Clinical Features of Multiple Sclerosis in Puerto Rico

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Abstract
Multiple Sclerosis (MS) is a chronic neurological disease of the central nervous system (CNS). The objectives of the study are determining the clinical features of MS in PR. A cross-sectional analysis was performed to examine disease-related information. 698 questionnaires were received and evaluated. Descriptive statistics were used to analyze socio-demographic and MS related variables, such as: onset and current symptoms, diagnosis date, exacerbations, family history, treatment, use of assistive equipment, psychological manifestations, patient's needs, and comorbid medical conditions. The statistical analyses were performed using SPSS, version 17.0.

Methods
This cross-sectional study examine demographic and disease-related information. Validated questionnaires were sent out across the island of PR to patients from the PR MS Foundation and diagnosed with MS. We obtained the patient's general information, place of residence before turning 16 years old, date of onset and date of the diagnosis of MS; symptoms, relapses, family history of MS; medications, and use of auxiliary equipment. The diagnosis was based on the Poser criteria. The migration effect was avoided by selecting patients born and raised in PR until at least the age of sixteen. A total of 698 questionnaires were analyzed following by statistical calculations describing variables. Descriptive statistics were used to analyze socio-demographic and MS related variables, such as: onset and current symptoms, diagnosis date, exacerbations, family history, treatment, use of assistive equipment, psychological manifestations, patient's needs, and comorbid medical conditions. The statistical analyses were performed using SPSS, version 17.0.

Results

Distribution of Multiple Sclerosis Patients in Puerto Rico by Municipality

Of 698 eligible participants, 79% were women and 21% were men. The mean age for women patients was 35 to 44 years and for men was 45 to 54 years. The main symptoms reported by patients after the first MS exacerbation were: extreme fatigue (60%), coordination problems (64%) and weakness (60%). 60% of MS patients utilized drug treatment. During their childhood, 82% of the MS patients had been more aggressive as has been thought or compared to the Afro-American.

Discussion

In general, the mayor findings can be summarized as follows:

Gender Ratio: 4 women with MS for each man with MS.
Average age of MS women patients: 35 to 44 years.
Average age of MS men patients: 45 to 54 years.
The average age at the onset of MS for women is 33 years and for men is 32 years.
The average age at the diagnosis of MS for women is 36 years and for men are 34 years.
The average range between the onset and the diagnosis of MS among the participants is 8 years for women and 10 years for men.
The participants of both gender reported MS duration of 12 years approximately.
38% of MS patients informed that their occupational status is disabled and 3% is sick leave.

The current symptoms identified by the MS patients are: numbness (74%), weakness on legs and arms (68%) and visual problems (63%).

The main symptoms reported by patients after the first MS exacerbation are: extreme fatigue (68%), coordination problems (64%) and weakness (60%).
60% of MS patients utilized Interferon as drug treatment. During their childhood, 82% of the MS patients had chickenpox.

In comparison with Caucasians, the condition presents similar characteristics and is not more aggressive as has been thought or compared to the Afro-American.

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