Back to basics when referring for an electrodiagnostic test

Dear Editor,

When the physician needs to tackle with nonspecific symptoms such as pain, weakness, and numbness. In this sense, electrodiagnostic studies are often requested to assess several neurological or musculoskeletal pathologies.[1] Indeed, they provide prompt functional evaluation as regards nerves and muscles innervated by them - eventually making the physicians arrive at particular diagnoses.[1] As such, electrodiagnostic tests are undoubtedly valuable as the extension of clinical/neurological examination.

Herein, apart from the patient's clinical data, these referrals need to highlight a neurological diagnostic question formulated along with clinically relevant and specific history along with focused examination to guide for a better differential diagnosis. In addition, such guidance also helps the physician to perform the correct tests while avoiding unnecessary others.

Interestingly, we have observed in the literature (as well as in our clinical practice) that physicians from many specialties are not fully acquainted to utilize these tests.[2,3] Yet, the major delinquency experienced in daily electrodiagnostic laboratories is poor referrals.[2,3]

For better understanding this phenomenon, we have summarized/clustered poor referrals into two different groups. The first includes those which lack precise diagnostic suspicion where the referring letter is thus vague. These types of referrals usually lack not only enough clinical data but particular diagnostic suspicion either, for example, arm pain [Figure 1a and b]. The second group comprises irrelevant referrals whereby electrodiagnostic tests would naturally be noncontributory, for example, rotator cuff pathology misinterpreted as radiculopathy [Figure 1c and d].

To this end, we propose electrodiagnostic examination mainly for patients with unequivocal clinical signs of a peripheral nervous system lesion and/or to rule out specific pathologies in the differential diagnosis. For sure, "thinking twice" before referring for electrodiagnostic tests is important in terms of cost (for the patient and physician) and time (for the physician). Of additional note, avoiding unnecessary discomfort to the patient would also be as at least important as the former two issues. Similar to a foreign language, writing a referral for an electrodiagnostic test needs a dialogue that should be practiced more carefully and perhaps more often as well. Hence, concerning the first group, we find it best for physicians to go back and perform a focused history and neurological examination to substantiate a probable diagnostic question. For the latter, we recommend physicians to opt back to their basic anatomy to better understand the scope of this test. Last but not least, whenever needed, we also highlight the importance of repeat medical history taking and physical examination

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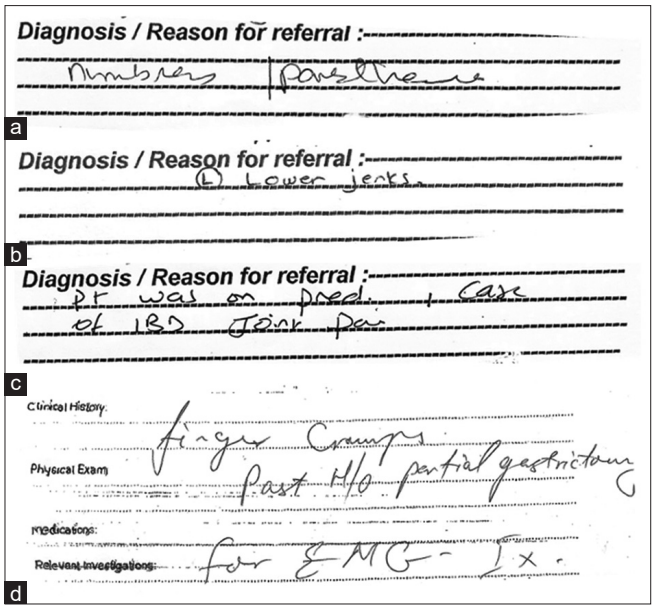

Figure 1: (a and b) Examples of inappropriate referrals which lack a history, clinical examination, and diagnostic question whereby electrodiagnostic tests were unremarkable, (c and d) Examples of inappropriate referrals (i.e., arthritis and trigger finger) whereby electrodiagnostic testing was unremarkable

by the physician who will eventually perform the electrodiagnostic tests.

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Conflicts of interest

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