Psychiatric Symptoms as the Initial Presentation of Multiple Sclerosis—Report of a Rare Case

Dear Sir,

Multiple Sclerosis (MS) is a chronic inflammatory, demyelinating disease of the central nervous system. It usually presents with limb weakness, visual disturbances, ataxia, bladder and bowel dysfunctions, and sensory deficits. Only rarely have psychiatric symptoms been reported as an initial manifestation of MS. Here, we report an 18-year-old girl who presented with behavioral changes suggestive of possible emotionally unstable personality traits associated with mixed affective state 18 months prior to the development of neurological symptoms of MS.

Case Description

Miss X, a temperamentally easy child, presented with gradual onset of behavioral changes of six months duration. She had a decline in academic performance, excessive and inappropriate interactions with boys, irritability, and two deliberate self-harm (DSH) attempts. Her parents were separated for the past five years, and she was staying with her mother. There was no significant medical, psychiatric, or family history. She reported no first-rank symptoms, deterioration in personal hygiene or biological functions, or other neurological or systemic symptoms.

On examination, she was argumentative, irritable, and less concerned about the DSH attempt and the consultation. No obvious cognitive or neurological...
deficits were noted. Differential diagnoses of Emotionally Unstable Personality Disorder and mixed affective episode were considered and treatment plans were discussed. However, she was lost to follow-up, and no treatment was received.

Excessive and inappropriate interactions with boys and irritability subsequently persisted. The mother had to relocate near their college as the management was reluctant to accommodate her in the hostel. After one year of the psychiatric consultation, she developed acute onset right-sided weakness and episodes of transient blurring of vision. In addition, there was a weakness of the right upper and lower limbs (Medical research council grade 3) with positive Lhermitte’s sign. Mental status examination revealed increased talk, euphoric mood, and intact cognitive functions.

MRI brain (T2 and FLAIR [fluid attenuated inversion recovery]) revealed ovoid hyper intense lesions in the periventricular and subcortical white matter, perpendicularly to the body of lateral ventricles (Dawson’s fingers, Figure 1), and irregularity of ependymal stripe on the undersurface of the corpus callosum. Serum testing for antinuclear antibodies, antibodies against double-stranded DNA, lupus anticoagulant, vitamin B12 levels, and thyroid antibodies, among other tests, were negative.

CSF study revealed oligoclonal bands with elevated IgG index. Probable MS was diagnosed based on the revised McDonald criteria.\(^1\) Inj. Methylprednisolone 1 gm daily was given for five days, followed by glatiramer acetate 20 mg per day, sodium valproate 1000 mg in divided dose, and psychotherapy sessions. Her neurological and psychiatric symptoms improved remarkably following the treatment of MS and the treatment with a mood stabilizer, and she is currently on regular follow-up.

**Discussion**

This case report emphasizes that though rare, mixed affective symptoms and possible emotionally unstable personality traits can be the initial manifestation of MS. The psychiatric aspects of the MS have gained attention since the last century, wherein intellectual and emotional disorders were noted to be frequent accompaniments during the course of the illness, with psychotic disorders observed infrequently.\(^2\)

In this case illustration, mixed affective symptoms, possible emotionally unstable personality traits, and academic decline were the initial manifestations, and more typical features of MS developed much later only. The psychiatric manifestations of MS can be grouped into mood and cognitive disorders. Depression, bipolar disease, and pseudobulbar affect are the common mood disorders, and irritability, apathy, disinhibition, and euphoria are the other symptoms. The etiology of psychiatric manifestations is not fully understood.\(^3\) The evidences suggest that psychiatric symptoms in MS are usually associated with higher lesion load, specifically in the temporal periventricular area, and also with the presence of cortical lesions. Thus, damage to the white matter, leading to disconnection of the cortical areas and the basal ganglia, could be the underlying basis of the psychiatric symptoms.\(^4\) This patient had multiple periventricular and subcortical lesions, including in the frontal and temporal regions. The orbitofrontal cortex is considered to be responsible for socially appropriate behavior and empathy, that is, impulsivity, liability, and personality changes. Disruption of the anterior cingulate cortex-orbitofrontal brain circuitry is thought to explain the above symptoms in this patient.\(^5\)

Cognitive deficits, common in MS, often manifested early and occasionally before the onset of physical symptoms. Information processing, working memory and attention are affected commonly.\(^6\) Cognitive deficits may not be clinically observable early in the course, and the “functional reorganization” could explain this. This is the brain’s compensatory mechanism wherein the brain’s connectivity is altered to limit the expression of pathology. This would partly explain the disparity between the observed lesions and the intact cognitive functions in our patient.\(^7\)

**Conclusion**

Our case illustrates that although rare, mixed affective symptoms and possible emotionally unstable personality traits can be a forerunner of other MS symptoms. Hence, MS should be considered in the differential diagnosis of young patients with mood symptoms and abnormal personality traits.

**Declaration of Conflicting Interests**

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

**Funding**

The authors received no financial support for the research, authorship, and/or publication of this article.

**ORCID iDs**

Roy Abraham Kallivayalil \(^8\) https://orcid.org/0000-0002-6946-911X

Sheena Varughese \(^8\) https://orcid.org/0000-0002-6946-911X

**Address for correspondence:**

Roy Abraham Kallivayalil, Dept. of Psychiatry, Pushpagiri Institute of Medical Sciences and Research Centre, Thiruvalla, Kerala, India. *Dept. of Neurology, Pushpagiri Institute of Medical Sciences and Research Centre, Thiruvalla, Kerala, India.

Sheena Varughese, Roy Abraham Kallivayalil and Reji Thomas

Sheena Varughese\(^*\), Roy Abraham Kallivayalil\(^*\) and Reji Thomas\(^*\)

1. Haussleiter IS, Brüne M, and Juckel G. Psychopathology in multiple sclerosis:

---

**FIGURE 1.**

Cranial MRI Showing Sagittal T2-Weighted FLAIR Views of the Demyelinating Lesions in the Juxtacortical Regions

---

**References**

1. Haussleiter IS, Brüne M, and Juckel G. Psychopathology in multiple sclerosis:
Diagnosis, prevalence and treatment. Ther Adv in Neurol Disord 2009 Jan; 2(1): 13–29.

2. Chalah MA and Ayache SS. Psychiatric event in multiple sclerosis: Could it be the tip of the iceberg? Braz J Psychiatry 2017 Dec; 39(4): 365–368.

3. Polman CH, Reingold SC, Banwell B, et al. Diagnostic criteria for multiple sclerosis: 2010 revisions to the McDonald criteria. Ann of Neurol 2011 Feb; 69(2): 292–302.

4. Sullivan MJ, Weinshenker B, Mikhail S, et al. Depression before and after diagnosis of multiple sclerosis. Mult Scler J 1995 Jun; 1(2): 104–108.

5. Feinstein A, Du Boulay G, and Ron MA. Psychotic illness in multiple sclerosis. The Br J Psychiatry 1992 Nov 1; 161(5): 680–685.

6. Tekin S and Cummings JL. Frontal–subcortical neuronal circuits and clinical neuropsychiatry: An update. J Psychosom Res 2002 Aug 1; 53(2): 647–654.

7. Rovaris M, Comi G, and Filippi M. MRI markers of destructive pathology in multiple sclerosis-related cognitive dysfunction. J Neurol Sci 2006 Jun 15; 245(1–2): 111–116.

8. Schoonheim MM, Meijer KA, and Geurts JJ. Network collapse and cognitive impairment in multiple sclerosis. Front Neurol 2015 Apr 14; 6: 82.

**HOW TO CITE THIS ARTICLE:** Varughese S, Kallivayalil RA and Thomas R. Psychiatric Symptoms as the Initial Presentation of Multiple Sclerosis—Report of a Rare Case. Indian J Psychol Med. 2022;44(5): 531–533.

**Predatory Awards: The New Threat in the Block**

The academic field is well aware of the presence of dubious conferences and “pay and publish trash” journals.1,2 Though it is considered detrimental to the prospects of progress in science, we have gained insights into the complicated dynamics that sustain this apparent shady mechanism.3 Various steps have been taken to control such journals’ spread, but most have been in vain.4 There has been an advent of another entity in such a scenario, popularly referred to as “predatory awards.” No research exists about the predatory awards, but their existence is acknowledged by comments posted on networking websites and blogs by researchers. The current letter to the editor was conceptualized to gather evidence regarding them using the authors’ own experience and literature review on the topic.

The mode of functioning of predatory awards is very similar to that of other predatory entities. Some characteristics of these awards may help researchers identify them as predatory (Table 1). It is important to note here that the idea behind giving this list is not that any award fulfilling any of the mentioned characteristics is a predatory award. However, the more criteria an award fulfills, the more skeptical and suspicious the researcher should become.

The major issues with these awards are as follows.

1. The disproportionately high number of awardees, by promoting mediocrity, defeats the whole purpose of instituting awards to encourage brilliance.

2. Most of these awards are given in vast fields and not restricted to a particular branch of medicine. This has an inherent problem associated with it. Usually, an award committee is constituted of a certain proportion of experts from the said field. Many of these awards do not have a declared judging committee, or the committee is formed by persons without adequate experience, knowledge, or credibility.

3. The judging process is often shrouded in mystery, as it usually does not involve any floor presentation. These awards often do not have a declared