

Rowan University

## Rowan Digital Works

---

Stratford Campus Research Day

26th Annual Research Day

---

May 5th, 12:00 AM

### A Case of Acute Disseminated Encephalomyelitis in an Adult Male with Bipolar Disorder

Jinisha Patwa  
*Rowan University*

Tracey Harris  
*Virtua Our Lady of Lourdes Hospital*

Follow this and additional works at: [https://rdw.rowan.edu/stratford\\_research\\_day](https://rdw.rowan.edu/stratford_research_day)



Part of the [Nervous System Diseases Commons](#), [Neurology Commons](#), [Pathological Conditions, Signs and Symptoms Commons](#), and the [Psychiatry Commons](#)

Let us know how access to this document benefits you - share your thoughts on our [feedback form](#).

---

Patwa, Jinisha and Harris, Tracey, "A Case of Acute Disseminated Encephalomyelitis in an Adult Male with Bipolar Disorder" (2022). *Stratford Campus Research Day*. 5.  
[https://rdw.rowan.edu/stratford\\_research\\_day/2022/May5/5](https://rdw.rowan.edu/stratford_research_day/2022/May5/5)

This Poster is brought to you for free and open access by the Conferences, Events, and Symposia at Rowan Digital Works. It has been accepted for inclusion in Stratford Campus Research Day by an authorized administrator of Rowan Digital Works.

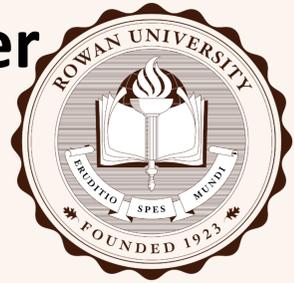


OSTEOPATHIC  
MEDICINE

# A Case of Acute Disseminated Encephalomyelitis in an Adult Male with Bipolar Disorder

Jinisha Patwa, B.S., Tracey Harris, M.D.

Rowan School of Osteopathic Medicine, Virtua-Our Lady of Lourdes, NJ



## Background

Acute disseminated encephalomyelitis (ADEM) is a rare demyelinating disease characterized by inflammation of the brain and spinal cord. The rapidly progressive inflammation in the central nervous system is known to occur in response to a prior infection or immunization.

The clinical signs of ADEM may manifest up to 60 days post illness or vaccination. Some develop encephalopathy and neurologic symptoms which include confusion, psychosis, and tetraparesis. Paresthesia of the limbs and muscular atrophy indicate a worse prognosis and higher risk of relapse as opposed to those with only CNS involvement. A predominantly psychiatric presentation is also possible.

Risk factors include male sex, winter, genetics, exposure to infectious organisms, immunization exposure, and lighter skin, and children less than age 10. The rapid course of ADEM warrants extra caution and need for early recognition in order to initiate prompt treatment.

## Case Presentation

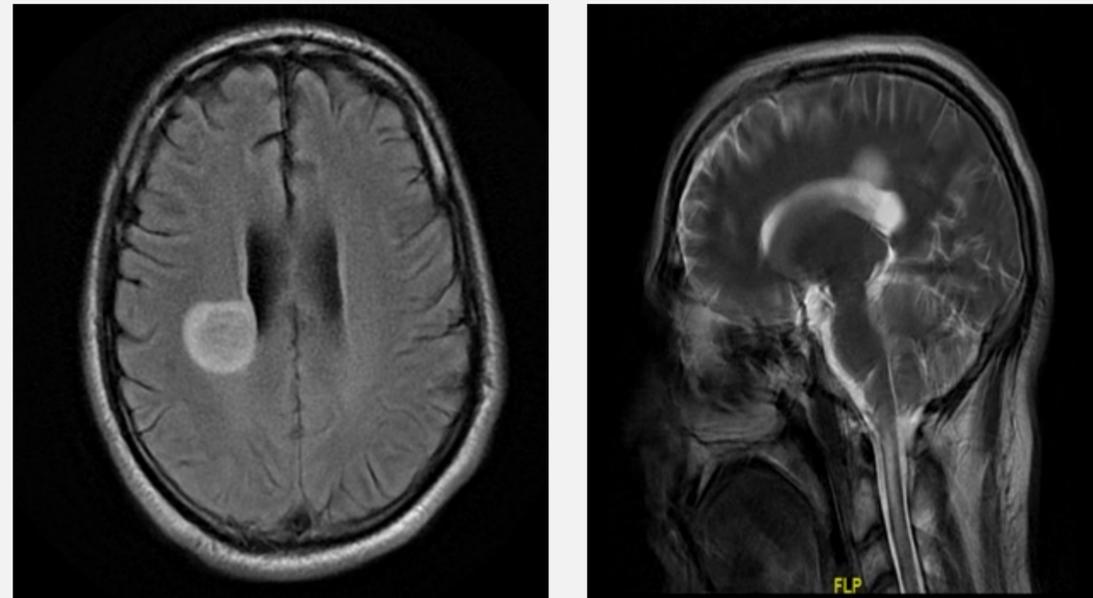
A 36-year-old male with a past medical history of bipolar 1 disorder with psychotic features, depression, alcohol use disorder, prior methamphetamine use, and DM2 presented to the hospital with lower extremity weakness, altered mental status and ataxia. One week prior to hospital admission, patient had been discharged from an inpatient psychiatric facility. Patient was evaluated in the hospital by neurology.

## Results

### Physical Exam:

- Left eye hypotropia
- 0/5 strength left lower extremity
- Bilateral upgoing plantar responses

### Results:



- CT Head: 1.8 x 2.5 cm mass-like region of decreased density in the right corona radiata which could represent demyelinating process
- MRI Cervical spine: C2, C5 and C6, T1 abnormal signal
- Lumbar puncture: Pleocytosis in CSF

### •Diagnosis:

An acute demyelinating encephalomyelitis diagnosis was made given the clinical presentation, CSF findings, and abnormal imaging results.

### Patient Outcome:

Treatment was initiated with pulse steroids, acyclovir and immunoglobulin therapy. The patient stabilized over a span of a month and discharged to acute inpatient rehabilitation.

## Discussion

This case highlights how psychiatric illness may mask an early ADEM diagnosis. It is vital to get a thorough neurological and medical history in patients presenting with psychiatric symptoms. In addition, no specific preceding event such as infection or immunization exposure is necessary to trigger the inflammatory process causing ADEM. This underlines placing ADEM on the differential as its clinical presentation may vary and requires prompt treatment.

## Conclusion

This case highlights the severity of an adult-onset acute disseminated encephalomyelitis diagnosis and the absence of preceding infection or immunization. Although clinical manifestations vary and usually include both neurologic and psychiatric symptoms, an extensive psychiatric history in a patient could mask ADEM and warrants a closer look into their comorbidities to include this disease on the differential. Early recognition of ADEM is crucial to initiate life-saving treatment and facilitate better outcomes during rehabilitation.

## References

1. Alves JM, Marques IB, Gil-Gouveia R. [Vaccination Controversies: An Adult Case of Post-Vaccinal Acute Disseminated Encephalomyelitis]. *Acta Med Port.* 2019 Feb 01;32(1):81-85.
2. Mahdi N, Abdelmalik PA, Curtis M et al: A Case of Acute Disseminated Encephalomyelitis In a Middle-aged adult. *Case Rep Neurol Med*, 2015; 2015: 6017062. doi.org/10.1155/2015/601706
3. Nishiyama M, Nagase H, Tomioka K, Tanaka T, Yamaguchi H, Ishida Y, Toyoshima D, Fujita K, Maruyama A, Sasaki K, Oyazato Y, Nakagawa T, Takami Y, Nozu K, Nishimura N, Nakashima I, Iijima K. Clinical time course of pediatric acute disseminated encephalomyelitis. *Brain Dev.* 2019 Jun;41(6):531-537