Invited Commentary

Sunil Pradhan

Department of Neurology, Institute of Human Behaviour & Allied Sciences, Dilshad Garden, Delhi

Selectivity of weakness among different muscles or muscle groups has always fascinated the clinicians in arriving at specific diagnosis of motor system disease. Whether it is preferential involvement of anti-gravity muscles in upper motor neuron disorders, differential involvement of trunk (hypotonic) and limb (spastic) muscles in cerebral palsy or the affection of specific group of muscles in muscular dystrophies, these all are the examples of exploitation of selectivity of muscle involvement for the purpose of clinical diagnosis. Not much has been said in this regard about generalized neuropathies except predilection of some for proximal muscles and of majority for distal muscles. In this context the article “Finger drop sign in Guillain Barre syndrome” is a remarkable piece of work suggesting the diagnosis of AMAN variety of GB syndrome as against AIDP variety whenever predominant weakness of finger extensors was encountered. With an exception of toxic neuropathy due to lead exposure, which in any case has a sub-acute or a chronic presentation, no acute generalized polyneuropathy is known to have such predilection for extensors of the fingers. With time and validation finger drop sign is likely to gain popularity among neurophysicians in the clinical diagnosis of AMAN. Though “finger drop sign” has been described in a variety of other neurological disorders, most of them are focal disorders leading to unilateral posterior interosseous nerve syndrome and are obviously out of context due to focal nature of these diseases. Among the more generalized disorders “finger drop sign” has been observed with multifocal motor neuropathy, motor
neuron disease and myasthenia gravis; these ailments can be easily differentiated from AMAN on the basis of their clinical course and other differentiating features, though at times it becomes a difficult task on clinical grounds alone.

As happens with any new observation, this article can at best be regarded as having a novel finding which requires further validation through observations by other authors. This is more so because of the fact the number of patients in the AMAN group as compared to AIDP group falls short of what is required for a good statistical analysis and this appears to be the reason why in spite of having two properly worked up groups no statistically valid comparative account of differential weakness among the flexor and extensor group of muscles could be produced at finger or wrist level between AMAN and AIDP.

Axonal neuropathies are generally regarded as having poorer prognosis compared to their demyelinating counterparts. Good prognosis among the AMAN patients in this paper may fall in line with several reports of this kind from selected areas of the world where AMAN has been ascribed to reversible blockade of internodes of the motoneurons by specific autoimmune antibodies resulting in complete blunting of the electrophysiological response akin to theoretically possible pure motor axonal neuropathy. This also segregates AMAN from another related disorder, acute motor and sensory axonal neuropathy (AMSAN), percentage of which has been shown amazingly low in this paper, where true axon loss has been implicated to the poor prognosis. Observations from other centers are therefore required to understand true nature of AMAN which also reflects in its prognosis and only then the “finger drop sign” will attain its full utility in routine clinical practice.

Address for correspondence:
Prof. Sunil Pradhan,
Department of Neurology, Institute of Human Behaviour & Allied Sciences, Dilshad Garden Delhi
E-mail: drspradhan@rediffmail.com

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