

Defining Low Disease Activity States in Psoriatic Arthritis Using Novel Composite Disease Instruments

To the Editor:

We read with great interest the recent article by Coates and Helliwell on another definition of low disease activity using the novel composite indices to define remission in patients with psoriatic arthritis (PsA)¹.

In 2010, the same authors developed a composite outcome measure as a target of treatment for patients with PsA². Minimal disease activity (MDA) criteria are fulfilled when 5/7 of the following criteria were satisfied: tender joint count ≤ 1 ; swollen joint count ≤ 1 ; Psoriasis Area and Severity Index ≤ 1 or body surface area ≤ 3 ; patient pain visual analog scale (VAS) score ≤ 15 mm; patient global disease activity VAS score of ≤ 20 mm; Health Assessment Questionnaire score ≤ 0.5 ; and tender entheses count ≤ 1 .

MDA criteria encompass most of the disease manifestations (including joint, skin, and entheses); however, it would be possible for a patient to fulfill MDA criteria even if residual disease activity were present in at least 2 important domains such as tender and swollen joints.

In the latest article¹, Coates and Helliwell proposed 2 new indices to define low disease activity/remission: MDA 7/7 criteria were fulfilled when all of the 7 classic MDA domains are satisfied, and MDA-joints, that is, the same as classic MDA 5/7 criteria but with the items for tender and swollen joints as mandatory. In their work the authors explored the equivalent cutoff levels for the Composite Psoriatic Disease Activity Index (CPDAI)³ and the Psoriatic Arthritis Disease Activity Score (PASDAS)⁴ with a well-structured analysis, to provide a more stringent definition of remission using different outcome measures.

However, in this article no information was available on the rate of patients with PsA reaching the MDA 7/7 criteria, that is, a very low disease activity, or the MDA-joints criteria in clinical practice.

In our recent prospective study⁵ we found that about 60% of 75 patients with PsA treated with anti-tumor necrosis factor agents reached the classic MDA (5/7) criteria after 12 months of therapy. The work by Coates and Helliwell prompted us to review our data and we found, as expected, that a

lower rate (37.3%) of our 75 patients reached an MDA 7/7 criteria after 12 months of therapy, with a similar rate (56%) of patients reaching the MDA-joints (Figure 1). Further analyzing our data, we found a very similar rate of patients achieving MDA 7/7 criteria and the Disease Activity Index for Psoriatic Arthritis (DAPSA) remission criteria⁶. We also confirmed an overall moderate to very good concordance between the different MDA criteria and with DAPSA (Table 1). In this context, our data could support the concept of a “deep” low disease activity when MDA 7/7 are reached, describing a condition of clinical remission. However, further studies are needed to define the role of MDA 7/7 or MDA-joints, in particular in relation to radiographic damage progression and the complete control of inflammation in patients with PsA. Indeed, we do believe that MDA 7/7 criteria and possibly DAPSA remission criteria could be used to define a state of very low disease activity because of their easy feasibility in real clinical practice.

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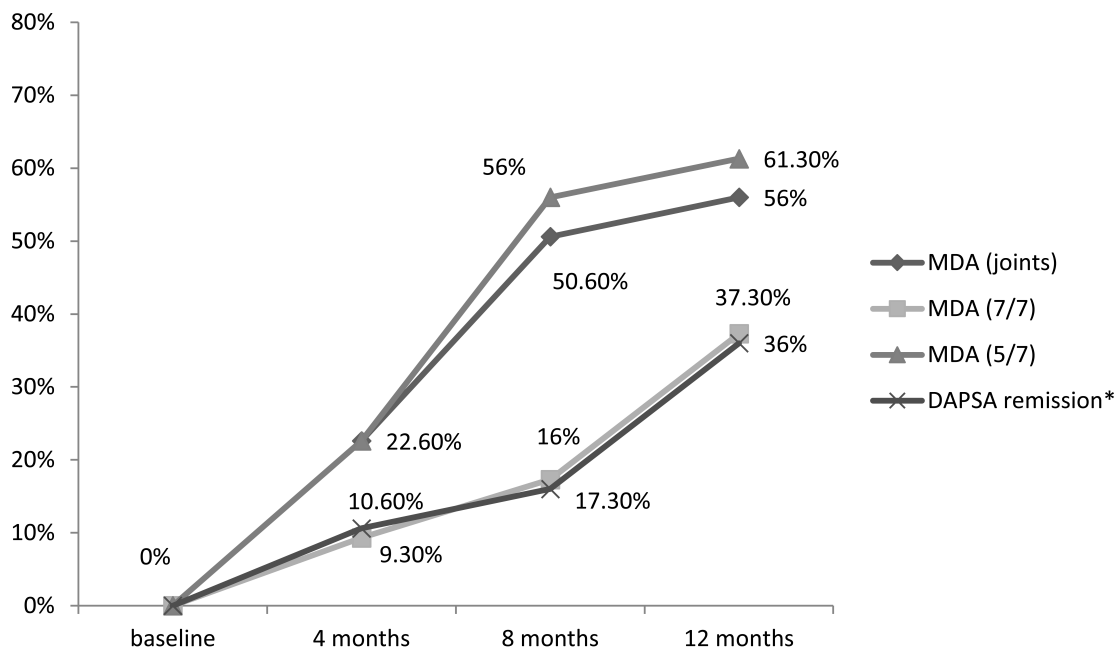


Figure 1. Percentage of patients who achieved classic MDA criteria, DAPSA remission, MDA-joints, and MDA (7/7) in our prospective study (Perrotta FM, et al. *J Rheumatol* 2016;43:350-5). *DAPSA remission is defined by DAPSA score ≤ 3.3 . MDA: minimal disease activity; DAPSA: Disease Activity Index for Psoriatic Arthritis.

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Table 1. Concordance (Cohen's κ) among the different criteria.

	MDA vs MDA (7/7)	MDA vs DAPSA Remission*	MDA vs MDA-joints	MDA 7/7 vs MDA-joints	MDA 7/7 vs DAPSA Remission*	MDA-joints vs DAPSA Remission*
12 mos	0.51	0.43	0.87	0.61	0.61	0.59

*DAPSA remission is defined by DAPSA score ≤ 3.3 . MDA: minimal disease activity; DAPSA: Disease Activity Index for Psoriatic Arthritis.

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