Conclusion: Reflecting the complexity of PsA, different degrees of improvement were observed across all treat-to-target outcomes with greater improvements in patients that met ACR50 response regardless of skin resolution. These findings at week 24 need to be confirmed with a longer duration of treatment.

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PSORIATIC ARTHRITIS PATIENTS ACHIEVING DAPSA REMISSION/LOW DISEASE ACTIVITY HAVE BETTER LONG-TERM FUNCTIONAL OUTCOMES

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Background: Patients with psoriatic arthritis (PsA) experience substantial functional impairment, which impacts on health-related quality of life. Evidence from randomized clinical trials (RCTs) suggests better patient-reported functional outcomes when lower disease activity is achieved.3,4

Objectives: To evaluate the impact of achieving DAPSA remission (REM) or low disease activity (LDA) on long term function measured by HAQ-DI. To verify predictors of achieving a minimum clinically important difference (MCID) in HAQ-DI (< -0.35).

Methods: This is a longitudinal analysis of a real-life retrospective cohort. Inclusion criteria were adult patients fulfilling CASPAR criteria for PsA with at least 4 years of follow-up in the PsA Clinic. Demographic and clinical data were extracted from electronic medical records. Comparison of HAQ-DI variation between patients with DAPSA REM/LDA and those with moderate/high disease activity was performed using generalized estimating equation (GEE), adjusted by Bonferroni test. Correlation between HAQ-DI and DAPSA was analyzed by Spearman correlation method. A multivariate hierarchical regression model was applied in order to evaluate predictors of achieving a MCID in HAQ-DI scores.

Results: Seventy-three patients were included in the analysis, of which 58.9% were females, with a median (25/75th) of 8 (3-15) years since PsA diagnosis and a mean follow up time of 6.2±2.1 years. In total, 37% of patients (N=27) presented a MCID in HAQ-DI during the follow-up. Function measured by HAQ-DI was determined by PsA disease activity measured by DAPSA (interaction test: p < 0.0001) (Figure 1). A moderate and statistically significant correlation between ΔDAPSA and ΔHAQ-DI was observed (r = 0.60; p < 0.001) (Figure 2), demonstrating that a decrease in PsA disease activity was associated to improvement in function.

Only patients in DAPSA REM demonstrated a constant declining in HAQ-DI scores during the 6 years of follow-up (Figure 1). While ethnicity and older age at baseline were predictors for not achieving MCID in HAQ-DI (RR 0.33 95% CI 0.16-0.67, p<0.002 and RR 0.96 95% CI 0.93-0.98, p<0.0001, respectively), while higher scores of HAQ-DI at baseline were predictors of achieving a MCID (RR 1.71 95% CI 1.12-2.60, p=0.013).
Conclusion: In PsA, patients who maintained DAPSA REM/LDA over time had better long term functional outcomes. Higher HAQ-DI scores at baseline, non-white ethnicity and younger age were predictors for achieving a clinical significant improvement in HAQ-DI.

References:

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Background: The pathogenesis of Psoriatic Arthritis (PsA) involves several pathways simultaneously, including the CD40/CD40L interaction. In vitro evidence suggests that the cleavage of soluble CD40L (sCD40L) may happen as a Phospodiesterase 4- (PDE4) dependent reaction [1-3].

Objectives: Here we investigate whether apremilast, a PDE4 inhibitor, could modify circulating level of soluble CD40L (sCD40L) in PsA patients, and the possible associations of these changes with clinical response.

Methods: Consecutive patients with PsA starting apremilast in routine clinical practice between October 2018 and September 2019 in a single center were longitudinally observed. Sera were collected at baseline and at the 6-month follow up visit. Demographics and clinical characteristics at different observation times were recorded. Samples were ran in a Bio-Plex ProTM plate for sCD40L level. To investigate the association of sCD40L level with DAPSA minor response and DAPSA Low Disease Activity (LDA) and/or Remission (ie DAPSA ≤14) at 6 months of treatment, multivariate logistic regression models with backward selection (p <0.05) were built.

Results: We studied n.27 patients (16/27 women, 59.6%) with PsA with mean age (± SD) of 58.4 ± 10.4 years. A significant reduction of the mean values of DAPSA, LEI and PASI was evidenced at 6 months. Mean serum level of sCD40L decreased from 5364.02 ± 2025.70 to 4412.14 ± 2629.81 pg/ml after 6 months of apremilast treatment (p=0.01, Figure 1). Baseline sCD40L was an independent predictor of DAPSA minor response (OR 1.0006, 95% CI 1.0001-1.0012; AUC 0.76 (95% CI 0.55-0.97)). Moreover baseline DAPSA (OR 0.80, 95% CI 0.65-0.98) and baseline sCD40L (OR 1.001, 95% CI 1.0001-1.0028; AUC 0.85 95% CI 0.69-0.98, Figure 2) were independently associated with DAPSA LDA/Remission.

Conclusion: Apremilast may decrease sCD40L level in PsA patients. Higher baseline serum sCD40L level may predict short-term clinical response to apremilast.

References:

Background: SERUM SCD40L LEVEL CAN PREDICT SHORT-TERM CLINICAL OUTCOMES IN PATIENTS WITH PSORIATIC ARTHRITIS ON TREATMENT WITH APREMILAST.

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Figure 1. Variation in HAQ-DI according to PsA disease activity measured by DAPSA

Figure 2. Correlation between changes in PsA disease activity (ΔDAPSA) and changes in functional indices (ΔHAQ-DI) over three years of follow-up

Figure 3. Baseline serum CD40L level was an independent predictor of DAPSA minor response (OR 1.0006, 95% CI 1.0001-1.0012; AUC 0.76 (95% CI 0.55-0.97)). Moreover baseline DAPSA (OR 0.80, 95% CI 0.65-0.98) and baseline CD40L (OR 1.001, 95% CI 1.0001-1.0028; AUC 0.85 95% CI 0.69-0.98, Figure 2) were independently associated with DAPSA LDA/Remission.