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The epidemiology of multiple sclerosis in the West Bank of Palestine

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Abstract

Background: Multiple sclerosis (MS) is the commonest chronic inflammatory degenerative disease affecting the central nervous system that mainly affects young adults. There is increasing incidence and prevalence of MS in both developed and developing countries, the underlying cause of which remains uncertain. Multiple sclerosis (MS) is a chronic central nervous system inflammatory disease of autoimmune etiology, mediated by activated T cells with evolving evidence of a significant contribution from B cells and cells of the innate immune system. The disease is thought to be due to a complex interaction between different genetic and environmental factors.

Aim: in our study, we aim to study the epidemiology of MS in all demographic area of west bank of Palestine.

Methods: A Retrospective analytical study was conducted in 2020-2021 on 1652 MS patients. Demographic and clinical records of MS patients was collected from Palestinian Ministry of Health, MS society and private clinics. Records included age, sex, onset of symptoms, year of diagnosis, family history, smoking history.

Results: 65.01% of patients were females and 34.99% were males. 81.9% of all patients did not have a family history, while 18.1% had a family history. About 55% of all MS patients were non-smokers, while 36% were current smokers and 8.6% were ex-smokers. Sex mortality rate was higher in females compared to males (54 and 30, respectively). Most common symptom at onset of the disease in both sexes was blurred vision (15.74%). However, least first symptom was sexual dysfunction (0.3%). 37.77% of all lesions were in the brainstem/ cerebellum area. 57.87% of all MS patients suffered from the relapsing pattern as the initiating pattern of the disease. 794 and 730 patients were diagnosed at age groups (15-29) and (30-44) respectively, which comprises 92.25% of all patients. The incidence of MS was 1.96 (95% CI) cases per 100,000 in 2010. In 2019, the incidence of MS was 2.47 (95% CI) and 4.66 (95% CI) for 100,000 male and female, respectively.