

What does worsening in DAPSA disease activity categories mean for patients with psoriatic arthritis? An analysis of 222 patients

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Background

In psoriatic arthritis (PsA), disease activity states are assessed by Disease Activity index for Psoriatic Arthritis (DAPSA) (1,2). However, the worsening in DAPSA states has not been compared to the patient's perspective.

Methods

- ReFlap study (NCT03119805)
- 14 countries; adult patients with PsA.
- Patients were seen twice around 4 months apart (3).

Worsening in definitions

• DAPSA

Transition to a more active category based on remission, low disease activity (LDA), moderate disease activity (MoDA) and high disease activity (HDA). (table 1)

• PATIENT PERCEIVED FLARE

“At this time, are you having a flare of your psoriatic arthritis, if this means the symptoms are worse than usual

• WORSENING MCID QUESTION

“Think about all the ways your psoriatic arthritis has affected you during the last 48 hours. Compared to your last assessment with your rheumatologist, how do you feel during the last 48 hours? *Improved/ no change/ worse*”.

Agreement between definitions

- Frequency
- Cohen's kappa and prevalence adjusted bias adjusted kappa (PABAK)

Table 1: DAPSA components and categories

Components of DAPSA	DAPSA Categories
TJC (0-68)	Remission: ≤ 4
SJC (0-66)	LDA: >4 and ≤ 14
CRP	MoDA: >14 and ≤ 28
Patient activity assessment (0-10)	HDA: >28
Patient pain assessment (0-10)	

Objective

To assess the association between a worsening in disease activity (i.e., change in DAPSA disease activity category) versus the patient's judgement of disease worsening, i.e., patient self-perceived flare and worsening according to the Minimal Clinically Important Difference (MCID) question.

Results

Table 2: Patient's characteristics

	Total 222
Male gender, n (%)	127 (58.8)
Age, years mean (SD)	53.5 (12.3)
PsA disease duration, years, mean (SD)	10.8 (8.3)
Conventional DMARDs intake, n (%)	135 (64.3)
bDMARDs intake, n (%)	133 (63.3)
Tender enthesal points, LEI, mean (SD)	0.4 (1.1)
Tender joint count (0-68), mean (SD)	3.0 (7.5)
Swollen joint count (0-66), mean (SD)	1.6 (6.6)
Current psoriasis lesions, n (%)	139 (64.0%)
DAPSA, mean (SD)	11.5 (14.0)

References:

1. Schoels M, et al. Ann Rheum Dis. 2016
2. Aletaha D, et al. Ann Rheum Dis. 2017
3. Gorlier C, et al. Ann Rheum Dis 2019

Figure 1: Percentage of patients worsening according different definitions between the two visits

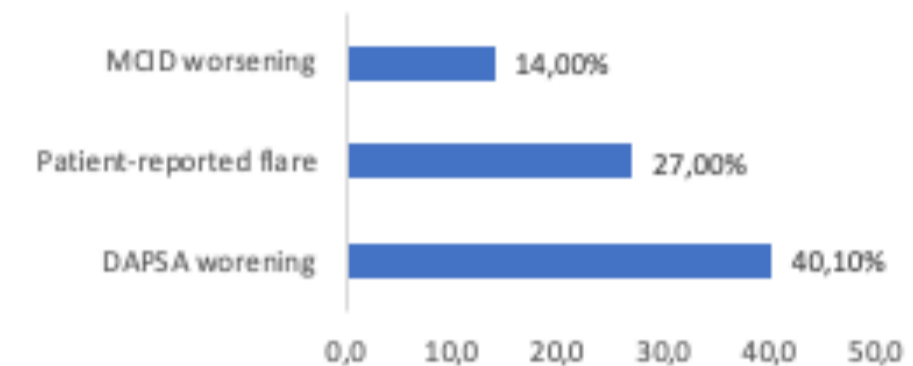


Table 3: Patient versus DAPSA agreement

N patients	Patient self-perceived flare	No patient self-perceived flare	Total 222
DAPSA worsening	41	48	89
No DAPSA worsening	19	114	133
	KAPPA 0.34	PABAK 0.40	Agreement 70%

Table 4: MCID worsening versus DAPSA agreement

N patients	Worsening MCID question	No worsening MCID question	Total 222
DAPSA worsening	20	69	89
No DAPSA worsening	11	122	133
	KAPPA 0.16	PABAK 0.28	Agreement 64%

- Most of the changes corresponded to patients going from remission to LDA (N=24, 27.0% of worsened patients) or from LDA to MDA (N=24, 27.0%).
- For patients who worsened in DAPSA, the mean change in DAPSA was highest in 41 patients self-perceived flare (22.2±15.0) than in 48 patients no self-perceived flare (14.3±12.3).

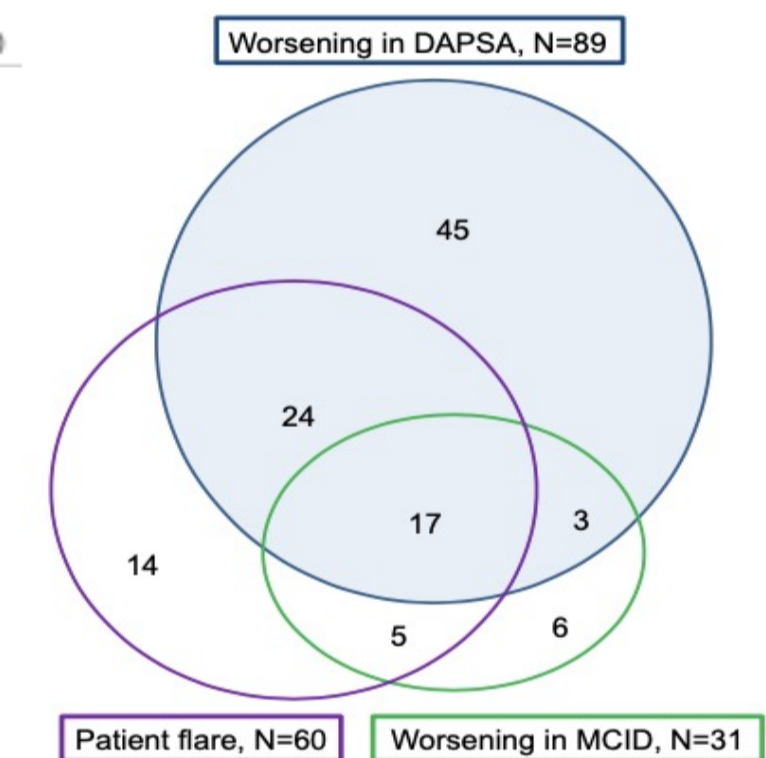


Figure 2 distribution of patients with worsening in DAPSA category, versus patient-defined worsening. Of the 89 patients who worsened according to DAPSA categories, 41 (46.1%) had self-perceived flare and 20 (22.5%) had worsening according to MCID.

Conclusion

- 40.1% patients with PsA had a change in DAPSA category to more active disease.
- Among patients changing DAPSA category, only 46.1% reported themselves in flare at the second visit and only 22.5% reported themselves as worsened by MCID.
- Agreement between assessments were fair (for flares) to low (for MCID worsening).
- It is important to assess both disease activity, and the patient's perspective of flare.