A community-based epidemiological study of peripheral neuropathies in Assiut, Egypt

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Abstract:

There is very little published information about the prevalence, patterns, and predictors of peripheral neuropathies. The current study is a community-based survey conducted in the Assiut Governorate to estimate their prevalence and clinical profile. Material and methods: A door-to-door study was carried out on 42,223 persons from rural and urban communities in the Assiut Governorate, Egypt. There were 13,288 (31.5%) subjects from the urban and 28,935 (68.5%) from the rural area. All subjects filled in a questionnaire designed specifically for diagnosis of peripheral neuropathy. Positive cases were then given a complete medical and neurological examination, routine laboratory tests, neurophysiology, and neuroimaging (magnetic resonance). Results: The crude prevalence rate (CPR) of peripheral neuropathy was 3,181/100,000 inhabitants. There was a significantly higher prevalence in the rural compared with the urban population (3,795 versus 1,844/100,000) and in females than males (4,473 versus 1,943/100,000; P<0.001 for both). The most common type reported was entrapment neuropathy (736 cases with CPR of 1,743/100,000), particularly carpal tunnel syndrome (1,686/100,000). Diabetic neuropathy was the most common non-compressive neuropathy with a CPR of 649/100,000. Type II diabetes was recorded in 241 patients with a CPR of 571/100,000. Compressive radiculopathy had a crude prevalence of 358/100,000; traumatic and iatrogenic radiculopathy had a prevalence rate of 149/100,000. Less common conditions were: uremic neuropathy (21/100,000), hepatic neuropathy (14/100,000), Bell's palsy (28/100,000), Guillain-Barre syndrome (12/100,000), chronic inflammatory demyelinating polyneuropathy (12/100,000), hereditary sensory motor neuropathy (12/100,000), and idiopathic neuropathy (92/100,000). Conclusion: The overall prevalence of peripheral neuropathies was high in comparison to other studies. Entrapment neuropathy, diabetic neuropathy, and spondylotic radiculopathy were the most common. Overall, the prevalence of peripheral neuropathy was higher in the rural than in the urban population.

Keywords:

Peripheral neuropathy, Diabetic neuropathy, Radiculopathy, Prevalence, Egypt

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