

EDITORIAL

Axial psoratic arthritis: are you a lumper or a splitter?

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The concept of spondyloarthritis (SpA) has always triggered conversations about ‘lumping’ and ‘splitting’. Initially this related to the holistic concept of SpA containing different subtypes including axial SpA, psoriatic arthritis (PsA), inflammatory bowel disease-related arthritis and reactive arthritis. In this concept, there are a number of individual conditions that can be identified but that also share features across the SpA spectrum.¹

In recent years, we have seen an increasing interest in the concept of axial PsA. It is clear that a small proportion of patients have isolated axial disease with psoriasis, but a larger proportion present with psoriasis, peripheral arthritis and axial involvement. The problem is that we are still struggling with how to define this condition. Clinical features are non-specific, including inflammatory back pain symptoms and symptoms often start later in life, when they may be confused with other causes of back pain. Defining axial PsA via imaging is also problematic with plain radiographs lacking sensitivity for early

disease and MRI also having some limitations in specificity. Depending on these definitions, 25–70% of people with PsA may have axial involvement.^{2–5}

One of the important initiatives in recent years, is the establishment of the Axial Involvement in PsA (AXIS) study, a collaboration between the Group for Research and Assessment in Psoriatic Arthritis and the Assessment of Spondyloarthritis Society groups. This study is currently recruiting 400 patients with PsA internationally aiming to establish the prevalence of axial disease and develop classification criteria.⁶

It is clear that there are many similarities across the axSpA spectrum and cohorts of patients with ankylosing spondylitis (AS) have always included patients with psoriasis. There are also some differences identified in cohorts that have traditionally been used by clinicians to identify patients with ‘AS plus psoriasis’ and those with ‘axial PsA’. In clinical practice, we typically consider HLA-B27 status, severity of peripheral joint disease and other features when making this differentiation. Many studies have identified other imaging differences including the distribution of axial involvement including spondylitis with sacroiliitis and the type of syndesmophytes.

In learning more about the disease, through research such as the AXIS study, we may be able to learn more about any biological or clinical differences between the subtypes. Currently, the big question for clinicians is whether this distinction matters for treatment. Where the definition of a subtype of disease like axial PsA is unclear, it is difficult to accurately assess efficacy of different treatments. It is also clear that outcome measures in this condition can cause confusion as the key clinical outcome measures are all patient-reported and have been proven not to be specific to axial inflammation, but correlated highly with peripheral disease activity as well.^{7,8} While there has been a dramatic increase in the medications currently licensed

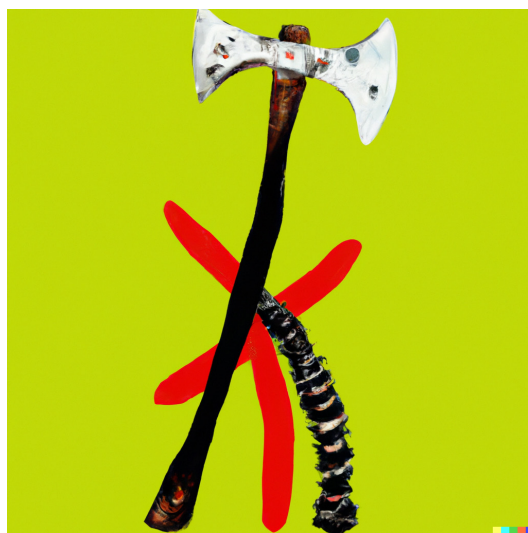


Figure 1 A visualisation from AI program DALL.E - “create a picture of a spine in the style of Joan Miró with an axe”.



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for PsA, fewer have been proven and licensed for use in axSpA. There has also been a suggestion in the literature of potential differential efficacy of some drugs in axial PsA compared with AS but to date there is no convincing evidence.⁹ Again an ongoing study, this time in the form of the STAR study, will evaluate this further looking at the efficacy of interleukin 23 inhibitors in axial PsA with imaging.¹⁰ These differences in drug evidence and availability may also influence ‘lumpers’ and ‘splitters’.

So, it seems again, that it is time for us to consider whether we are ‘lumpers’ or ‘splitters’ while recognising that, like most things in medicine, the tricky aspects are in the grey areas in between. To illustrate this issue, we have asked the AI program DALL.E (<https://openai.com/product/dall-e-2>) or visualization (“create a picture of a spine in the style of Joan Miró with an ax”) (figure 1). This issue of the journal includes two interesting papers and related editorials further exploring this concept.

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REFERENCES

- 1 Proft F, Poddubnyy D. Ankylosing spondylitis and axial spondyloarthritis: recent insights and impact of new classification criteria. *Ther Adv Musculoskelet Dis* 2018;10:129–39.
- 2 Gladman DD, Shuckett R, Russell ML, et al. Psoriatic arthritis (PSA) -- an analysis of 220 patients. *Q J Med* 1987;62:127–41.
- 3 Chandran V. Psoriatic spondylitis or ankylosing spondylitis with psoriasis: same or different? *Curr Opin Rheumatol* 2019;31:329–34.
- 4 Jadon DR, Sengupta R, Nightingale A, et al. Axial disease in psoriatic arthritis study: defining the clinical and radiographic phenotype of psoriatic spondyloarthritis. *Ann Rheum Dis* 2017;76:701–7.
- 5 Feld J, Chandran V, Haroon N, et al. Axial disease in psoriatic arthritis and ankylosing spondylitis: a critical comparison. *Nat Rev Rheumatol* 2018;14:363–71.
- 6 Poddubnyy D, Baraliakos X, Van den Bosch F, et al. Axial involvement in psoriatic arthritis cohort (axis): the protocol of a joint project of the assessment of spondyloarthritis International Society (ASAS) and the group for research and assessment of psoriasis and psoriatic arthritis (grappa). *Ther Adv Musculoskelet Dis* 2021;13:1759720X211057975.
- 7 Taylor WJ, Harrison AA. Could the Bath ankylosing spondylitis disease activity index (BASDAI) be a valid measure of disease activity in patients with psoriatic arthritis? *Arthritis Rheum* 2004;51:311–5.
- 8 Fernández-Sueiro JL, Willis A, Pértiga-Díaz S, et al. Validity of the Bath ankylosing spondylitis disease activity index for the evaluation of disease activity in axial psoriatic arthritis. *Arthritis Care Res (Hoboken)* 2010;62:78–85.
- 9 Mease PJ, Helliwell PS, Gladman DD, et al. Efficacy of guselkumab on axial involvement in patients with active psoriatic arthritis and sacroiliitis: a post-hoc analysis of the phase 3 DISCOVER-1 and DISCOVER-2 studies. *The Lancet Rheumatology* 2021;3:e715–23.
- 10 Gladman DD, Mease PJ, Bird P, et al. Efficacy and safety of guselkumab in biologic-naïve patients with active axial psoriatic arthritis: study protocol for StAR, a phase 4, randomized, double-blinded, placebo-controlled trial. *Trials* 2022;23:743.