

Diabetes and Neuropathic Pain: Screening with the DN4 Questionnaire

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Abstract:

Background:

Diabetic neuropathy (DN) is a common complication of diabetes, affecting approximately 30% of diabetics at the time of diagnosis. The DN4 questionnaire is a simple, quick, and validated tool for diagnosing diabetic neuropathy.

Objective:

The objective of our study is to assess the prevalence of diabetic neuropathy using the DN4 questionnaire in our diabetic patients and to identify factors associated with diabetic neuropathy.

Patients And Methods:

A retrospective cross-sectional study at Mohammed VI University Hospital included type 1 and 2 diabetic patients from June 2021 to June 2022. Exclusion criteria: <5 years of type 1 diabetes and non-diabetic neuropathic pain. Patients underwent clinical, multidisciplinary, and lab assessments. Diabetic neuropathy was assessed with the DN4 questionnaire (DN4 score $\geq 4/10$). SPSS 26 software analyzed the data.

Results:

In this study of 231 diabetic patients (mean age: 45.77 years, 67.1% female), 36.8% had type 1 diabetes, and 63.2% had type 2 diabetes. Treatment included insulin (51.5%), oral antidiabetic agents (35.5%), both (6.9%), and dietary measures (2.2%). The average diabetes duration was 7.21 years, with HbA1c at 10.4%. Diabetic neuropathy prevalence was 28.1%. It was more common in women (73% vs. 27%), not statistically significant ($p=0.15$), associated with poor glycemic control ($p=0.12$), and correlated with age ($p=0.002$), alcohol use ($p=0.045$), and diabetes duration ($p=0.001$).

Discussion And Conclusion:

Diabetic neuropathy is one of the most common complications of diabetes, often asymptomatic. Various questionnaires have been published to identify neuropathic pain. In our study, we found a significant association between diabetic neuropathy and age, duration of diabetes, and alcohol consumption.

Keywords:

Diabetes mellitus, DN4, diabetic neuropathy.