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Case Report

An Interesting Case of Chronic Isolated Apathetic Syndrome

Sandhya Manorenj[1]*, Rindha V Rao[1] and Reshma Sultana Shaik[2]

[1] *Department of Neurology, Princess Esra Hospital, Deccan College of Medical Sciences, Hyderabad, India.*

[2] *Department of Neurology, Nizams Institute of Medical Sciences, Hyderabad, India.*

***Corresponding Author:** Prof. Sandhya Manorenj, Department of Neurology, Princess Esra Hospital, Deccan College of Medical Sciences, Hyderabad, India.*

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Abstract

An apathy syndrome is defined as a syndrome of primary motivational loss, that is, loss of motivation not attributable to emotional distress, intellectual impairment, or a diminished level of consciousness. The main anatomical correlate of apathy is the medial frontal lobe. Here we report a case of a 49-year-old male who presented with a history of lack of interest for the past 10 months without any other neurological symptoms. He was diagnosed with depression and was receiving treatment from multiple psychiatrists. In view of his persistent symptoms, he approached us and was evaluated. Examination showed anosmia with apathy that paved the way to the orbitofrontal location of the lesion. Psychiatric symptoms may be an unusual presentation of a space-occupying lesion of brain. Strong suspicion and imaging the brain is indicated in all cases to prevent the unnecessary use of psychiatric medicines and their complications.

***Keywords:** Apathy, depression, meningioma, anosmia*

Introduction

Psychiatric symptoms can be the initial presenting symptoms associated with brain tumors. They manifest in many ways, encompassing varied psychiatric symptoms that include apathy, depression, mania, anxiety, hallucinations, and abulia. Patients usually approach to psychiatrist with these symptoms and are put on continuous medication. Differentiating between a primary psychiatric illness and psychiatric symptoms of brain tumour can be extremely difficult for patients with a history of mental illness. Here, we report a case of chronic apathy syndrome managed as depression.

Case Report

A 49-year-old male with no co-morbidities presented with a history of lack of interest in daily activities for the past ten months. The patient was apparently terminated from the job during the pandemic, and the family members attributed his symptoms to the same and took him to a psychiatrist, where he was diagnosed to have depressive disorder and was started on medications for the same. However, despite the treatment, symptoms of fatigue and lethargy persisted, for which the patient consulted multiple psychiatrists. The patient was brought to us in view of persisting symptoms and no improvement with psychiatric medications. However, there was no history of headaches, seizures, urinary incontinence, loss of consciousness, or any other systemic symptoms.

On the basis of the above complaints, a detailed neurological examination, including a neuropsychological assessment, was done. The patient performed well on the Montreal cognitive assessment (MOCA: 29/30) and the frontal assessment battery (FAB: 17/18). Olfactory testing using rose, coffee, and clove confirmed anosmia. The rest of the neurological examination, including the fundus, was normal.

Routine blood investigations, including thyroid profiles, were normal. In view of his persisting apathy and anosmia, an MRI brain with contrast was advised, which revealed a well-defined bifrontal extra-axial space-occupying lesion invading into the floor of the anterior cranial fossa, showing restriction on DWI with a sunburst appearance with diffuse and homogenous enhancement on contrast [Figure 1]. MR spectroscopy showed an elevated choline peak and a markedly elevated lactate peak [Figure 2]. Imaging features were suggestive of an atypical meningioma arising from the olfactory groove. The patient was referred to a neurosurgeon for further management. He underwent a craniotomy and the evacuation of meningioma. Relatives found that he got interested in doing activities of daily living after 3 months of surgery, but his anosmia did not improve.

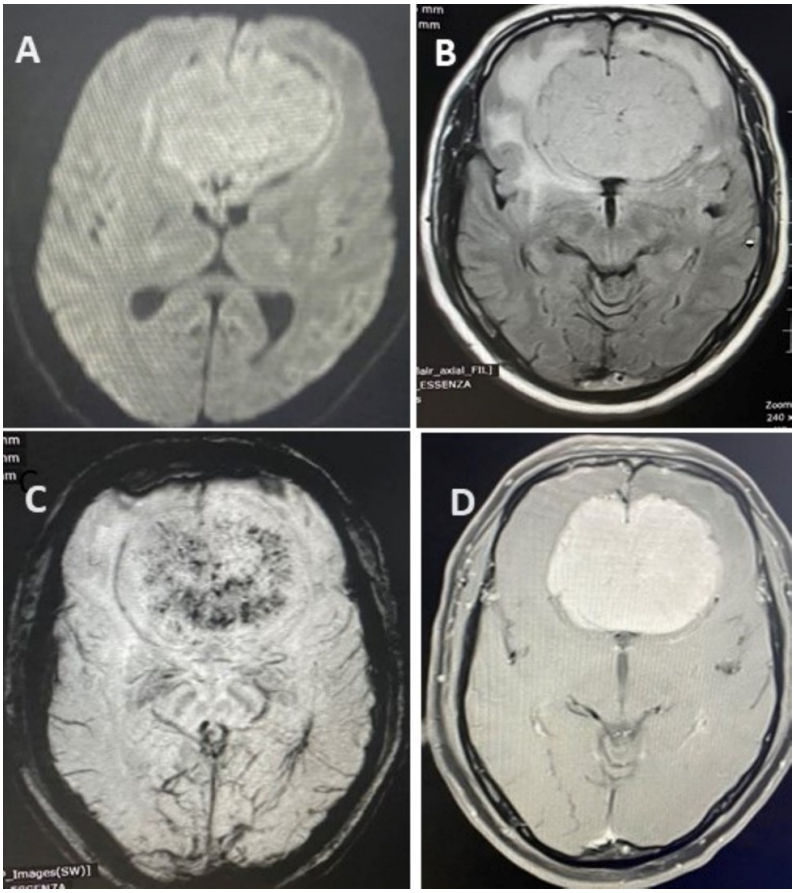

Figure 1: *A well-defined bifrontal extra-axial space-occupying lesion invading into the floor of the anterior cranial fossa, showing restriction on DWI (A) and T2 flair sequence (B) with a sunburst appearance (A,B), blooming on SW sequence (C) with diffuse and homogenous enhancement on contrast (D) consistent with olfactory groove meningioma.*

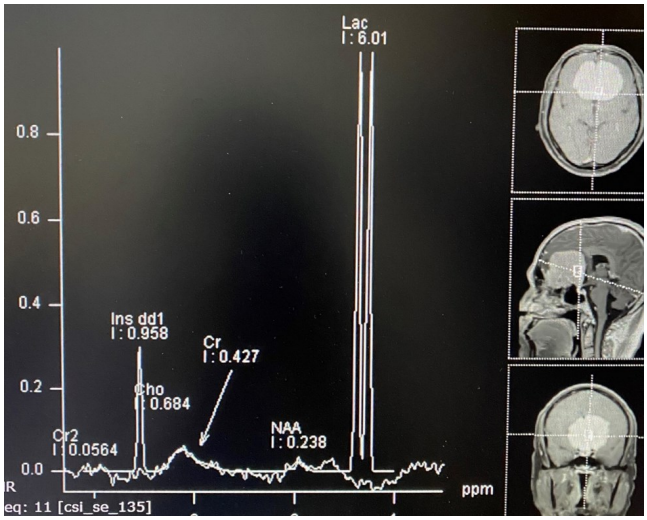

Figure 2: *MR spectroscopy showed an elevated choline peak and a markedly elevated lactate peak consistent with tumour.*

Discussion

Tumours of the central nervous system represent around 10% of all neoplasms. [1] The most common primary brain are gliomas and meningiomas. Tumours of the brain can present with a myriad of symptoms. Psychiatric symptoms may be the only manifestation of certain tumours like meningioma's or gliomas, especially in the fifth decade of life. Thus, it becomes crucial for clinicians to suspect intracranial growth in patients with new-onset psychiatric symptoms. An early diagnosis helps with appropriate management. Available literature shows very few case reports. [1, 2, 3] Studies have shown that around 70% of patients with brain tumours have psychiatric symptoms, and around 20% of patients present initially with psychiatric rather than neurological symptoms. [4] The psychiatric manifestations often include depression, mania, psychosis, anxiety, apathy, and cognitive or personality changes. [2]. Patients with psychiatric symptoms and underlying undiagnosed brain tumours are often referred initially to psychiatrists. [4]An apathy syndrome is defined as a syndrome of primary motivational loss, that is, loss of motivation not attributable to emotional distress, intellectual impairment, or a diminished level of consciousness. [5] The main anatomical correlate of apathy is the medial frontal lobe. In our case olfactory groove meningioma involved medial frontal lobe leading to apathy syndrome.

Apathy syndrome has features that look similar to depression. There are certain symptoms that occur frequently in either apathy and depression syndrome that helps one to clue to the diagnosis [Table 1]. [6]

Symptoms	Apathy	Depression
Fatigue	absent	frequent
Decreased positive affect	absent	frequent
Psychomotor agitation/retardation	absent	frequent
Suicidal ideation	absent	frequent
Diminished goal directed cognitive activity	**frequent**	absent
Passive /complaint behaviour	**frequent**	absent
anxiety	absent	frequent
rumination	absent	frequent
Poor sleep	absent	frequent
Pessimistic	absent	frequent
Avoidant of socialization	absent	frequent
Loss of appetite	absent	frequent
Weight loss	absent	frequent
Decreased pleasure in response to social activities	absent	frequent
Sadness	absent	frequent
Anhedonia (inability to feel pressure)	absent	frequent

Despite the dissimilarity, apathy and depression pose crucial challenges to diagnose for the Clinician, and burden to their families, and caregivers.

Conclusion

Our case illustrates the need for prompt and detailed assessment, including brain imaging studies, when a patient presents with atypical psychiatric symptoms. A high index of clinical suspicion for intracranial neoplasm is warranted in the following subset of patients presenting with psychiatric symptoms: late adulthood, elderly-onset psychiatric manifestations, atypical symptoms, and no or inadequate response to treatment. Psychiatric symptoms may undoubtedly be an unusual manifestation of an intracranial neoplasm, which should never be missed.

Conflict of Interest

The authors declare no conflict of interest.

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