

# Teaching NeuroImage: CAR-T–Induced Nonconvulsive Status Epilepticus

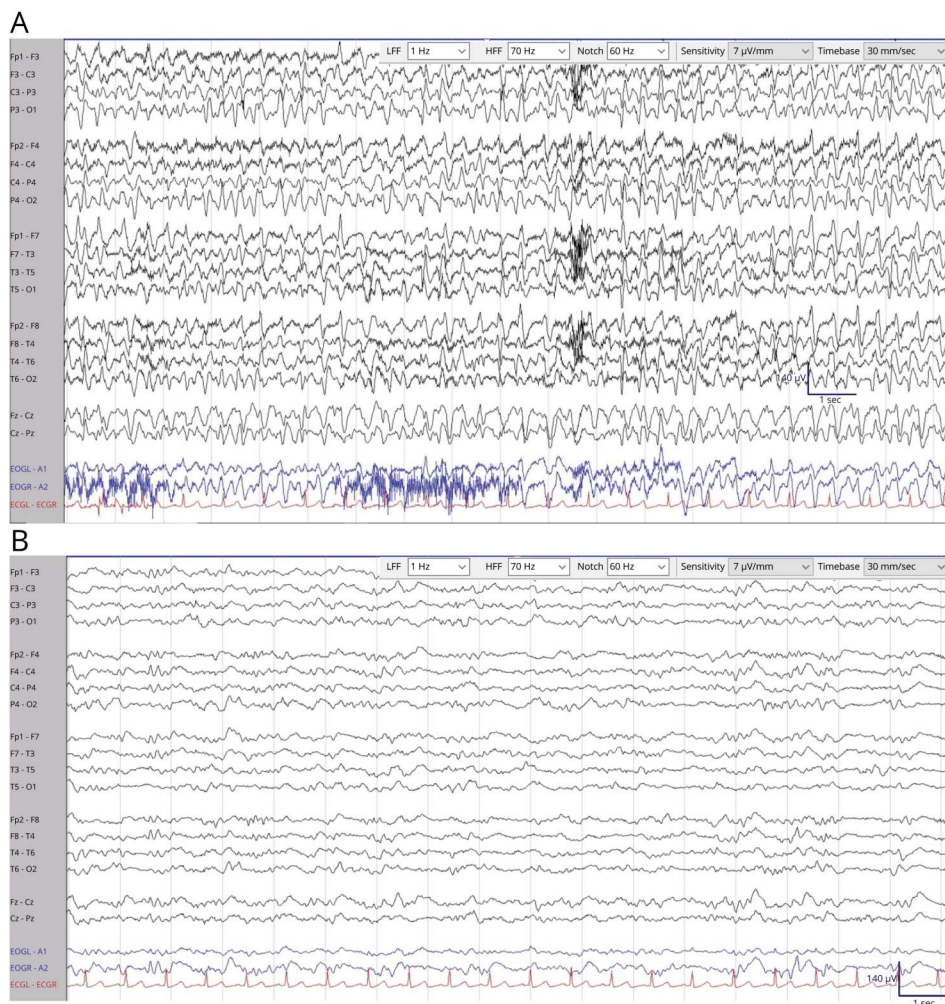
Yvo Rodriguez, MD, Mohanad AlGaeed, MD, Katelyn Dolbec, MD, and Trudy Pang, MD

*Neurology*® 2021;97:e1262-e1263. doi:10.1212/WNL.0000000000012182

**Correspondence**

Dr. Rodriguez  
ivor3010@gmail.com

**Figure** EEG Before and After Treatment



(A) EEG depicts nonconvulsive status epilepticus (NCSE) characterized by high voltage generalized spike/polyspike slow wave discharges at 2.5–3 Hz. (B) Resolution of NCSE pattern after administration of lorazepam, followed by levetiracetam.

A 79-year-old woman receiving chimeric antigen receptor T-cell (CAR-T) therapy for high-grade lymphoplasmacytic lymphoma developed worsening confusion over 3 days. She became nonverbal and unable to follow commands. MRI of the brain demonstrated global atrophy. EEG showed 2.5- to 3-Hz generalized spike and slow complexes, indicative of nonconvulsive status epilepticus (NCSE), which resolved with the administration of lorazepam (figure). IV levetiracetam load was

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From the Department of Neurology, Beth Israel Deaconess Medical Center, Boston, MA.

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administered for maintenance therapy. The patient was able to answer simple questions the next morning and returned to baseline 3 days later with optimization of antiseizure medications. CAR-T–induced neurotoxicity can present with multiple neurologic manifestations including sometimes intractable seizures.<sup>1</sup> It is imperative to consider CAR-T–induced NCSE as a complication that is potentially reversible.<sup>2</sup>

## Study Funding

The authors report no targeted funding.

## Disclosure

The authors report no disclosures relevant to the manuscript. Go to [Neurology.org/N](http://Neurology.org/N) for full disclosures.

## Appendix Authors

Name	Location	Contribution
<b>Yvo Rodriguez, MD</b>	Department of Neurology, Beth Israel Deaconess Medical Center, Boston, MA	Drafting/revision of the manuscript for content, including medical writing for content, major role in the acquisition of data

## Appendix (continued)

Name	Location	Contribution
<b>Mohanad AlGaeed, MD</b>	Department of Neurology, Beth Israel Deaconess Medical Center, Boston, MA	Drafting/revision of the manuscript for content, including medical writing for content, major role in the acquisition of data
<b>Katelyn Dolbec, MD</b>	Department of Neurology, Beth Israel Deaconess Medical Center, Boston, MA	Drafting/revision of the manuscript for content, including medical writing for content
<b>Trudy Pang, MD</b>	Department of Neurology, Beth Israel Deaconess Medical Center, Boston, MA	Drafting/revision of the manuscript for content, including medical writing for content

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*Neurology* 2021;97:e1262-e1263 Published Online before print May 12, 2021

DOI 10.1212/WNL.00000000000012182

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