

# BIPOLAR DISORDER OR POST-STROKE MANIA- A DIAGNOSTIC CHALLENGE IN A STROKE SURVIVOR

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## SUMMARY

Organic mood disorders, arising from medical conditions, can manifest with a range of symptoms. The prevalence of disinhibited sexual behavior following stroke has been estimated to be 10%-40%. This report explores the interplay between organic mood disorder & post-stroke sexual disturbances. A 42-year-old male patient, following an ischemic stroke, exhibited an increased sexual drive, masturbation in front of children and inappropriate sexual behaviors towards his wife, suspiciousness towards wife's fidelity and overfamiliarity towards strangers without other manic symptoms after about 10 days. He was diagnosed with organic mood disorder, was admitted. MRI brain suggested temporal correlation, patient was started on symptomatic management.

## BACKGROUND

Organic mood disorders arising from medical conditions present a unique and challenging diagnostic landscape, often requiring a nuanced understanding of neurobiology and psychiatric manifestations. One such manifestation is post-stroke mania, a condition characterized by an abnormal and persistently elevated mood, energy, and increased goal-directed activity following a stroke. This case report examines the intriguing scenario of a 42-year-old male patient who exhibited symptoms consistent with post-stroke mania after experiencing an ischemic stroke

## CASE PRESENTATION

A man in his fourth decade of life, married for the past 18 years, resides with his wife, son, and mother. His educational status is at the primary school level, and he belongs to the middle socioeconomic stratum according to the modified Kuppusamy scale. He has a medical history of type 2 diabetes mellitus and systemic hypertension spanning 10 years, for which he has been consistently medicated. Notably, he has a history of triple vessel disease that led to a coronary artery bypass graft procedure, following which he has been maintained on blood thinners for the last 4 years.

Sudden onset of weakness in his left upper and lower limbs, accompanied by drooling of saliva on the left side and deviation to the opposite side, prompted immediate medical attention. Upon arrival at the hospital, the patient was conscious, oriented, and exhibited a Glasgow Coma Scale (GCS) score of 15/15. He presented with decreased muscle tone and power in the left upper and lower limbs. Diagnostic evaluation revealed a right-sided hemorrhagic infarct involving the right gangliocapsular region, right sublentiform nucleus, right corona radiata, right centrum ovale, and right thalamus, as evidenced by MRI findings.

The initial treatment regimen included T.Atorvastatin 40 mg, T.Clopidogrel + Aspirin (75/75), T.Carvedilol 3.125 mg, and T.Nicoumalone 2 mg. Additionally, the patient received 5000 units of inj Heparin and oral hypoglycemic agents (OHA's). Over the course of 10 days, the patient exhibited signs of recovery and was subsequently discharged. Approximately two weeks following his discharge, the patient began displaying disinhibited sexual behavior even in the presence of children. He exhibited an increased sexual desire, demonstrated overfamiliarity towards strangers, engaged in excessive talking, and experienced disturbances in sleep. These symptoms had a gradual and insidious onset and displayed progressive nature. As the symptoms persisted for over one and a half months, the patient was subsequently brought to a private hospital for further evaluation and management.

This case illustrates a complex scenario involving a middle-aged male with a history of diabetes, hypertension, and prior coronary artery disease, who experienced a sudden hemorrhagic infarct. Despite initial recovery, he developed distinct behavioral changes, characterized by disinhibited sexual behaviors, overfamiliarity, increased sexual desire, excessive talking, and sleep disturbances. The temporal relationship between the stroke and subsequent neuropsychiatric symptoms underscores the intricate interplay between neurological events and behavioral manifestations. Written informed consent was obtained from the patient for the publication of this case report.

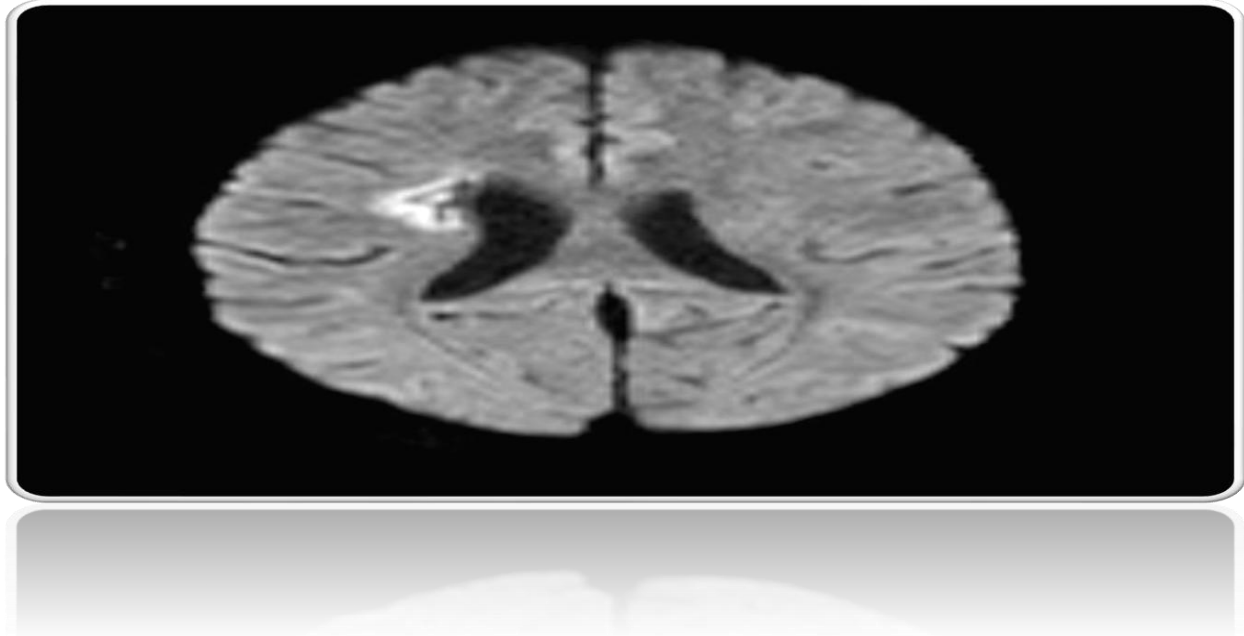
## INVESTIGATIONS

MRI brain plain-

Acute ischaemic infarct in Right gangliocapsular region ( MCA territory)

Subacute infarct in right thalamus

Chronic infarct in left centrum semi ovale and left gangliocapsular region



Serum TSH 8.509 mIU/ml

HbA1c-9.4%

PT result: 15.4 sec

INR result-1.35 sec

## DIFFERENTIAL DIAGNOSIS

**F06.30 Organic manic disorder**

F06.31 Organic bipolar affective disorder

## TREATMENT If relevant

Patient was treated with

T.Atorvastatin 40mg 0-0-1,T.Clopidogrel 75/74 0-1-0,T.Carvedilol 3.125 mg ½-0-½,T.Acitrom (nicoumalone) 2mg 0-0-1-0

Inj.Heparin 5000 u iv q6h,T.Metformin 500 mg 1-0-1,T.Glimepride 1mg 1-0-1,T.vildagliptin 100 mg 0-1-0,Syp Duphalac 30 ml 0-0-1,T.Dapagliflozin 10mg 0-1-0

Patient was symptomatically better during hospital stay and hence was discharged after being admitted for a period of 8 days

Power of bilateral upper and lower limb was 5/5 and patient had no difficulty in walking

Following admission,

Patient was started on T.Sodium Valproate 1000mg,T.Quetiapine 25MG and T.Lorazepam 2mg  
Following which patient had persistent sleep disturbances,hence T.Quetiapine was uptitrated o 50 mg  
Following improvement in symptoms and improvement in YMRS scale to 19, patient was planned for discharge

### OUTCOME AND FOLLOW-UP

During the further follow up,patient presented with complaints of he matures with raised INR values (10.2) and T.Nicoumalone was stopped following this episode  
T.sodium valproate was stopped and patient was maintained with T.Quetiapine 50 mg and T.Lorazpeam 2mg,and patient was shifted to medicine department for further follow up

### DISCUSSION

Mania is reported as an unusual manifestation after CVA

It's frequency is <1% in comparison with depression and other mood disorders Mania is a state of elevated arousal,affect and energy level In 1978,Krauthammer and kelman introduced the concept of SECONDARY MANIA-refers to the onset of symptoms that meet the diagnostic criteria for mania produced by neurological/metabolic/toxic disorder Lesions of post stroke mania can be located in the thalamus,caudate nucleus and temporal,parietal and frontal lobes,and is more common to have right sided lesions Although no guidelines for treatment t exist,literature suggests treatment with second generation antipsychotics or anticonvulsant mood stabilisers is affective in POST STROKE MANIA

### LEARNING POINTS/TAKE HOME MESSAGES

1. Post-Stroke Mania:Post-stroke mania is a neuropsychiatric condition characterized by manic symptoms, such as elevated mood and increased energy, which can develop after a stroke due to brain circuit disruptions.
2. Treatment: Treatment typically involves a combination of mood stabilizers and antipsychotic medications, along with psychotherapy. An interdisciplinary approach with neurologists and psychiatrists is crucial for effective management.
3. Prognosis: The prognosis varies but is influenced by factors like stroke severity and treatment timeliness. Early diagnosis, proper care, and addressing underlying medical conditions can improve long-term outcomes for individuals with post-stroke mania.

### REFERENCES

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