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Electrophysiological and magnetic resonance imaging correlate of non-traumatic ulnar neuropathy: Study from a tertiary care centre

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Objective: Ulnar nerve is frequently involved nerve in the upper limb producing mononeuropathy and on most occasions it is not explored beyond electrophysiology. The aim of the study here is to present the electrophysiology and the Magnetic Resonance Neurography (MRN) findings of non-traumatic ulnar neuropathies.

Method: In this prospective study 39 consecutive patients suspected to have non-traumatic ulnar neuropathy underwent Electrophysiological Studies (EPS) to confirm the diagnosis. Nerve conductions were performed in all the four limbs while electromyogram was done in the muscles supplied by the involved ulnar nerve only. Patients with localization of lesion along ulnar nerve after EPS and with informed consent underwent MR neurography.

Result: Electrophysiology studies confirmed ulnar neuropathy in 36/39 patients (92.31%). There was male predominance (79.49%) among our group of patients. Lesion localization to elbow and to wrist by EPS could be possible in 66.67% and 33.33% patients respectively. MR-neurography was done in 21 (53.8%) patients. The MRI and EMG findings were in agreement in 18 (85%) of the 21 patients. Various etiologies identified for non-traumatic ulnar neuropathy with ulnar neuritis and enlarged cubital nodes accounting for 38.57% and 14.28% cases respectively.

Conclusion: Ulnar neuritis was the most common cause of non-traumatic ulnar neuropathy followed by enlarged cubital node in our series. MR neurography offers a non-invasive method for identifying an etiology of lesions along the nerve course and is likely to modify the management decision.

Biography

Divya M Radhakrishnan has completed her MD Medicine and DM Neurology from All India Institute of Medical Science, New Delhi, India.

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