

# An Older Man With Anti-NMDA Receptor Encephalitis: Case Report and Review of Literature



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## Background

- Anti-NMDA receptor encephalitis is characterized by a rapid progression of psychiatric and cognitive symptoms with associated motor and autonomic dysfunction.
- Many clinical manifestations overlap with primary psychiatric disorders leading to misdiagnosis and delay of treatment
- Females are affected at a ratio of 8:2, and only 5% occur in those aged 45 years or older
- Presented is a case of a 76-year-old-male with acute deterioration of mental status, catatonia, and psychiatric symptoms who was ultimately diagnosed with anti-NMDAR encephalitis.

## Case Details

- 76-year-old man with no past psychiatric hx and PMHx significant only for prostate cancer presents with AMS with associated catatonic symptoms.
- 2-3 weeks earlier presented to outside hospital with acute onset of similar symptoms. Diagnosed with possible dementia and myasthenia gravis and discharged to rehab facility.
- Prior to onset of illness, pt was a high functioning adult who had been independent, active, and performed his own ADLs and IADLs with no prior history of cognitive dysfunction.
- Acute decline prompted a wide differential including sepsis, stroke, toxins, prion disease, and encephalitis.
- Early MRI findings were normal, while vEEG indicated encephalopathy.
- CSF analysis was positive for anti-NMDA receptor antibodies.
- 5-day course of IVIG therapy in conjunction with high-dose prednisone was initiated.
- There was significant improvement in mental status and eventually pt returned to baseline.

NMDA-R Ab IF Titer Assay, CSF

Positive, 1:32

Appearance  
Color  
Xanthochromia  
RBC  
WBC  
Lymphocytes  
Monocytes

Clear  
Colorless  
-  
6  
13  
97  
3

vEEG

Mild diffuse cerebral dysfunction, consistent with a nonspecific encephalopathy

## Discussion

Anti-NMDA Receptor encephalitis is an immune mediated syndrome presenting with a variety of symptoms with most cases being reported in younger adult females and associated with ovarian teratomas. However this syndrome can be seen in older patients such as this case and has a complicated presentation making early diagnosis difficult. There should be early suspicion for such differential in an encephalopathic patient such as this patient, which would allow for a timely identification and initiation of treatment for improved outcomes. Highly recommend inclusion of anti-NMDA receptor encephalitis within the differentials of appropriate patients regardless of age or sex who present with these reported and expanded symptoms. Appropriate and timely CSF analysis of antibodies should be among initial workup allowing for best possible care.

## Clinical Features in Psychiatric Presentations of anti-NMDA Receptor Encephalitis with Respective Frequency

**Behavioral/Psychiatric Symptoms:** Mood Symptoms, delusions or bizarre thought content, sensory disturbances, self-injurious behaviors, behaviors odd or uncharacteristic of individual **Frequency: 100.0%**

**Cognitive Dysfunction:** Disorientation/confusion, memory impairment, reduced arousal, impaired language/aphasia, impaired executive function, inattention **Frequency 79.1%**

**Motor Dysfunction:** Rigidity/increased muscle tone, Parkinsonian signs, myoclonus, hyperreflexia, dysarthria, ataxia/cerebellar dysfunction, dysphagia, orofacial dyskinesia **Frequency 66.5%**

**Seizures: Frequency 60.4%**

**Autonomic Dysfunction:** High or low respiratory rate, high or low heart rate, high or low or labile blood pressure, hypersalivation, diaphoresis, urinary incontinence **Frequency 45.7%**

**Fever: Frequency 28.3%**

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