



### Introduction

At least 30% of stroke patients experience some degree of neuropsychiatric manifestations following a stroke. Unfortunately, this portends a poor prognosis. Neuropsychiatric manifestations may be immediate or appear several weeks to months later. Patients with identified cases frequently do not have prior psychiatric illness. The mortality risk is relatively 51% higher for this demography of patients compared to stroke patients without psychiatric symptoms.

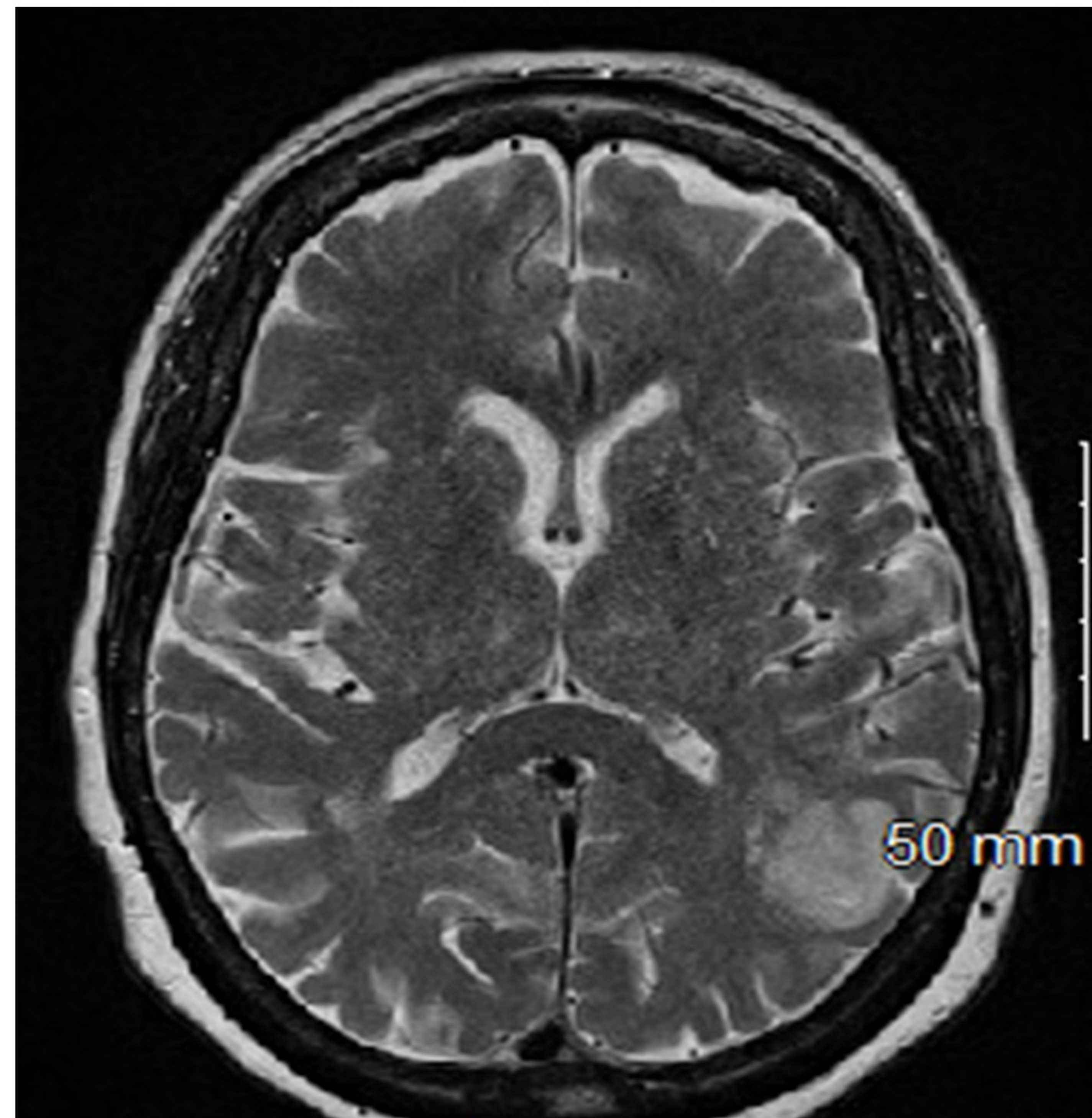
### Case Description

A 77-year-old female with a remote history of right CVA, non-insulin dependent diabetes mellitus, and hypertension presented to our ED with acute onset of confusion. The patient woke up unable to recognize family members names and was not making sense with any of her words. On exam, vital signs were stable. NIHSS was 4 and VAN was negative. Stat CT head was negative. She was alert but disoriented, with blunted affect. She had clear but impaired speech comprehension and repetition. She had word finding difficulty. She was unable to recall any events or complete simple math calculations. She had poor insight, judgement and impulse control. She had normal motor strength, sensation and gait. During the first two days of hospital admission, the patient became very agitated and demonstrated a fixed delusion about owing money. Despite conservative measures, she required multiple doses of antipsychotics along with physical restraints. After around 3 days, patient was finally stable enough for an MRI which revealed an acute ischemic left temporal parietal lobe stroke. Echocardiogram was normal. The patient was treated with DAPT (aspirin and clopidogrel) and statin. Given her psychotic features, psychiatry evaluated and suggested outpatient management. Fixed delusions and paranoia improved during hospitalization, however, encephalopathy and confusion persisted. She was transferred to a skilled facility for physical therapy.

### Figures and Labs

Parameters	Value	Reference range
Cholesterol	236	0-200 mg/dL
LDL Cholesterol	151	< 100 mg/dL
HDL Cholesterol	83	40-59 mg/dL
Triglycerides	51	0-149 mg/dL
Hemoglobin	10.1	11.2-15.7 mg/dL
Glycated Hemoglobin	6.2	0-5.6%
TSH	2.83	0.358-3.740uIU/mL

Labs on presentation



Acute left temporal parietal lobe infarct with vasogenic edema

### Discussion/Conclusion

- Poststroke psychosis is marked by hallucinations, delusions, incoherent speech, catatonia or abnormal motor activity. The involvement of a largely right-sided cortical lesion has been observed.
- Presentation may be delayed (6 months to a year) or acute (as part of the initial presentation, as in our case)
- Hallucinations and delusions may resolve after a period or become persistent despite appropriate rehabilitation.
- Unfortunately, there are no specific approved medications for management, hence, patients are often managed with antipsychotics.
- Antipsychotics, despite being the mainstay of therapy, have unfortunately shown poor results in clinical settings and also increase the risk of subsequent stroke
- The limited effectiveness of current treatments also suggests that the process of post stroke psychosis may differ from that of primary psychosis.
- Clinicians should have a multidisciplinary approach to these patients with early involvement of Psychiatry, Neurology, physical therapy, occupational therapy, and case management services.

### References

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2. Kumral E, Oztürk O. Delusional state following acute stroke. *Neurology*. 2004;62(1):110-113. doi:10.1212/wnl.62.1.110
3. Stangeland H, Orgeta V, Bell V. Poststroke psychosis: a systematic review. *J Neurol Neurosurg Psychiatry*. 2018;89(8):879–885. doi: 10.1136/jnnp-2017-317327.