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Table 1. Impact of manifestations on PROs: Adjusted* regression coefficient and p-values

Outcome measure (N patients with data available)	Manifestation	Coef.	P value
EQ-5D Index (N=771)	Enthesitis	-0.12	0.002
	Dactylitis	-0.07	0.010
	IBP	-0.07	0.001
	Sacroiliitis	-0.06	0.259
EQ-5D VAS (N=784)	Enthesitis	-8.86	0.013
	Dactylitis	-4.31	0.123
	IBP	-4.10	0.073
	Sacroiliitis	-10.19	0.043
HAQ DI (N=744)	Enthesitis	0.17	0.096
	Dactylitis	0.17	0.024
	IBP	0.20	0.003
	Sacroiliitis	0.30	0.035
PsAID12 (N=750)	Enthesitis	1.32	0.002
	Dactylitis	1.09	0.003
	IBP	0.47	0.060
	Sacroiliitis	0.59	0.243
WPAI: Productivity (N=485)	Enthesitis	14.40	0.034
	Dactylitis	4.36	0.128
	IBP	4.07	0.185
	Sacroiliitis	-3.86	0.332

*Adjusted for age, gender, number of joints affected, time since diagnosis.

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EFFECT OF BIOLOGICS ON ENTESITIS AND DACTYLITIS IN PATIENTS WITH PSORIATIC ARTHRITIS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: Enthesitis and dactylitis are hallmarks for patients with psoriatic arthritis and mechanical injury are common risk factor for enthesitis and dactylitis [1-4]. Biologic disease modifying anti-rheumatic drugs (bDMARDs), including tumor necrosis factor alpha (TNF- α), interleukin (IL), phosphodiesterase type 4(PDE-4), Janus kinase (JAK) blockers and abatacept have shown efficacy on enthesitis and dactylitis in patients with PsA.

Objectives: The aims of this study are to summarize the efficacy of the bDMARDs on enthesitis and dactylitis in patients with PsA.

Methods: Systematically review of articles published up to Jan 2019 in Medline and Web of Science, and abstracts from the two last European League Against Rheumatism (EULAR) and American College of Rheumatology (ACR) meetings. Primary endpoint was the proportion of patients with resolution of enthesitis or dactylitis from week 12 to 24. Secondary

endpoint was the mean change in different enthesitis score (Leeds Enthesitis Index [LEI, 0-6], Maastricht Ankylosing Spondylitis Enthesitis Score [MASES, 0-13], PsA modified MASES [0-15]) and dactylitis score (Leeds Dactylitis Index [LDI, 0-60], dactylitis severity score [DSS, 0-60], [DSS, 0-20]) from week 12 to 24. Odds ratio (OR) and standardized mean difference (SMD) with 95% CIs across studies were synthesized.

Results: Nineteen studies (8,208 patients), 10 drugs (adalimumab, infliximab, certolizumab pegol, golimumab, secukinumab, ustekinumab, ixekizumab, abatacept, tofacitinib and apremilast) and 22 treatments were evaluated. Patients treated with bDMARDs were more likely to achieve resolution of enthesitis compared with placebo (OR for pooled: 1.99, 95% CI:1.74, 2.27; OR for IL blocker: 2.06, 95%CI:1.78, 2.38; OR for abatacept:1.82, 95%CI:1.05,3.14; OR for PDE4 blocker:1.67, 95%CI:1.14, 2.45) (Figure 1) and have significant improvement in terms of LEI (SMD for pooled: -2.17, 95%CI: -2.87, -1.46; SMD for tofacitinib: -3.83, 95%CI: -5.24, -2.43; SMD for TNF blocker: -1.43, 95%CI: -2.38, -0.48; SMD for ixekizumab: -1.47, 95%CI: -2.42, -0.52; Figure 2A), MASES (SMD for apremilast: -1.50, 95%CI: -2.80, -0.21; Figure 2B), PsA modified MASES (SMD for golimumab: -0.32, 95%CI: -0.52, -0.12; Figure 2C) compared with placebo. Patients treated with bDMARDs were more likely to achieve resolution of dactylitis compared with placebo (OR for pooled: 3.26, 95% CI:2.45, 4.33; OR for IL blocker: 3.88, 95%CI:2.97, 5.06; OR for abatacept:1.54, 95%CI:0.71, 3.34; OR for PDE4 blocker:1.50, 95%CI:0.97, 2.33) (Figure 3) and have significant improvement in terms of LDI (SMD for pool: -1.73, 95%CI: -3.07, -0.40; SMD for TNF blocker: -1.67, 95%CI: -3.72, 0.38; SMD for ixekizumab: -1.67, 95%CI: -3.69, 0.12; Figure 4A), DSS [0-60] (SMD for pool: -2.10, 95%CI: -3.11, -1.10; SMD for tofacitinib: -3.39, 95%CI: -4.95, -1.83; SMD for TNF blocker: -0.84, 95%CI: -1.48, -0.20; Figure 4B), DSS [0-20] (SMD for apremilast: -1.20, 95%CI: -2.07, -0.34; Figure 4C) compared with placebo.

Conclusion: Biologic DMARDs was effective for PsA patients with enthesitis and dactylitis. IL blocker is probably the optimal option to consider when patients present with predominant enthesitis and dactylitis

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Figure 1. Risk estimates of resolution of enthesitis

Figure 2. Standardized mean difference of different enthesitis score

Figure 3. Risk estimates of resolution of dactylitis