How should we count the toe joints in the 66/68 joint count in psoriatic arthritis: results of an international survey

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Authors contributions

Conceptualization: HMO. Survey design: GDM, HMO, PH. PH analysed the data and wrote the first version of the manuscript. All authors revised and approved the final version of the manuscript.

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No ethical approval was required for this voluntary survey of a professional group

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While conducting a recent randomised clinical trial [1] it became apparent that there is some confusion about which of the toe joints to count in the 66/68 swollen and tender joint count, the 'industry standard' in clinical trials in psoriatic arthritis (PsA). The 76/78 swollen and tender joint count assesses the individual joints of the lesser toes, but the 66/68 joint count may not always do this. Two methods are apparent when counting the toes in the 66/68 joint count. Method A counts only the metatarso-phalangeal (MtPJ) and the proximal interphalangeal (PiPj) joints and ignores the distal interphalangeal DiPj) joint. Method B, proposed in 2004 [2] counts each MtPj but merges the PiPj/DiPj of each digit (as if these separate joints were one). In the 66/68 joint count, with method B, if either the PiPj or the DiPj, or both, are involved then the site is scored positive.

More recently, the OMERACT PsA working group, seeking endorsement of the 66/68 joint count in the core outcome set in 2018, recommended using method A [3]. Harmonization in clinical trials provides several advantages but, as trainers of examination techniques for trials and longitudinal observational studies, it was apparent to us that such uniformity does not exist. We therefore conducted an online survey in April 2024 to determine clinical practice worldwide. The survey was offered to 1300 members of the Group for Research and Assessment of Psoriatic Arthritis (GRAPPA), 90 members of the British Society for Psoriatic Arthritis (BritPACT) and 200 members of the British Society for Spondyloarthritis (BRITSpA).

Out of total 117 responders, 73% reported to be currently active in clinical trial research. 79% of respondents endorsed the use of the 66/68 joint count to assess peripheral joints in PsA. When assessing the joints of the lesser toes the majority (56%) reported that they only count the MtPj and PiPj, ignoring the DiPj (method A). 33% of respondents used method B, counting the PiPj and DiPj as 'one' unit. A small percentage (11%) reported that they only count the PiPj and DiPj. When asked if respondents had ever received training which specified method B, 25% said 'yes'.

At the time of clinical examination, it can be difficult to distinguish individually the PIP and DIP joints in the lesser toes, particularly at the fifth toe where often there is only one joint distal to the MTP joint. Nevertheless, isolated DIP joint inflammation does occur in PsA, though not commonly. Several of the survey respondents expressed confusion and requested further training, such as online video material. We propose that further consensus is needed on whether it would be more appropriate to adopt the 76/78 joint count in order to capture disease extent in all toe joints, or that a further evaluation of how the toe joints are counted in the 66/68 joint count is needed. We believe it is important to remove confusion and standardise joint count evaluation of the toes in the context of clinical trials.

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