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A Tetra Paresis Revealing Multiple Sclerosis: About a Case and Review of the Literature

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Abstract

Multiple sclerosis (MS) is very little described in tropical environments. It represents the leading cause of non-traumatic neurological disability in young subjects. We report the case of a patient with MS, 31 years old with no particular medical history, progressively presented weakness of the 4 limbs followed by lumbar pain which regressed after 2 months under the effect of symptomatic treatment with corticosteroids. Three months later, he presented with dysarthria and gait disturbance. The neurological examination revealed a bilateral pyramidal syndrome and a kinetic-static cerebellar syndrome. Brain magnetic resonance imaging (MRI) has objectified bihemispheric hypersignals predominantly periventricular, internal capsule, lenticular nucleus, thalamus, frontal and parietal lobe in axial section on flair sequences. Biology showed inflammatory syndrome. The patient received boluses of methylprednisolone for one week. The clinical evolution was favorable with an EDSS score of 3 at discharge. We report a case of multiple sclerosis in the republic of guinea. The evolutionary mode was in favor of a second push of a relapsing form. The clinical evolution of our patient was favorable under corticosteroid therapy and the patient presented an EDSS score of 6 at discharge. MS is very little described in Guinea. The diagnosis is based on clinical and paraclinical arguments; corticosteroid therapy was the treatment of first choice in our context.

Subject Areas

Internal Medicine

Keywords

Multiple Sclerosis, Nervous System, Inflammatory Disease

1. Introduction

Multiple sclerosis (MS) is an inflammatory and demyelinating disease of the central nervous system (CNS) [1]. It represents the leading cause of non-traumatic neurological disability in young subjects. It presents a great variability of expression both clinically and neuroradiologically [2]. No additional examination does not make it possible to confirm its diagnosis, which is based on the presence of a bundle of clinical, biological and neuroradiological arguments [3]. Early treatment helps to avoid long-term complications of the disease, and can treat flare-ups, slow the progression of the disease and relieve its symptoms. [4] The objective of this study was to describe one of the first cases of a patient with MS.

2. Observation

Mr. SK, 31 years old with no particular medical history, who progressively presented dysarthria and gait disorder over three months after a period of remission for two months. Instead, an incomplete deficit of the four limbs followed by a low back pain which regressed after 1 month under the effect of symptomatic treatment with corticosteroids. The neurological examination revealed hypertonia of the 4 limbs with muscle strength rated at 4/5 associated with osteotendinous hyper-reflexia at the bicipital and patellar level, and a bilateral Babinski sign and a kinetic-static cerebellar syndrome made of a widening of the support polygon and dysmetria, an Expanded Disability Status Scale (EDSS) score of 5. Magnetic resonance imaging (MRI) in the brain has objectified bihemispheric hypersignals, predominantly periventricular, of the internal capsule, lenticular nucleus, thalamus, frontal and parietal lobe in axial section on flair sequences, **Figure 1-3**, with Three Barkhof Criteria and a Mac Donald Criterion (2010).

The biology showed a non-specific inflammatory syndrome with a sedimentation rate (ESR) at 150 mm/h and a C-Reactive Protein (CRP) at 40 mg/L. The patient received one gram of methylprednisolone daily for one week. The clinical evolution was favorable with an (EDSS) score of 3 at discharge.

3. Discussion

The spectrum of CNS demyelinating diseases is extreme elywide and it has a large varietý ofen tities pathohlogical. MS is the most common form frequent, which is classically defined by one evolution remitting where gradually [5]. MS is little described in black Africa, this rarity can be explained by the virtual non-existence of neurological infrastructures and by geo-climatic considerations. Epidemiological studies of black populations in the USA, Great Britain, the Carib-

bean and South Africa confirm this relative rarity of MS and suggest the existence of a racial and genetic factor [6].

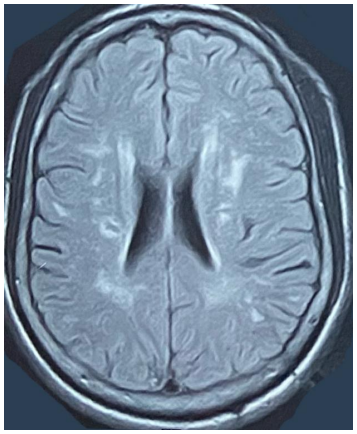

Figure 1. MRI encephal on in axial section and in FLAIR sequence showing periventricular and capsular hypersignals of the two hemispheres.

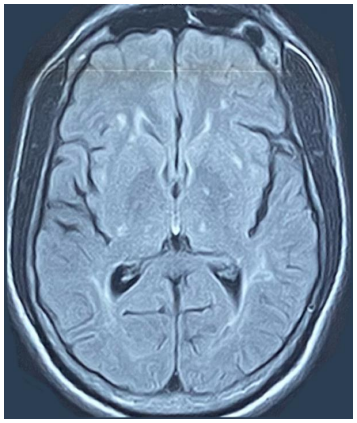

Figure 2. MRI encephalic in axial section and in FLAIR sequence showing hyper signals at the expense of the frontal lobe, the lenticular nucleus, the internal capsule, and the thalamus, of the two hemispheres.

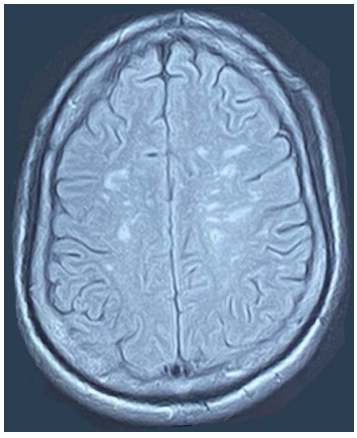

Figure 3. MRI, left and right encephalic in axial section and in FLAIR sequence showing hyper signals at the expense of the two frontal and parietal lobes.

The age of our patient is 31 years old. The first symptoms mMS most often appear between the ages of 20 and 40, with a sex ratio of one man to three women. This disease is thus the leading cause of severe non-traumatic disability in young adults [7]. Relapses are characterized by symptoms mes and neurological signs of acute installation and regressingohn more or less complete, they are the witness of a focal inflammation. In 85% of cases, the disease begins with manifestations, likely to lead noter sequelae, which give way to periods of remission, complete or not, between each of them [8], which is the case in our patient. However, we were unable to perform a lumbar puncture and the spinal MRI, the analysis of the LCS makes it possible to highlight an inflammatory reaction of the central nervous system and eliminate an infectious or neoplastic process. The presence of an increased immunoglobulin G (IgG) index, an oligoclonal IgG profile demonstrates spatial dissemination of the disease [9]. Concerning spinal cord MRI, it can also provide additional elements, it increases diagnostic sensitivity and specificity and also eliminates other differential diagnoses such as slow spinal cord compression, cervico-arthrotic myelopathy and narrow lumbar canal [10].

Current treatments for MS with marketing authorization (MA) include immunomodulatory treatments (interferons [INF] and glatiramer acetate (AG), an immunosuppressant (mitoxantrone) and a monoclonal antibody directed against an adhesion molecule (natalizumab). Other treatments are used, despite the lack of marketing authorization for lack of phase III clinical trials. These are mainly immunosuppressants (azathioprine, cyclophosphamide, mycophenolate mofetil) [11].

The treatment of relapses aims to reduce the duration and intensity of attacks, and consists of an intravenous (IV) infusion of corticosteroiddes: methylprednisolone (Solumédrol®) at 1 g per day for three to five days usually. Recently, studies have shown that the active ingredient administered orally (Médrol®) and at an identical dose could have the same efficiency [4]. Symptomatic treatments are still the basis of the management of MS, they are moreover the only ones available in most developing countries. Physiotherapy plays an important role in maintaining motor function [12].

For the prognosis, some studies highlight a rapid progression of late-onset MS, which could encourage early management in these patients, while taking into account the toxicity of certain drugs in subjects âges. On the therapeutic level, there is no argument in the literature justifying specific measures, both for the management of flare-ups and disease-modifying treatments, with the exception of the problem of intercurrent pathologies, which are more frequent in subjects hasgés [13]. The patient's clinical evolution was favorable under corticosteroid therapy with an EDSS score of 3 at discharge.

4. Conclusion

Epidemiological data on MS are limited in the tropics, and very little described

in the Republic of Guinea. The diagnosis is based on clinical and paraclinical arguments, corticosteroid therapy was beneficial for our patient. This case comes in addition to the isolated cases reported in the literature.

Conflicts of Interest

The authors declare no conflicts of interest.

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