

# Correspondence: Post-stroke Psychosis Following Lesions in the Basal Ganglia

SHWETA KEDIA<sup>1</sup>, SARVESH GOYAL<sup>2</sup>**Keywords:** Basal ganglia stroke, Hemiparesis, Psychiatric illnesses

Dear Editor,

We read with great interest the case report on "Post-stroke Psychosis Following Lesions in the Basal Ganglia" Srivastava S [1]. It described the likelihood of psychiatric symptoms occurring in patients following lesions in the basal ganglia. It also provides preliminary evidence that many psychiatric illnesses, which are thought to be inorganic in nature, can have some organic basis. Recognising it at earlier stages can guide the treating physician to the right approach, leading to a decrease in morbidity and mortality in some cases.

We would like to raise some relevant questions about the case reports. In case report, the time duration since when the psychiatric symptoms arose has not been mentioned. It is important to know whether the symptoms started immediately after the onset of right-sided paresis or 3-4 weeks after the onset. Since hemiparesis onset should coincide with the development of infarct, the knowledge of the time of onset of psychiatric symptoms is important. If psychiatric symptoms onset coincides with the onset of hemiparesis, they can be explained by the infarct. If their onset is 3-4 weeks after the onset of hemiparesis, it then indicates a different pathophysiological relationship which can be secondary to psychological acceptance of development of hemiparesis, late-onset dysfunction of neuronal circuitry associated with the 1<sup>st</sup> infarct, or development of a new infarct or new lesions.

In case report, Magnetic Resonance Imaging (MRI) brain findings have been reported as "lacunar infarct in bilateral basal ganglia, internal capsule, and thalamus. Ischaemic lacunae were also noted in bilateral basal ganglia, internal capsule, thalamus, and pons. The ventricular system was found to be dilated out of proportion

to the atrophy". The timing of MRI brain has not been mentioned. If the MRI Brain was done during the patient's visit to the Psychiatry Department, then it would have been desirable if the authors could have compared it with the imaging [Non Contrast Computed Tomography (NCCT) head/MRI brain) done at the primary visit of the patient to the Medicine Department on one month ago, since it would have depicted whether there was any evolution of lesion or development of new infarct or lesions. The present comparison could have shed new light on the pathophysiology and possible explanations of psychiatry symptoms.

Similarly, the temporal relationship of stroke, psychiatric symptoms, and imaging has not been mentioned clearly in the second case report as well. Also, in this, the characteristics of the stroke, whether the deficits were associated or not primarily, and the symptomatology of the stroke in the primary setting have not been explained.

We would like to praise the authors for their efforts in bringing out these case reports. We can conclude that neurosurgeons, physicians, neurologists, and psychiatrists should have a high level of suspicion for basal ganglia-related pathophysiology in patients with risk factors, having psychiatric symptoms in the postoperative period, stroke care facility, Outpatient Department (OPD) visits, and Inpatient Department (IPD) facilities, and do the proper evaluation in such cases to be able to do a timely intervention and prevent additional morbidity and mortality.

## REFERENCES

- [1] Srivastava S, Agarwal MP, Gautam A. Post stroke psychosis following lesions in basal ganglion. J Clin Diagn Res. 2017;11(5):VD01-VD02.

### PARTICULARS OF CONTRIBUTORS:

1. Additional Professor, Department of Neurosurgery, AIIMS, New Delhi, India.
2. Senior Resident, Department of Neurosurgery, AIIMS, New Delhi, India.

### NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Shweta Kedia,  
F-28, Ansari Nagar West, AIIMS West Campus, New Delhi-110016, India.  
E-mail: drshwetakedia@gmail.com

### AUTHOR DECLARATION:

- Financial or Other Competing Interests: None
- Was informed consent obtained from the subjects involved in the study? NA
- For any images presented appropriate consent has been obtained from the subjects. NA

### PLAGIARISM CHECKING METHODS:

- Plagiarism X-checker: May 05, 2021
- Manual Googling: Jun 22, 2021
- iThenticate Software: 15 Feb, 2024 (8%)

### ETYMOLOGY: Author Origin

EMENDATIONS: 4

Date of Submission: May 04, 2021

Date of Peer Review: Jul 28, 2021

Date of Acceptance: Feb 01, 2023

Date of Publishing: Mar 01, 2024