

ATTRwt can Present with Neuropathy and Myopathy and Explain Weakness, Sensory Disturbances, and Popeye's Sign

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LETTER TO THE EDITOR

The article by [Shibahara, *et al.*, 2023] is excellent but has limitations.

The main limitation of the study is that neuropathy and myopathy were not considered and excluded as manifestations of ATTRwt. In particular, neuropathy has been repeatedly reported as a manifestation of ATTRwt more frequently than myopathy [Wajnsztajn Yungher, F. *et al.*, 2023; Ungericht, M. *et al.*, 2023]. Since distal weakness in the upper limbs and sensory disturbances in the distal upper and lower limbs may not be due solely to cervical and lumbar VST, it is mandatory, to also examine the index patient by means of nerve conduction studies and electromyography. An argument against lumbar VST as a cause of lower limb sensory disturbances is that laminectomy one year prior to presentation did not appear to result in resolution of sensory deficits. More likely than VST, sensory disturbances were due to ATTRwt-associated polyneuropathy. Arguments for ATTRwt polyneuropathy are that it has been previously reported as a manifestation of ATTRwt [Wajnsztajn Yungher, F. *et al.*, 2020], that sensory disturbances were not resolved by laminectomy, and that distal weakness and numbness also occurred in the upper limbs. A positive Tinel sign and Phalen test are not limited to carpal tunnel syndrome (CTS). Because the numbness apparently affected all five fingers, and was glove-like in distribution, polyneuropathy is more likely than CTS. In addition, figure-1 clearly shows that wasting affected not only the thenar but also the hypothenar, suggesting that not only the median but also the ulnar nerve was affected.

A second limitation is that the cause of distal biceps tendon rupture was not elucidated. We should know whether the striated muscle was also clinically or subclinically affected by ATTRwt, whether muscle symptoms other than the Popeye's sign were present, and whether creatine-kinase was

elevated. We also should know what kind of occupations and hobbies the index patient pursued.

A third limitation is that family history was not given [Shibahara, *et al.*, 2023]. We should know whether family members other than the index patient were clinically or sub-clinically affected by ATTRwt.

A fourth limitation is that no long-term follow-up and outcomes were reported. We should know if tafamidis had a beneficial effect in the long term, especially if sensory disturbances and weakness completely disappeared. Tafamidis is known to be effective only when given early in the disease [Di Lisi, D. *et al.*, 2023].

Overall, ATTRwt-related neuropathy and myopathy must be thoroughly ruled out before muscle weakness and sensory disturbances in a patient with ATTRwt can be attributed to VST.

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Ethical compliance statement: The authors confirm that the approval of an institutional review board or patient consent was not required for this work. We confirm that we have read the Journal's position on issues involved in ethical publication and affirm that this work is consistent with those guidelines. This article is based on previously conducted studies and does not contain any new studies with human participants or animals performed by any of the authors.

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