

Diabetic Neuropathy: Discordance between Symptoms and Electrophysiological Testing in Saudi Diabetics

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Objective: To determine the prevalence of nerve conduction velocity alteration in symptomatic diabetic neuropathy and to report the associated risk factors.

Method: A cross sectional study of Saudi diabetics followed up in the medical outpatient clinic at King Abdulaziz University Hospital between January 1998 to May 1999. Diabetic neuropathy was diagnosed using the Michigan Neuropathy Program. Patients included in the study were those who had symptomatic neuropathy and scored >2 on simple clinical examination. Nerve conduction studies were done, detailed information of each patients age, sex, Body Mass Index (BMI), type and duration of diabetes, mode of treatment, degree of glycemic control, presence of hypertension, hyperlipidemia and smoking were recorded.

Results: A total of 136 patients were included in the study with mean age of 56.2 years and mean duration of diabetes 12.49 years. Normal nerve conduction studies were found in 36% of the patients. Patients using insulin , prolonged and poorly controlled diabetes were the most important risk factors associated with diabetic neuropathy ($p<0.001$).

Conclusion: The discordance between symptoms and nerve conduction studies means that we need nerve conduction studies for the proper diagnosis of diabetic neuropathy. Prolonged, poorly controlled diabetes and insulin use were risk factors associated with diabetic neuropathy. Aggressive/strict control of blood glucose is the key in the ultimate prevention of diabetic neuropathy.