

# Delay in the Diagnosis of Multiple Sclerosis

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**Abstract: Background:** Multiple sclerosis (MS) is one of the disabling chronic diseases affecting adults. It is associated with demyelination, inflammation, and neurodegeneration within the central nervous system.

**Methods:** A descriptive case series study was conducted during World MS Day 2015. Information was collected by using self-administered questionnaire among MS patients, in 3 cities of Saudi Arabia.

**Result:** The study comprised a total of 436 MS patients. 70% of total participants were females, with age mean 30 year, diagnosis was varying between 1 years and 7 years, and 32% of participants were diagnosed in third year after initial symptoms of multiple sclerosis.

**Conclusion:** There is Delay in MS diagnosis among MS patients, a further study to explain the reasons for this delay is highly suggested.

**Keywords:** Multiple sclerosis, neurodegeneration.

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## 1. INTRODUCTION

Multiple sclerosis (MS) is one of the disabling chronic diseases affecting adults. It is associated with demyelination, inflammation, and neurodegeneration within the central nervous system (CNS).<sup>1</sup> The disease is usually diagnosed in individual aged between 18 and 40 years.<sup>2</sup> Most often, multiple sclerosis leads to sensory, motor, and cognitive dysfunctions, which may be progressive, temporary, or permanent. Therefore, multiple sclerosis may have adverse effects on relationships, employment and the general well-being and life quality.<sup>3</sup> The definite clinical diagnosis procedure can as well take a lengthy period. It has been approximated to be within a range of 0 to 3 years in the instance of MS following the onset of symptoms.<sup>4</sup> The estimated worldwide prevalence is approximately 30 people per 100, 000.<sup>5</sup> few studies regarding multiple sclerosis in Saudi Arabia, and in the present study investigator will comparing between time of diagnosis and first symptoms of MS disease.

## 2. AIM

To compare time of diagnosis and first symptoms of multiple sclerosis among those MS patients who present to World MS Day in 3 main cities of Saudi Arabia (Riyadh, Jeddah, Al Khobar), 2015.

## 3. METHOD

A descriptive case series study was conducted among MS patients during World MS Day 2015 in 3 main cities in Saudi Arabia, (Riyadh, Al Khobar, Jeddah) by using self-administered questionnaire. The frequencies were calculated of all studied variables with numbers & percentages.

## 4. RESULT

436 MS patients recruited during World MS Day (48%, 32%, and 20% from Al Khobar, Riyadh, and Jeddah respectively). 70% of participant are females while males were 30%. Age mean was  $30 \pm 7.21$  years. The majority of MS patients were 18-29 years old.

40% had university degree regarding level of education. Main work status was 41% employed, 33%, housewife, 15% students, and 11% unemployed. Regarding time of diagnosis, 14% of MS cases were diagnosed in same year of onset of

first symptoms, 24% in second years, 32% in third years, 22% in fourth year, 4% in fifth year, and 3% in sixth year, and 1 % in seventh year after symptoms onset.

## **5. DISCUSSION**

In spite of diligent research, up to investigator knowledge was not able to find any data for Gulf region particularly Saudi Arabia regarding comparing between time of diagnosis and first symptoms of MS disease, the present study found delay in diagnosis in some patients as following 14% diagnosed in same year of onset of first symptoms, 24% in second year, 32% in third year, and 22% in fourth year 4% in fifth year, and 3% in sixth year, and 1 % in seventh year after symptoms onset. We assume this may related to physicians in ER being unaware about symptoms of MS which are unpredictable and vary in intensity that could be very mild or very severe. Some MS cases experience atypical symptoms such as fatigue and numbness. While severe cases of MS can cause paralysis, vision loss, and diminished brain function. Generally, the topic of multiple sclerosis is rarely discussed in medical colleges. A further study is highly suggested to make explanations about the reasons for this delay.

## **6. CONCLUSION**

There is Delay in MS diagnosis among MS patients, a further study to explain the reasons for this delay is highly suggested.

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