Purpose: This study aims to evaluate the prevalence of such a common and morbid neuropathy complication in a sample of Saudi diabetic patients.

Methods: A descriptive questionnaire-based cross-sectional survey was conducted of sample of all diabetic patients who attend the specialist diabetes and endocrine centre in Prince Mansour Military Hospital in Taif, Saudi Arabia. A monofilament test was used to identify peripheral neuropathy cases, whereas its associated factors were identified through generalized linear logistic regression analysis.

Results: The study included (n = 343) diabetic patients. The prevalence of peripheral neuropathy was 84.8% affected patients (n = 291). Dyslipidaemia increased the risk for neuropathy by 98.4% (P = 0.04614). An interaction existed between the duration of diabetes and HbA1c levels in terms of their effect on peripheral neuropathy. When the interaction term is included, a positive association between neuropathy and both HbA1c (increased risk by 46.2%, P = 0.03222) and DM duration (increased risk by 19.6%, P = 0.04497). Cardiovascular disease reduced neuropathy risk by 62.1% (P = 0.03516), and retinopathy reduced neuropathy risk by 60.9% (P = 0.00782).

Conclusions: Over four out of every five patients have peripheral neuropathy. This is because our study was conducted among a high-risk group of attendees at the specialist diabetic centre. Dyslipidaemia, poor glycaemic control, and longer diabetes duration were associated with peripheral neuropathy in our participants, confirming a direct nerve-damaging effect for high levels of lipoproteins, glucose and lipids in the blood.