Research Article

Awareness rate of Ardabil city people about multiple sclerosis

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ABSTRACT

Background: Multiple Sclerosis (MS) is a chronic autoimmune disease of the central nervous system (brain and spinal cord) and affects the optic nerves. The aim of this study was to evaluate the knowledge rate of Ardabil city people about multiple sclerosis.

Methods: This study is a descriptive analytical study that has been done on 150 people of Ardabil which selected randomly from all over the city based on geographical location. Data gathered by a questionnaire include two section characterized and knowledge questions. Collected data analyzed by statistical methods in SPSS.16 using tables, charts and statistical indexes.

Results: The study population aged between 20-65 years with a mean age of 32/34 years. 48/7% of participants were female and 51/3% men. Approximately 25/3% of Participants in this study had good knowledge about MS and other have moderate level and lower rate of knowledge. Most of people get their information through TV and radio programs about MS (46/2%).

Conclusions: Results showed that the knowledge rate of people about MS was in moderate and lower levels. So, present educational programs and increasing knowledge rate of people about MS by TV and radio programs is necessary.

Keywords: Multiple sclerosis, Knowledge, People, Auto-immune, Ardabil

INTRODUCTION

Multiple Sclerosis (MS) is a chronic inflammatory disease in the central nervous system that mostly occurs in the third or fourth decade of life.[1] Clinical symptoms include: numbness, lethargy, loss of muscle coordination, vision problems, tongue tie, sexual problems, and bladder control.[2] Based on clinical signs, MS can be categorized into Relapsing-Remitting (RR) with a prevalence of approximately 85%, Primary Progressive (PP), Secondary Progressive (SP) and Progressive-Relapsing (PR) types.[3,4] The disease has been identified throughout the world and the incidence and prevalence of the disease varies considerably in different regions and populations (Elaine et al., 2013). In America, 75 people per 100000, and in Iran, about 40 people per 100000 are affected by this disease. From age 20 to 40, women are twice more likely to have MS than men. Concerning geographic distribution, MS increases in latitudes the north and south poles of the equator[4,5] as such that none of the high risk population is concentrated at latitudes beyond 40 degrees.[6] If a person's sibling has the disease, the disease

risk will be 1-5 percent. The probability of incidence between identical twins (one-egg) rises to 25 percent.[4] considering the above points and the strong association of it with specific antigens (HLA-DR4) HLA, it has been suggested that the disease have genetic background. The alleles (IL-2 receptor and IL-7 receptor genes) have been determined as risk factors for the disease.[6]

Etiology or cause of the disease still remains unknown. However, 15-20% of patients have reported a family history of MS.[2] Current evidence supports the assumption that the disease has an autoimmune background. The main environmental risk factors include infectious and noninfectious factors such as low levels of vitamin D and smoking.[5-10]

Diagnosis of MS is based on clinical symptoms and requires to be confirmed by MRI of brain and spinal cord and CSF test. There is no definite cure for MS. The medications prescribed only can change the course of the disease. The purpose of therapy is to shorten the acute phase of the disease. Medications such as prednisone, dexamethasone, and methyl prednisolone are used to reduce the duration of acute attacks of MS.[11]

In Iran, what is remarkable about MS is the disease's growing incidence in the recent years. The high level of psychological problems like anxiety, stress, and depression among those affected by MS makes most of the patients not have the ability to get along with the disease; instead, they focus full attention on their future problems. Additionally, changes in marital relations, sexual function, self-esteem, and mood, as well as, limited social activity and economic problems reduce the patients' quality of life.[12] Taking the complications of the disease and the importance of creating a context for developing awareness among the people for reducing the suffering of patients and their families as well as empowering the patients' caregivers and relatives by increasing their knowledge and skills in providing care, we made an effort in this study to investigate and evaluate the knowledge and understanding of MS among people living in the city of Ardabil.[13]

METHODS

The present descriptive-analytical study was undertaken in 2012-13, to assess the level of individuals' awareness of MS in Ardabil city. The statistical population involved inhabitants of Ardabil with age range between 20 and 65. The sample was chosen randomly and included 150 cases. All samples selected randomly from all over the city by geographical locations by samplers. The researcher made questionnaire was used for gathering data and consisted of two parts: demographic characteristics, (such as age, sex, and education), and 20 items about knowledge in various areas (including symptoms, complications, treatment and nutrition of patients). The questions were either in the form of multiple choice or two-choice. In scoring, one point was

given to each correct answer, and zero to each wrong answer. And the awareness score was calculated by sum of the scores, i.e., total score varied between 0 and 20 (with the minimum score of zero and the maximum score of 20). The level of individuals' awareness was classified into three levels of good, (above 15), Medium (7-14) and poor (less than 6). To assess the content validity of the questionnaire, we asked some experts to comment on it and their suggestions were considered for modifying the questionnaire. The data were analyzed by descriptive and analytical statistical methods using SPSS16 and were presented in tables, graphs and statistical indices.

RESULTS

The age range of population under study was between 20 and 65 and had the mean of 32.3 ± 9.8. The results showed that 48.7% of the participants were female and 51.3 % were male in this study. In respect of education, 48.1% had or didn't have high school diploma, 51.9% had university or college degree. Most of people have moderate awareness (64%) (Figure 1). There was no significant relationship between age and gender of individuals and their awareness level. However, there was a significant relationship between the participants' education and their awareness level, in other words, the higher the level of their education was, the greater their awareness of the disease.
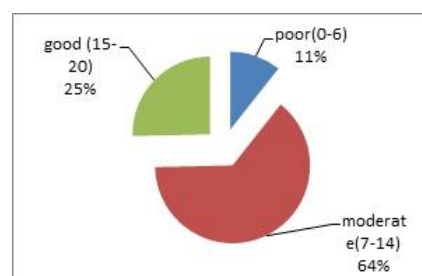

Figure 1: The frequency distribution of participants' level of awareness of MS.

Through statistical examinations, it was determined that the greatest amount of information was provided by broadcasting (46.2%), and the lowest amount by newspapers and magazines (12.7%) (Figure 2).
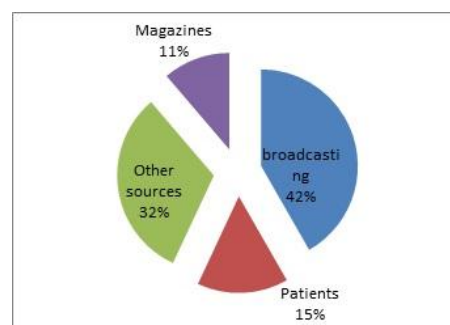

Figure 2: The frequency distribution of participants' source of information on MS.

Furthermore, 88% of individuals believed that MS is a noncontagious disease. Of the respondents 15.3% were aware of the most common symptoms of MS, and 84.7% had no information on the disease. Concerning stress and anxiety, 82% believed that stress and anxiety worsens the patient's condition and disease's process. Of the respondents, 53.3% regarded MRI as an important diagnostic method for MS.

DISCUSSION

In the current study, the awareness of people of MS was reported: good in 25.3% of the cases, average in 64%, and poor in 10.7%. Statistical analysis showed a significant relationship between the individuals' awareness of MS and their level of education. Considering the fact that most people with a low level of education had little knowledge about MS, their awareness can be raised via multi-media, TV shows, newspaper, etc. Both patients' awareness of the disease itself and their relatives' information on how to treat the patients, can perform a significant role in controlling the disease. By having knowledge and awareness, the patients' relatives who are more likely the main caregivers of patients can provide them with skilled help. Put differently, they can give appropriate response to the patient's nervousness, fatigue, irritability and other behaviors. Besides, the patients, themselves, can cope with MS with less difficulty.

In the present study, it was determined that most of people are aware of non-contagious nature of MS. Becoming aware of this feature of the disease is so important because it affects the quality of individuals' relationship with patients. It is very likely that if people don't have sufficient information regarding the disease, they avoid approaching the patients. Consequently, these reactions of people can increase depression and anxiety in patients. The present study revealed that 15.3% of the respondents were aware of the most common symptoms of the disease. This percentage indicates the low level of individuals' awareness of MS symptoms. It is necessary to provide people with crucial information concerning the issue. The majority of the participants in this study believed that stress worsens the patient's condition. There is limited information about effect of stress on developing the disease or exacerbating it. Marrie et al. have reported that most of patients with MS, suffer from unwanted stress over 2 years before the onset of the disease compared to control group. In an investigation conducted by Grant and his colleagues, it was found that patients with MS had experienced threatening events during 6 months prior to illness onset, compared with the control group.[14]

MS like any other chronic disease can cause stress in the patients. Therefore, the patients should be trained to manage stress. Stress management can reduce anxiety and stress in patients and improve their quality of life. MS does not just create physical symptoms but it entails a wide range of psychological symptoms, and neurological and cognitive disorders that are invisible and incomprehensible to the individuals around the patient. Rather, if people around the patient have adequate information on MS, they can better communicate with their patients. Another point to mention is developing awareness among children. Lack of knowledge of the disease makes children to be scared of it. And this fear, in turn, causes depression and behavioral disorders in school. In a study undertaken in 2007, showed that the children whose parents had MS, suffered from higher degree of depression and anxiety in comparison with control group.[15] However, in another study conducted in 1987, Kikuchi et al reported a high quality life for Canadian children who had parents with MS. Although the children had lower level of knowledge about MS, they were less scared, nervous, and gloomy.[16] Additionally, Yahav et al.'s study in 2005 demonstrated that the children who one of their patents had MS took more responsibility than the children whose parents were healthy. Also, they were more afraid of and anxious about MS.[17]

In the present study, it was shown that most of the individuals obtained their information on MS through TV programs and broadcasting. This finding uncovers the major significance of broadcasting in providing community members with information on the disease, hereupon, if broadcasting is more active in this area, it can have decisive role in concerning the illness. It is probable that as a result of lack of knowledge, the patients don't know that they can enjoy support of MS club or specific diseases section in medical science universities throughout Iran. To date, only few studies have investigated the patients' knowledge about MS. In Milan, a study conducted by Giordano evaluated the awareness of the disease in patients who were recently diagnosed for MS, by a questionnaire.[18] In a study by Asmahan et al. in Kuwait the quality of life of MS patients was assessed and it was found that there is a high degree of coordination between how family members and caregiver understand the patient and the patients' quality of life. Thus, physicians should inform the family caregiver about the nature and the management of MS.[19]

Sadat et al, in their studies on patients with MS who had referred to MS club in Isfahan, reported some patients' complaining about inappropriate behavior of individuals due to their lack of sufficient information on the disease, as well as their discontent over broadcasting's low activeness in providing information regarding MS. The patients expressed that even the name of this disease is still unknown among ordinary people, and the people's lack of knowledge is to the extent that they assume MS as contagious diseases like AIDS and avoid approaching patients.[20] Since the level of people's awareness is different in the society, the ways they treat patients and communicate with them vary as well. The research studies have manifested that lack of patients, their families and society members' sufficient information on

MS, the individuals' inadequate behavior with patients, along with changes in patients' family and social relationships cause patients to face problems in their jobs, families, and so on.

MS is a chronic disease in the central nervous system that due to its high incidence in the young age results in individual and social performance decline. Taking the investigations conducted into account, it can be concluded that most of patients with MS are in their second, third, or fourth decades of their lives. As a matter of fact, this age range is the efficient period of life. Therefore, the patients with MS face financial problems in their lives, or even, they probably lose their jobs. The employers' being informed of these individuals situation can affect the way they treat them. For instance, by apprehending the patients' condition the employers can give them tasks which are not that laborious and the patients can handle. By so doing, they don't lose their financial source, at the same time they perform the tasks which are not more demanding than they can tolerate.[20]

Results showed that the knowledge rate of people about MS was in moderate and lower levels. So, present educational programs and increasing knowledge rate of people about MS by TV and radio programs and also, doing future studies about epidemiology and trend of MS disease in various areas is necessary.

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