Three Decades of Drift: The Misdiagnosis of Predominantly Neuropsychiatric Multiple Sclerosis

To the Editor: Neuropsychiatric disturbances, such as behavior, mood, and personality changes, are often recognized during multiple sclerosis (MS) evolution.[1] Psychiatric presentation and dominant cognitive MS is very rarely reported, and occurs in less than 1% of cases.[2] In this report, we describe a case of MS with predominant cognitive and psychiatric manifestations from the beginning, misdiagnosed as a pure psychiatric disorder for more than three decades.

Case Report

An African 52-year-old-woman, diagnosed and treated as having histrionic personality disorder and depression for 32 years, was sent for neurological consultation because of subacute gait disturbance. Neurological examination disclosed lower limb asymmetric ataxia, left-side hemihypoesthesia, and spasticity. Brain magnetic resonance showed lesions suggestive of MS (Figure 1). Oligoclonal bands were positive in the cerebrospinal fluid and visual evoked potential showed decreased latency in right eye. Review of her medical charts disclosed the presence of episodes of transient sensory and visual neurological symptoms (Figure 2). Depression and histrionic behavior appeared concomitantly with the first neurological symptoms, at the age of 21, and the subsequent episodes were followed by marked aggravation of the histrionic behavior. No objective or congruent findings on clinical examination and complementary exams (brain X-ray, brain CT, electromyography) were found or evaluated. With irregular adherence, she was receiving psychotherapy, and taking chlordiazepoxide and amitriptyline. Despite being evaluated on three occasions by neurologists and on one by an ophthalmologist, the diagnosis remained unchanged. She had progressive cognitive decline and manifested persistent histrionic behavior interfering with her professional activities during these 32 years of disease. The patient was diagnosed with MS. After starting interferon β−1a, she had two new attacks, one sensory and another motor. No changes were noted in psychiatric and cognitive status.

FIGURE 1. **[A]: Sagittal T_2-Weighted Brain MRI Showing Multiple Hyperintense Lesions in the Corpus Callosum and the "Dawson's Fingers" (blue arrows); [B]: Axial T_1-Weighted MRI Showing Hypointense Lesions, the "Black Holes" (red arrows)**

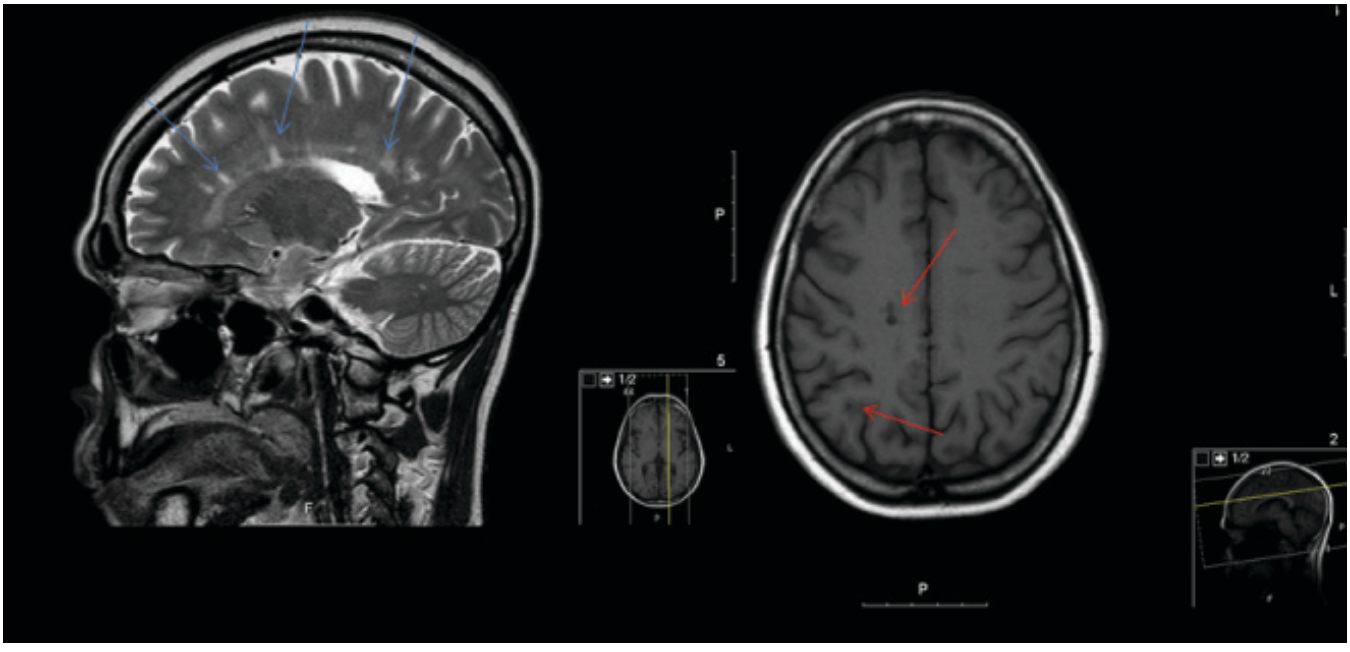
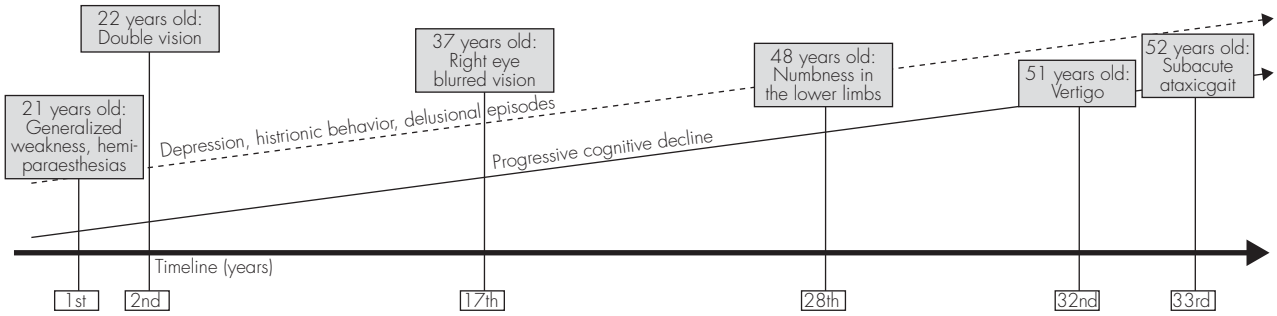


FIGURE 2. Clinical Evolution With Episodes of Transient Neurological Symptoms



Discussion

There are studies showing that neuropsychiatric symptoms in early MS are often neglected or misdiagnosed.[1,3] The predominant psychiatric manifestations and the absence of motor MS attacks during long follow-up contributed to the misdiagnosis, and, hence, delayed MS treatment. It is unknown whether early MS diagnosis in our case would have resulted in a different clinical evolution. However, approved disease-modifying drugs for MS can influence cognitive outcome, probably by reducing brain atrophy and lesion-load.[4] Neuropsychiatric presentation may constitute a unique clinical variant of MS, named "cortical multiple sclerosis" by some authors, usually associated with severe cognitive handicap.[5] The majority of patients described with predominantly or purely psychiatric MS do not show significant motor manifestations.[2] These patients will probably, at least initially, be managed by psychiatrists. Because MS is not a rare disease, its exclusion in young patients with psychiatric diagnosis who develop transient unexplained neurological symptoms or signs during follow-up seems reasonable and feasible in most centers. However, it may be a challenge to differentiate predominantly psychiatric MS with minor motor signs from an acute pure psychiatric disorder with transient soft neurological signs. In summary, this case is illustrative of the pitfalls and difficulties in the diagnosis of MS in patients presenting with early and predominantly neuropsychiatric manifestations.

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References

1. Diaz-Olavarrieta C, Cummings JL, Velazquez J, et al: Neuropsychiatric manifestations of multiple sclerosis. J Neuropsychiatry Clin Neurosci 1999; 11:51–57
2. Jongen PJ: Psychiatric onset of multiple sclerosis. J Neurol Sci 2006; 245:59Y62
3. Lyoo IK, Seol HY, Byun HS, et al: Unsuspected multiple sclerosis in patients with psychiatric disorders: a magnetic resonance imaging study. J Neuropsychiatry Clin Neurosci 1996; 8:54–59
4. Amato MP, Langdon D, Montalban X, et al: Treatment of cognitive impairment in multiple sclerosis: position paper. J Neurol 2013; 260:1452–1468
5. Zarei M, Chandran S, Compston A, et al: Cognitive presentation of multiple sclerosis: evidence for a cortical variant. J Neurol Neurosurg Psychiatry 2003; 74:872–877