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Case Report

Rare presentation of hallucinations in cerebellar multisystem atrophy

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ABSTRACT

Psychotic symptoms are seen in patients with medical disorders. Multisystem atrophy (MSA) is a neurodegenerative disorder which is rapidly progressive. It can occur in two forms; one with parkinsonian features (MSA-P) and other with cerebellar ataxia (MSA-C). The prevalence of this disorder is about 2-5 per 1,00,000 individuals. Neuropsychiatric symptoms like depression, apathy and anxiety have been reported frequently in these patients but there are isolated reports describing hallucinations in patients with MSA. It is mostly seen in patients with parkinsonian type of MSA rather than cerebellar type of MSA. Here we report a rare case of psychotic disorder in a patient with cerebellar type of multi-system atrophy.

Keywords: Psychosis, Hallucination, Multisystem atrophy, Cerebellar

INTRODUCTION

Neuropsychiatric symptoms are commonly seen during progression of neurodegenerative disorders. It adds to poor quality of life and increases the caregiver burden. Multisystem atrophy is a sporadic and rapidly progressive neurodegenerative disorder which can occur in two forms-Parkinson's type and cerebellar type. The prevalence of MSA is reported as 1.86 to 4.9 cases per 100,000 individuals.[1] There are few reports describing about the affective symptoms in patients with MSA but the presence of psychotic symptom is reported infrequently. The present case report focuses on the psychotic symptom in patient with cerebellar multisystem atrophy.

CASE REPORT

A 63-year-old lady was referred from neurology as they noted the patient to be talking to self. she was high school educated, married and premorbidly well-adjusted premorbid personality, with no significant past and family history.

Patient was admitted under neurology with complaints of weakness of limbs and difficulty in walking for 5 months. Her clinical examination and neurological examination were: Cranial nerves-bilateral lateral rectus restriction, sensory system-normal, motor system-normal, reflexes-normal, cerebellar signs-ataxic gait, positive romberg's sign, impaired tandem walking.

She was investigated and the report were as follows: serum B12-170.6, vitamin D-18.79, Other blood investigations were within normal limits, MRI brain showed generalized brain atrophic changes as evidenced by mild dilatation of ventricular system and cortical sulci and subarachnoid spaces (Figure 1).

A diagnosis of multisystem atrophy-cerebellar subtype was made and discharged on multivitamin supplementation.

On mental status examination, she was found to be a conscious, oriented with normal psychomotor activity and normal talk with intact cognitive functions (MMSE-24/30). She reported that she could hear voices of two of

her neighbours threatening to harm her which was heard when she was awake for about 5 months suggestive of a 2nd person auditory hallucination. Her mood was fearful and she had and affect was anxious.

Final diagnosis was organic hallucinosis (F06.0) and multisystem atrophy-cerebellar subtype.

For the management of the diagnosis patient was started on olanzapine and is on regular follow up after 2 weeks revealed significant improvement. She has been maintained on 5 mg of olanzapine and insists the family members for regular follow up.

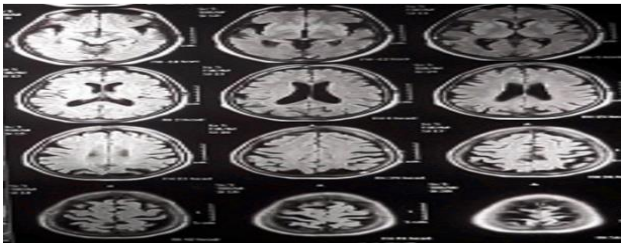

Figure 1: MRI brain showing generalized atrophic changes.

DISCUSSION

MSA is an adult-onset, sporadic, rapidly progressive, multisystem, neurodegenerative fatal disease of undetermined etiology, characterized clinically by varying severity of parkinsonian features; cerebellar, autonomic,urogenital dyfunction and corticospinal disorders.[2] American autonomic society and American academy of neurology in 2007 categorised it as MSA-P and MSA-C to describe one with predominant parkinsonism and cerebellar features respectively. The prevalence of parkinsonian subtype is commonly reported in Asian population.

Positive psychotic symptoms which are usually seen in neurodegenerative disorders are rarely reported in patients with cerebellar disease. Usually visual hallucinations are reported in patients with organic causes. Previous case report describes paranoid ideas and visual hallucinations in patients with neurological disorders involving cerebellum. Auditory hallucinations are rarely reported.[3,4] Given that there was no history of other possible medication that could trigger psychosis, we believe that the psychotic feature reported in our index patient is a part of multisystem atrophy. There have been isolated case reports that describe hallucinatory experiences in patients with MSA. There is a need for more prospective large-scale studies.

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