

Commentary

Commentary to: Neuropathic Pain Component in Patients with Ankylosing Spondylitis and the Relationship of Neuropathic Pain and Disease Activity Parameters: A Cross-Sectional Study

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To the Editor:

We have carefully reviewed the study by Atik et al. (2024)¹ published in the Journal of Musculoskeletal and Neuronal Interactions. The study provides a contemporary approach to the assessment of neuropathic pain in patients with ankylosing spondylitis (AS) and aims to make a significant contribution to the literature by incorporating electrophysiological evaluation.

However, the reported 22.5% prevalence of polyneuropathy appears considerably higher compared to previous studies involving similar patient populations, which warrants a re-examination of certain methodological aspects. The majority of patients in the

study cohort (85%) were receiving biological therapy, and their mean BASDAI score was as high as 5.43. This suggests that the sample primarily represented an active, likely long-standing, and treatment-resistant group. Nonetheless, it remains unclear to what extent this patient selection reflects the general AS population¹⁻³. Interpretations made without accounting for variables such as disease duration, number of previous flares, and the potential effects of immunosuppressive agents on nerve conduction may limit the generalizability of the findings.

The study reported peripheral entrapment neuropathies such as carpal tunnel and cubital tunnel syndromes

based on nerve conduction studies. However, it is not specified whether these findings corresponded with clinical neurological examination, whether they were symptomatic (e.g., paresthesia, muscle weakness, reflex changes), or whether they were unilateral or bilateral. The absence of this information raises the impression that diagnoses were based solely on electrophysiological findings, thereby including neuropathies of uncertain clinical significance in the overall neuropathy rate.

Similarly, in the 2010 study by Gunduz et al.⁴, nerve conduction studies were also performed in AS patients; however, focal conduction abnormalities were reported instead of polyneuropathy. The authors interpreted these results as subclinical findings with limited clinical relevance. In contrast, Atik et al.'s study¹ did not make such a distinction, as every EMG positivity was classified as "neuropathy." This approach complicates the differentiation of neuropathies with true clinical significance.

Furthermore, Kim and colleagues⁵ employed PainDETECT and considered only scores ≥ 19 as "definite neuropathic pain," thereby prioritizing specificity and clinically meaningful neuropathies. In contrast, Atik et al.¹ used a threshold of ≥ 13 and additionally included all EMG-positive findings, which likely contributed to the higher overall neuropathy prevalence. These methodological differences may render direct comparison of the present study with earlier research statistically misleading.

Reporting electrophysiological findings alongside clinical examination results and patient-reported symptoms would have strengthened the study.

Such integration would enable the distinction between merely electrophysiological and clinically relevant neuropathies, rather than presenting neuropathy rates solely on a binary "present/absent" basis. Furthermore, we suggest that future studies investigate the impact of

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chronic inflammation on nerve damage in conjunction with biomarkers (e.g., TNF- α , IL-6).

In conclusion, the work by Atik et al.¹ provides a valuable contribution. However, we believe that the reported high prevalence of polyneuropathy may have been influenced by factors such as patient selection, the broad definition of neuropathy, and the inclusion of clinically silent EMG findings. Careful consideration of these methodological differences will help achieve a more accurate estimation of the true burden of neuropathic pain in patients with AS.

Authors' contributions

Conceptualization: Belgin Erhan; Methodology, Investigation: Belgin Erhan, Menekşe Başal; Writing – Original Draft: Ekim Can Öztürk, Menekşe Başal; Writing – Review & Editing: Belgin Erhan, Ekim Can Öztürk; Supervision: Belgin Erhan. All authors read and approved the final version of the manuscript.

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