

Case Report

Multiple Sclerosis in East Africa

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Abstract

Multiple sclerosis is a condition which has the potential of disabling the central nervous system. As such, the organs which are profoundly affected by multiple sclerosis include the spinal cord and the brain. When an individual has multiple sclerosis and the immune system tends to attack the myelin, (a protective sheath) covering the nerve fibers. As a result, communication through neuron-transmission is disrupted between the brain and other body organs. If the disease is not treated, it creates deterioration as well as permanent damage to the nerves in the body.

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INTRODUCTION

Multiple Sclerosis (MS) is a potentially disabling disease of the brain and spinal cord (central nervous system). In MS, the immune system attacks the protective sheath (myelin) that covers nerve fibers and causes communication problems between your brain and the rest of your body [1,2].

Some of the most common symptoms include:

- Fatigue
- Vision problems
- Numbness and tingling
- Muscle spasms, stiffness and weakness
- Mobility problems
- Pain
- Problems with thinking, learning and planning
- Depression and anxiety

Multiple sclerosis in Kenya was considered epidemic between 1983 and 1988. During the period, 6 patients, 2 males and 4 females were diagnosed with the disorder. According to the analysis by doctors at Kenyatta national hospital, the onset of the MS in the six cases was between 12-30 years.

All the clinical features, mode of presentation and prognosis presented by the six patients were similar to those observed at higher latitudes. Therefore, there have been various cases of multiple sclerosis in Kenya since the diagnosis in the twentieth century [3,4]. Therefore, there have been various cases of multiple sclerosis in Kenya since the diagnosis in the twentieth century [3,4].

CASE PRESENTATION

Indicates that Kenya is one of the countries in East Africa, which has had a significant prevalence of multiple sclerosis. According to the report of 2015, there were already 400 cases of MS, which were known to the doctors. However, the doctors indicated that there were

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more cases of MS in the country which had not been diagnosed [5,6].

The increased number of the undiagnosed MS condition among the Kenyans is associated with a wide range of factors. For instance, there only 15 neurologists in the country. Furthermore, the article indicates that the number of physicians who could handle MS were fewer in the past (Figure 1).

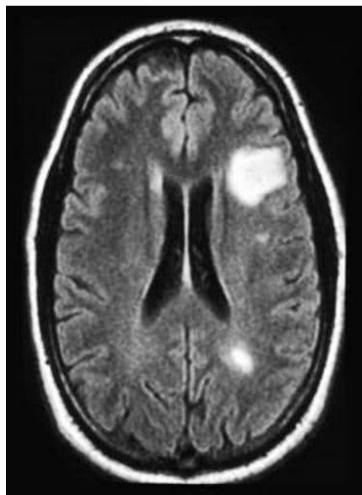


Figure 1. Multiple sclerosis practice essentials, background, pathophysiology.

There have been various instances where misdiagnosis of multiple sclerosis occurred. In neurological practice, multiple sclerosis misdiagnosis has thus become a contemporary issue. The neurologists who specify on the MS have always encountered patients who had experienced misdiagnosis of the MS indicates that there are different health consequences associated with misdiagnosis of MS. The misdiagnosis may have been done for almost a decade before the patient finds the MS specialist. Notably, the MS differential diagnosis is associated with many vascular, metabolic, inflammatory as well as rare genetic disorders. However, there are specific conditions to which MS is mistaken for, including fibromyalgia, migraine as well as functional neurological health conditions. The diseases are confused for MS as they produce lesions of white matter after the MRI scan. There are various negative impacts of MS misdiagnosis. For example, the patient is at a higher risk of therapies which modify the MS.

RESULTS AND DISCUSSION

The neurologists, on the other hand, may experience litigation as well as medicolegal claims. Moreover, the healthcare facility is at a profound financial loss following the unnecessary monitoring and prescription of disease-modifying therapy [7,8].

The updated procedure for testing for multiple sclerosis leads to early diagnosis, which is both timely as well as accurate. The physician should find damage in two or more areas in the central nervous system. Therefore, the doctor will be assessing the spinal cord, the brain, as well as the optic nerves. Besides, the doctor should look for evidence which shows that damage occurred to at least two areas at the same time. The examination requires various tools. For instance, there will be a need to conduct blood tests as well as the medical history of the patient. More importantly, the neurologic exam is significant in multiple sclerosis diagnosis [9,10].

Upon the identification of the points of damage, there is a need to utilize the McDonald criteria for diagnosis. The methodology has been revised, and it was published in 2017 following the approval by the international panel, which deals with the diagnosis of multiple sclerosis. According to McDonald procedure, cerebrospinal fluid and MRI analysis can be utilized to speed the process of diagnosis. If a person has only experienced the multiple sclerosis attack in one area, MRI can be useful in the identification of the other regions. As such, the MRI is significant in confirming that two areas in the body have experienced damage to the nerve cells at the same time. While using the cerebrospinal fluid analysis, the oligoclonal bands' presence helps in the MS diagnosis confirmation.

As indicated above, there are many cases of multiple sclerosis which have not been diagnosed in Kenya among other East African countries. The shortage of the number of neurologists is attributed to increased instances of undiagnosed MS. Furthermore, there are few healthcare centers with the facilities of dealing with the multiple sclerosis. As a result, there has been difficulty in acquiring

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accurate data about the prevalence of MS in Kenya and other countries within the East Africa region. Moreover, the few specialists are only based on urban centers and they also charge high amounts while dealing the MS patients. With increased cases and limited intervention, most patients often experience the progression of the MS, which then makes it hard to manage the disorder.

Besides the shortage of neurologists, there has been an increased misdiagnosis of the MS symptoms. For example, when a patient complains of fatigue, they are often treated for anemia or malaria. As a result, the multiple sclerosis is not identified in the early stages, particularly among the citizens in the rural areas. Lack of enough resources for the diagnosis of the multiple sclerosis in Kenya includes inadequate MRI scans. Therefore, Kenyans and other citizens in the East African countries are at a higher risk of misdiagnosis of the MS. More so, the citizens experience inappropriate treatment in the early stages of the disease.

CONCLUSION

In conclusion, multiple sclerosis is a prevalent disorder in Kenya, which leads to disabling of the central nervous system. There are few known cases of the disease. However, the health practitioners indicate that there are hundreds of cases of multiple sclerosis, particularly in the rural areas of the East African countries. Lack of enough resources, including the neurologists and MRI scans, leads to late diagnosis of multiple sclerosis. As a result, management of MS becomes expensive and complicated.

REFERENCES

- 1) Adam, AM "Multiple Sclerosis: Epidemic in Kenya." East Afr Med J 66 (1989): 503-506.
- 2) Solomon, Andrew J and Brian G Weinshenker. "Misdiagnosis of Multiple Sclerosis: Frequency, Causes, Effects, and Prevention." Curr Neurol Neurosci Rep 13 (2013): 1-7.
- 3) Kiyo, PG. "Emerging Picture of Multiple Sclerosis in Kenya." East Afr Med J 78 (2001): 93-96.
- 4) Lavanchy, Daniel. "Evolving Epidemiology of Hepatitis C Virus." Clin Microbiol Infect 17 (2011): 107-115.
- 5) Olson, Carin M. "Peer Review of the Biomedical Literature." Am J Emerg Med 8 (1990): 356-358.
- 6) Rudick, Richard, Jack Antel, Christian Confavreux and Gary Cutter. et al. "Recommendations from the National Multiple Sclerosis Society Clinical Outcomes Assessment Task Force." Ann Neurol 42 (1997): 379-382.
- 7) Polman, Chris H. "Early Diagnosis of Multiple Sclerosis-Still a Challenge?"
- 8) Mult Scler 14 (2008): 2-3.
- 9) Rudick, Richard A and Aaron E Miller. "Multiple Sclerosis or Multiple Possibilities: The Continuing Problem of Misdiagnosis." Neurology 78 (2012): 1904-1906.
- 10) Wang, Xiao-Xiong and Tong Chen. "Meta-analysis of the Association of IL2RA Polymorphisms rs2104286 and rs12722489 with Multiple Sclerosis Risk." Immunol Invest 47 (2018): 431-442.
- 11) Thompson, Alan J, AG Kermode, D Wicks, DG and MacManus BE. et al. "Major Differences in the Dynamics of Primary and Secondary Progressive Multiple Sclerosis." Ann Neurol 29 (1991): 53-62.