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Letter-to-Editor

Exploring gender-related patterns in diabetic peripheral neuropathy: Limitations of current evidence

Sir,

The report prepared by Mohan *et al*[1] (2025) provides valuable information on the frequency of gender-specific complications observed during a 10 y follow up in Asian Indian patients with type 2 diabetes (T2D) who initially had no complications. The authors emphasize that women have a higher risk of peripheral arterial disease and a lower risk of diabetic retinopathy and coronary artery disease; however, no gender differences were found in the development of kidney disease and peripheral neuropathy.

Diabetes is a global epidemic and is expected to affect more people in the long term; this increase is largely attributed to the rise in T2D prevalence alongside ageing. As diabetes prevalence increases, the burden of diabetes-related complications is also expected to rise. Among diabetes complications, the most common are those involving damage to the peripheral and autonomic nervous systems. The prevalence of diabetic peripheral neuropathy (DPN) varies between 1% and 80% depending on the country. This wide variation is due to disease severity, duration of diabetes, DPN definition criteria, and factors predisposing to neuropathy development, particularly metabolic syndrome.[2]

Firstly, the authors reported that the incidence of DPN was high (62.8%) in this study. However, it was not specified how many patients initially had triggering and accelerating factors such as hypertension, anaemia, low HDL, high creatinine, diabetic retinopathy, and diabetic nephropathy in patients who developed neuropathy.[3] Although individuals who developed DPN were selected from among those who did not initially have DPN, some patients may have had diabetic retinopathy or kidney disease at baseline; therefore, there may be partial overlap among the micro complications. These shortcomings limit the interpretation of the findings and the clear understanding of the relative impact of risk factors.

Smoking, alcohol consumption, obesity, vitamin D and vitamin B12 deficiency, and low C-peptide levels are potentially modifiable risk factors for the development of DPN.[2] Although this study identified some modifiable risk factors, there are limitations that should be considered. Variables such as alcohol and smoking were not measured in all groups (NA), which limits intergroup comparisons and generalisability. Furthermore, the lack of measurement of vitamin D and B12 levels prevents the full determination of potential contributions.

Finally, authors have reported in previous studies that diabetic peripheral neuropathy is more common in women than in men. However, Mehta *et al*[4] (2011) examined the prevalence and risk factors of peripheral neuropathy in Kenyan adults infected with human immunodeficiency virus (HIV) who had started antiretroviral treatment and did not make a gender-based comparison specific to diabetic neuropathy. Similarly, Dieleman *et al*[5] (2008) reported that neuropathic pain is more common in women across various types of neuropathies; however, this finding does not directly indicate that DPN is more common in women. Therefore, neither of the two cited sources directly supports the claim that DPN is more common in women. A review of the literature reported that while some studies report male gender as an independent risk factor, other studies have found higher prevalence or more severe neuropathic pain in women.[6] However, many large-scale studies have shown that gender is not an independent predictor of DPN.[2,3]

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