LETTERS TO THE EDITOR

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Re: Nerve conduction studies (NCS) and current perception thresholds (CPT) in workers assessed for hand–arm vibration syndrome (HAVS)

Dear Sir,

The paper on nerve conduction studies (NCS) and current perception thresholds (CPT) in workers assessed for hand–arm vibration syndrome (HAVS) by Lander et al. [1] while informative contained several oversights about the CPT neurophysiological test that would bias any reader’s interpretation of the findings. The standardized automated double-blind CPT evaluation provides a painless objective neuroselective measure of sensory function with a resolution of ±20 μAmps at a P < 0.006. Reliable measures may be obtained from individuals receiving potent narcotics [2]. The CPT evaluation measures the functional integrity of unmyelinated and both large and small myelinated sensory nerve fibres that comprise >95% of the typical sensory nerve [3]. The sensory nerve conduction velocity study (NCS) used for comparison to CPT in this study tests only the large myelinated fibres that comprise <10% of the typical sensory nerve fibres and requires a segment of a large peripheral nerve. Previous CPT studies with HAVS and vibration neuropathy in rats show 100% specificity in the pathology involving myelinated fibres with sparing of the unmyelinated fibres [4–6]. Unfortunately, the authors of the present study overlooked and did not report neuroselective CPT data. Most importantly, the authors conclusion suggesting that NSC is superior because it can detect proximal neuropathies such as CTS is missing the fact that the CPT evaluation may be conducted from any cutaneous site as well as mucosal sites. CPT measures are used to evaluate proximal nerve function, focal nerve impairments (including CTS), radiculopathies and myelopathies as well as to distinguish between axonal versus demyelinating polyneuropathies [7–10].

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References


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