Conclusion: NTK demonstrated rapid improvement in QoL, work productivity and physical function in pts with PsA.

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AB0793 CHANGES IN PSAID-12 SCORES BEFORE AND AFTER BIOLOGICAL TREATMENT IN PATIENTS WITH PSORIATIC ARTHRITIS

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Background: Psoriatic Arthritis Impact of Disease 12-item questionnaire (PsAID-12) is a patient-reported outcome measure (PROM) which allows a more precise assessment of the impact of PsA and helps treatment decisions geared to either disease activity or, for example, physpsychological distress (1,2).

Objectives: Our objective is to evaluate change of PsAID-12 values after three-months biologic drug treatment and to find out its relationship with other quality of life indices and disease activity parameters in PsA patients

Methods: Patients with a diagnosis of PsA according to CASPAR criteria were recruited to the study. The data of the patients before and after three-month treatment were evaluated retrospectively. The number of swollen (0-66) and tender joints (TJ) (0-68), ESR, CRP, Patient Global Assessment(PGA), physician's global assessment (PhGA),DAPSA and BASDAI were used for the assessment of disease activity. Functional status was assessed with BASFI, quality of life with EuroQol, DLQI and HAQ. Enthesitis evaluation was performed with MASES. Dermatological assesment was done with BSA and PASI. In addition, PSARC and MDA criteria was used to assess patient's response to treatment. A p-value less than 0.05 was statistically significant.

Results: Fifteen patients who met the study criteria were evaluated. 3 patients were excluded because of irregular drug usage. 9 of the 12 patients were women, the average age was 46,41, and BMI was 32,68. Both acute phase reactants were decreased after treatment, and there was significant decrease at CRP levels but not at ESR. It was also observed that there were significant differences at PGA, PhGA, BASDAI, BASFI, MASES, DAPSA and PsAID-12 scores after treatment. There were no statistically significant differences at number of swollen and tender joints, HAQ,EuroQol, PASI, BSA and DLQI scores. 3 patients achieved MDA and 7 patients achieved PSARC criteria. There were statistically significant correlations between pre-treatment mean scores of PsAID-12 and BASDAI, BASFI, DAPSA, HAQ, EuroQol, PhGA. There were statistically significant correlations between after-treatment mean scores of PsAID-12 and BASDAI, DAPSA, PASI and BSA. The correlations between PSAID-12 change (ΔPsAID-12) with other outcome measure changes were as follows: ΔHAQ (r=0,27, p=0,39), ΔBASDAI (r=0.37, p=0,22), ΔPGA (r =0.28, p=0,36), ΔDLQI (r=0.71, p=0,17), ΔBASFI (r=0.41, p=0,18), ΔESR (r=0,20, p=0,55),and ΔCRP (r=-0.39, p=0,20), ΔDAPSA (r=0,77, p=0,009), Δnumber of TJ (r=0,81, p=0,004), ΔMASES (r=0,57, p=0,08), ΔEuroQol (r=-0,29, p=0,34), ΔPASI (r=0,30, p=0,62). It is also observed that PsAID-12 scores decreased more in PSARC responders rather than non-responders, but this difference was not statistically significant. No cases of major adverse event were reported.

Conclusion: PsAID-12 evaluates effect of both physical and psychosocial aspects of PsA and shows close relationship with other PROMS but it may be inadequate in assessing biological treatment response in PsA.

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AB0794 CLINICAL TRIAL DISCRIMINATION OF PHYSICAL FUNCTION INSTRUMENTS FOR PSORIATIC ARTHRITIS: A SYSTEMATIC REVIEW

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Background: Physical function is a core domain to be measured in randomized controlled trials (RCTs) of psoriatic arthritis (PsA). The discriminative

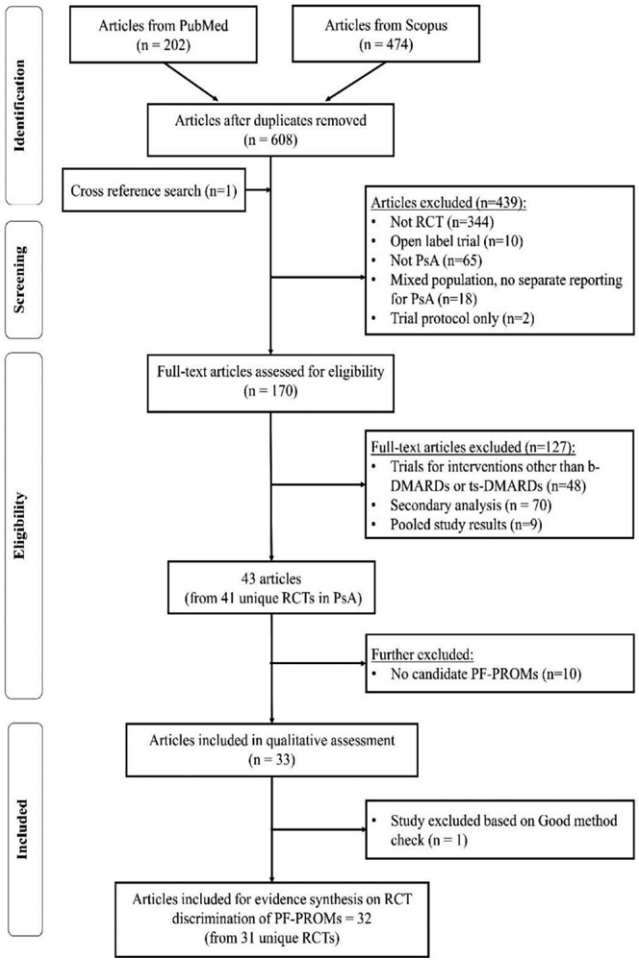

Figure 1. Article selection

performance of patient reported outcome measures (PROMs) for physical function (PF) in RCTs has not been evaluated systematically.

Objectives: In this systematic review, the GRAPPA-OMERACT working group aimed to evaluate the clinical trial discrimination of PF-PROMs in PsA RCTs.

Methods: We searched PubMed and Scopus databases in English to identify all original RCTs conducted in PsA. We limited the review to RCTs of biologic and targeted synthetic DMARDs. Groups of two researchers extracted data independently for PF-PROMs. We assessed quality in each article using the OMERACT good method checklist. Effect sizes (ES) for the PF-PROMs were calculated and appraised using *a priori* hypotheses. Evidence supporting clinical trial discrimination for each PF-PROM was summarized to derive recommendations.

Results: 32 articles were included (Figure 1). Four PF-PROMs had data for evaluation: HAQ-Disability Index (DI), HAQ-Spondyloarthritis (S), Short Form 36-item Health Survey Physical Component Summary (SF-36 PCS), and the Physical Functioning domain (SF-36 PF) (Table 1). The ES for intervention versus (vs.) control arms for HAQ-DI ranged from -0.55 to -1.81 vs. 0.24 to -0.52; and for SF-36 PCS ranged from 0.30 to 1.86 vs. -0.02 to 0.63.

Table 1. Summary of Measurement Properties Table for clinical trial discrimination

Articles	HAQ-DI	HAQ-S	SF-36 PCS	SF-36 PF
Antoni 2005 (IMPACT); Gottlieb 2009 (UST)	+			
Antoni 2005 (IMPACT2)	+		+	
Kavanaugh 2006 (IMPACT2)				+
Mease 2005 (ADEPT); Genovese 2007 (ADA); Mease 2010 (ETN); Kavanaugh 2009 (GO-REVEAL); Kavanaugh 2017 (GO-VIBRANT); Gladman 2014 (RAPID-PsA); Mease 2015 (FUTURE1); McInnes 2015 (FUTURE2); Kavanaugh, 2016 (FUTURE2)-subgroup; Nash 2018 (FUTURE3); Mease 2017 (SPIRIT-P1); Nash 2017 (SPIRIT-P2); Deodhar 2018 (GUS); Mease 2016 (CLZ)	+		+	
Mease 2000 (ETN); McInne, 2013 (PSUMMIT 1); Ritchlin 2014 (PSUMMIT 2); Araugo 2019 (ECLIPSA)	+		+	
Gniadecki 2012 (PRESTA)	+			
Mease 2019 (SEAM-PsA)	+/-		+	
McInnes 2014 (SEC)	+		+	
Mease 2014 (BRO)	+		+	
Mease 2011 (ABT)	+/-		+	
Mease 2017 (ASTRAEA)	+		+	
Mease 2006 (ALC)	+/-			
Mease 2017 (OPAL Broaden); Gladman 2017 (OPAL Beyond)	+			+
Mease 2018 (EQUATOR)	+			+
Mease 2018 (ABT-122)		+		
Total available articles	**31**	**1**	**24**	**4**
Total articles for evidence synthesis	**29**	**1**	**23**	**2**
Overall rating	+		+	+

Color code in each box indicate study quality by OMERACT good methods. GREEN: "likely low risk of bias"; AMBER: "some cautions but can be used as evidence"; RED: "don't use as evidence" WHITE (empty boxes): absence of information from that study. (+): findings had adequate performance of the instrument; (+/-): equivocal performance; (-): poor performance (less than adequate).

Conclusion: Clinical trial discrimination was supported for HAQ-DI and SF-36 PCS in PsA with low risk of bias; and for SF-36 PF with some caution. More studies are required for HAQ-S.

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AB0795

ABNORMAL LEVELS OF PERIPHERAL LYMPHOCYTES SUBSETS IN PATIENTS WITH PSORIATIC ARTHRITIS AND RESTORATION AFTER RECEIVING OUR NEW IMMUNOREGULATORY COMBINATION THERAPIES: A CROSS-SECTIONAL STUDY

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Background: Psoriatic arthritis (PsA) is a chronic autoimmune disease characterized by skin and joint inflammation with lymphocytes disturbance [1,2]. However, the statuses of immune cell subsets are unclear. In addition, although, during the past 20 years, the treatment of the PsA has progressed rapidly, it still remains an unmet need[3].

Objectives: To compare the lymphocyte subsets in peripheral blood of PsA patients and healthy controls and, evaluate effects of immunoregulatory combination therapies, such as low-dose interleukin-2, rapamycin, metformin, and retinoic acid, on the proliferation and functional recovery of lymphocyte subsets in PsA patients.

Methods: From September 2014 to December 2019, 218 PsA patients (107 male and 111 female) and 206 healthy controls (78 male and 128 female) were enrolled, including 112 patients (50 male and 62 female) who received immunoregulatory combination treatments (low-dose interleukin-2, rapamycin, metformin, retinoic acid and coenzyme Q10, ect). The absolute numbers and ratio of T, B, NK, $CD4^+$T, $CD8^+$T, Th1, Th2, Th17 and Tregs in peripheral blood were measured by flow cytometry with absolute counting beads. The data were subject to normal distribution, which was expressed as the mean ± standard deviation. Independent-samples T test and paired-samples T test were applied. P value <0.05 were considered statistically significant.

Results: The absolute numbers of B, $CD4^+$T and Th17 in PsA patients were significantly higher than those of healthy controls (P<0.01), while the absolute numbers of NK and the percentage of Th1 and Tregs were decreased significantly (P<0.01). The ratio of Th17/Tregs was significantly increase (P<0.001) (Figure 1). After receiving our new immunoregulatory combination therapies, the percentage of B, Th2 and Th17 were lower than before (P<0.05) and the absolute numbers of T, $CD8^+$T, NK, Th1 and Tregs in PsA patients were increased (P<0.05). Further, the ratios of Teffs/Tregs had a tendency to decrease (rebalance of them): Th2/Tregs (P<0.01) and Th17/Tregs (P=0.095) (Figure 2).

Conclusion: The abnormal levels of peripheral lymphocyte subpopulations resulted in an imbalance of Teffs/Tregs, which might play an important role in PsA pathogenesis. Our new immunoregulatory combination therapies could promote the proliferation of Tregs and may help for PsA patients' symptom remission.

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