

A Study on Prevalence of Diabetic Peripheral Neuropathy in Type 2 Diabetes Patients Visiting Urban Health Center

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Abstract

Introduction: Diabetic neuropathy is a common complication, affecting up to half the diabetics. Diabetic Peripheral Neuropathy (DPN) predominantly affects the hands and lower limbs. It leads to loss of protective sensation, resulting in continuous injury to insensitive feet. The early detection of DPN using an objective screening test followed by its appropriate management is important, as up to 50% of diabetic peripheral neuropathies may be asymptomatic.

Objectives: To screen diabetic patients attending an Urban Health Centre of a Marasur Bangalore for DPN. To assess the association between DPN and sociodemographic factors, duration of diabetes, glycemic control, physical activity, body mass index, smoking and habit of alcohol consumption.

Materials and Methods: The study was conducted among 156 diabetic patients attending an Urban Health Centre. Participants were assessed using the Michigan Neuropathy Screening Instrument (MNSI), which involves using a questionnaire followed by a physical examination.

Results: The results revealed those 156 patients, 66.6% were male, and 33.3% were female. The mean age was 50.86 years (Standard Deviation [SD] = 12.26 years). The mean duration of diabetes was 8.3 years (SD = 5.5 years). The proportion of diabetics who were screened positive for peripheral neuropathy was 16.5% and 21.8% and 16.5% using the MNSI questionnaire and examination, respectively. Age of 60 years and above was significantly associated with DPN. (OR = 3.982, P value = 0.0001). Duration of more than 5 years of diabetes was also significantly associated with DPN. (OR = 6.01, P value = 0.003).

Conclusion: A high proportion of diabetics were screened positive for peripheral neuropathy, and many of them were unaware of having the complication. Many risk factors associated with DPN were reported in this study. Thus, early diagnosis and management with MNSI or any other validated screening tool in health care institutions is essential.

Keywords: Diabetic Peripheral Neuropathy; Michigan Neuropathy Screening Instrument