RESIDENT & FELLOW SECTION

Teaching NeuroImage: CAR-T–Induced Nonconvulsive Status Epilepticus

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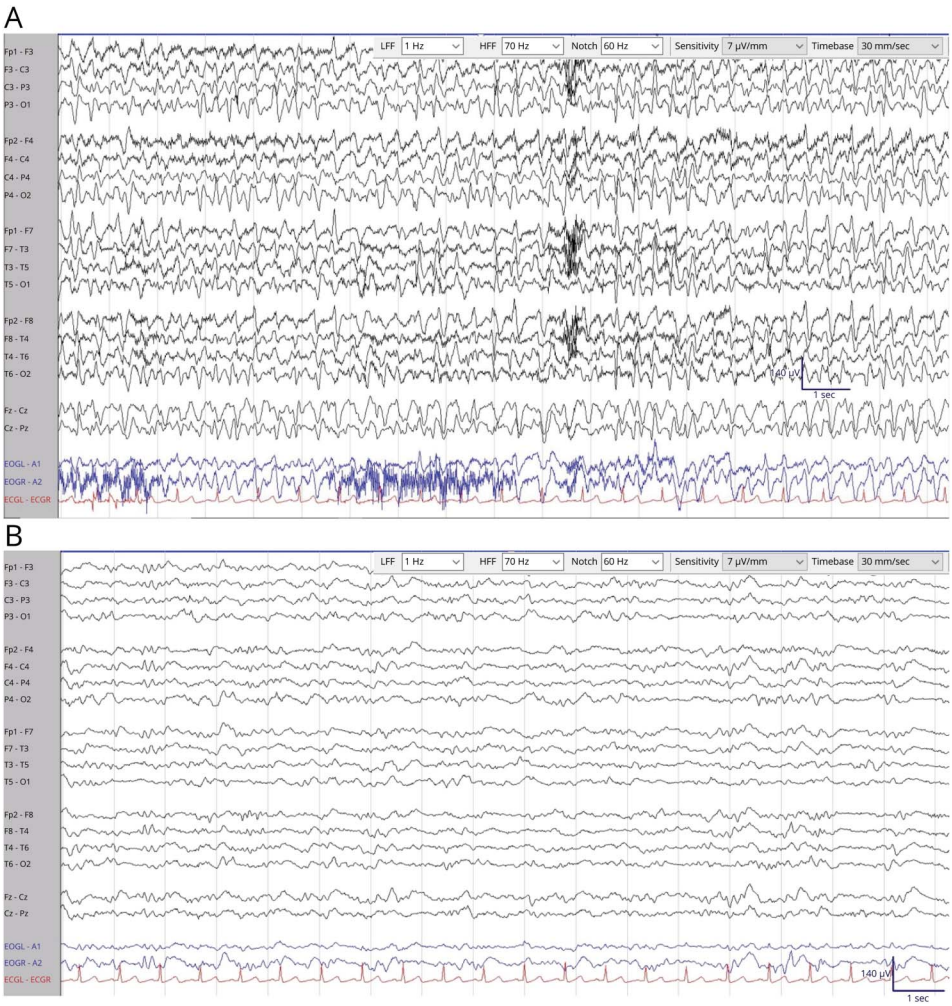
Figure EEG Before and After Treatment



(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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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.[1] It is imperative to consider CAR-T–induced NCSE as a complication that is potentially reversible.[2]

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Disclosure

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Appendix Authors

Name	Location	Contribution
Yvo Rodriguez, MD	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
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Trudy Pang, MD	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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