifestation when axPsA was investigator defined, of whom 2235 (74.9%) had multiple manifestations. Among those with ≥ 1 manifestation, the most common presentations were PA + skin (14.6%), skin (13.1%), and PA + nail + skin (11.3%). When using the criteria for elevated spine symptoms, 2996 patients had ≥ 1 PsA manifestation, of whom 2299 (76.7%) had multiple manifestations. Among those with ≥ 1 manifestation, the most common presentations were skin (12.3%), PA + skin (11.2%), and PA + nail + skin (8.8%). Of 769 patients who initiated a biologic at enrollment, 109 (14.2%) had investigator-defined axPsA and 270 (35.1%) had elevated spine symptoms (Figure 2**A**). Among all biologic initiators with PsA, 733

Figure 1. Prevalence of (**A**) PsA Disease Manifestations and (**B**) Other Manifestations With Axial Disease in the Overall Population

A



B

Manifestation, n (%)	Axial Disease Definition	
	Investigator-Defined AxPsA (n = 391)	Patients With Elevated Spine Symptoms (n = 863)
Enthesitis	154 (39.4)	311 (36.0)
Dactylitis	39 (10.0)	112 (13.0)
Peripheral arthritis	268 (68.5)	673 (78.0)
Nail	195 (49.9)	392 (45.4)
Skin	273 (69.8)	651 (75.4)

The heat map represents the frequency of any 2 domain combinations by the range of blue shades, with the darkest blue color specifying the highest frequency and the lightest blue specifying the lowest frequency of combinations.