

Clinical and nerve conduction study correlation in patients of diabetic neuropathy.

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Abstract

AIMS AND OBJECTIVES:

1) To study types of neuropathy in Type 2 diabetes. 2) To correlate clinical features of peripheral neuropathy with nerve conduction study in Type 2 diabetes.

MATERIAL:

A total of 50 diabetics, whose onset of diabetes after the age of 30 years were studied from Dr. D. Y. Patil hospital and research centre. Type 2 Diabetes mellitus with symptom suggestive of peripheral neuropathy were studied and included. Chronic alcoholic, peripheral neuropathy due to any other known cause were excluded. METHOD OF COLLECTION OF DATA: History of symptoms like paraesthesia like tingling sensation, burning feet, hyperaesthesia, foot ulcer, history of weakness and gait abnormality was noted. Complete central nervous system examination was performed to look for signs such as diminished ankle jerk, diminished power. Sensory examination for loss of light touch, superficial pain, temperature sense, vibration and joint position was done. Nerve conduction studies were performed using Clarity Octopus NCV/EMG machine. Written and informed consent from patient were taken.

RESULTS:

1) 46 patients i.e. 92% presented with complaints of tingling sensation and 32 patients i.e. 64% had burning feet. 2) 29 patients i.e. 58% have diminished ankle jerk, 29 patients i.e. 58% have diminished or loss of vibration sense, in 21 patients i.e. 42% patients have diminished light touch and 20 patients i.e. 40% patients have loss of joint position senses. 3) NCV performed on 50 patients of diabetic neuropathy out of which all patients i.e. 100% had involvement of lower limb and only 24 patients i.e. 48% had involvement of upper limb also. 4) Involvement of tibial and sural nerve is more common i.e. 86% and 82% respectively. 5) 42 patients i.e. 84% found to have distal symmetrical polyneuropathy, 2 patients i.e. 4% had isolated tibial nerve involvement, 4 patients i.e. 8% had pure sensory sural nerve involvement, and only 1 patient each of isolated medial and plantar nerve involvement.

CONCLUSION:

Distal symmetrical polyneuropathy is most common form of diabetic neuropathy. Involvement of tibial and sural nerve is more common in diabetic neuropathy.