RESUMO

Background: Multiple sclerosis (MS) is a chronic inflammatory demyelinating central nervous system disease that most commonly affects young Caucasian females. There are two main phenotypes: relapsing–remitting (RRMS) and progressive disease. The disability due to MS is measured by the Expanded Disability Status Scale (EDSS). MS symptoms may include fatigue, depression, cognitive lapses which are called phantom symptoms because they are not assessed in the neurologic examination. Fatigue worsens neurologic deficits, affects daily life activities and reduces Health-Related quality of life (HRQoL). The most widely used instrument for analyzing the perceived health status in MS patients is the 36 Short Form Health Survey (SF-36). Studies on HRQoL describe a reduction in all SF-36 scores in MS. However, patients in those studies had neurologic deficits and most complained of fatigue and had depression. Objective: The aim of the study was to describe HRQoL in patients with MS without physical disability and healthy controls (HC) and investigated the impact of depression and fatigue in the physical and mental domains. Methods: This is a cross-sectional study of Brazilian patients from Rio de Janeiro with relapsing remitting MS who had EDSS scores of 0–1.5 indicating no impairment. All participants were interviewed in the Neurology Department of the Gaffrée and Guinle University Hospital (Rio de Janeiro, Brazil). HC were selected among students and staff of the institution without difference of gender, age, body mass index (BMI) and level of education. Exclusion criteria included smoking; comorbidities (heart disease, high blood pressure, lung disease, anaemia, diabetes mellitus, thyroid disease, psychiatric illness and chronic pain); lower limb deformity or use of medication for fatigue, depression or insomnia. Patients were interviewed and medical records were reviewed to collect demographic and clinical information. Instruments used included SF-36 to assess HRQoL, Beck Depression Inventory to assess the severity of depression, Fatigue Severity Scale and 6-minute walk test to assess subjective and motor fatigue and Paced Auditory Serial Addition Task to assess cognition in patients and healthy controls. Multiple linear regression models were applied in each of the eight SF-36 domains in all participants to analyze the influence of demographic and clinical factors on the reduction of HRQoL. Results: Fifty-four individuals were included in this study, 31 with MS diagnosis and 23 healthy controls. There were no significant differences in demographic and clinical characteristics except for the presence of fatigue (MS: 64.5% vs. control: 21.7%, p = 0.002). Sedentary lifestyle, depression, fatigue and MS diagnosis had a negative impact on specific SF-36 scores. However, in the multiple regression model, only depression and fatigue were associated with reduced SF-36 scores. Patients with depression had worse scores for physical function (p = 0.006), bodily pain (p = 0.011), vitality (p < 0.001), emotional (p < 0.001) and mental health (p < 0.001), whereas patients with fatigue had worse scores for physical function (p = 0.006) and vitality (p = 0.001). Conclusions The variable diagnosis of MS disease does not reduce HRQoL in patients without disability. However, the presence of fatigue and depression were independently associated with reduction in specific SF-36 domains. The physical function and vitality domains were affected by both variables.