

CASE STUDY

Mesial Temporal: Bilateral

32 year old woman presents with 3 to 4 seizures a month characterized by a feeling of dread, then loss of awareness and nonsensical vocalizations.

HISTORY

Seizure onset: 14 years of age

Seizure risk factors: none

Prior treatments: failed trials of 3 antiepileptic medications

Scalp EEG: interictal right temporal spikes (F4/T6) and infrequent left temporal sharps (F3/T3); video-EEG after antiepileptic medications were withdrawn captured 3 typical seizures with right anterior temporal ictal onset and one nocturnal generalized tonic clonic seizure with a left anterior temporal onset

MRI: hippocampal sclerosis on right and slight atrophy of left hippocampus

Intracarotid Amytal (Wada) test: left hemisphere language dominant, impaired recall after left and right injections

Neuropsychological testing: significant impairment of visuospatial memory, slight impairment of verbal memory

EVALUATION & PLAN

- Partial onset seizures of right mesial temporal lobe origin and possible left temporal origin as well
- Risk of substantial memory deficits following right temporal lobe resection
- Candidate for RNS System with left and right mesial temporal responsive stimulation

LEAD IMPLANT STRATEGY

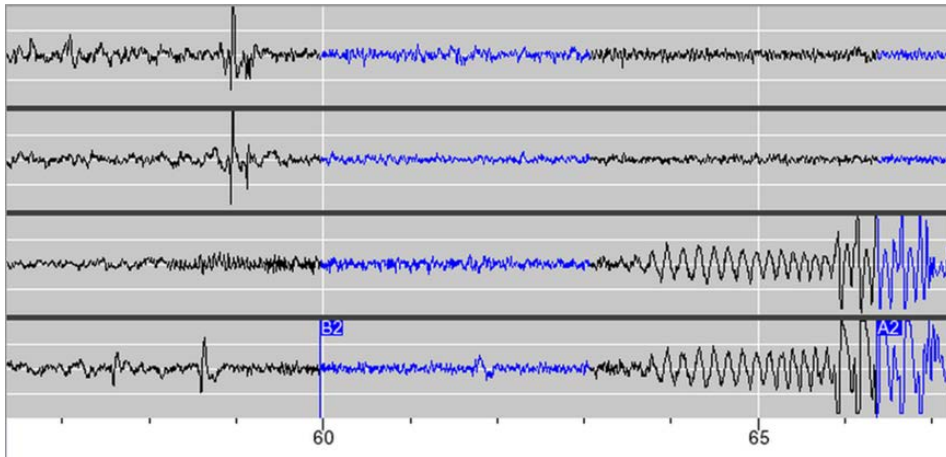
Right and left hippocampal depth leads: occipital approach along long axis of hippocampus



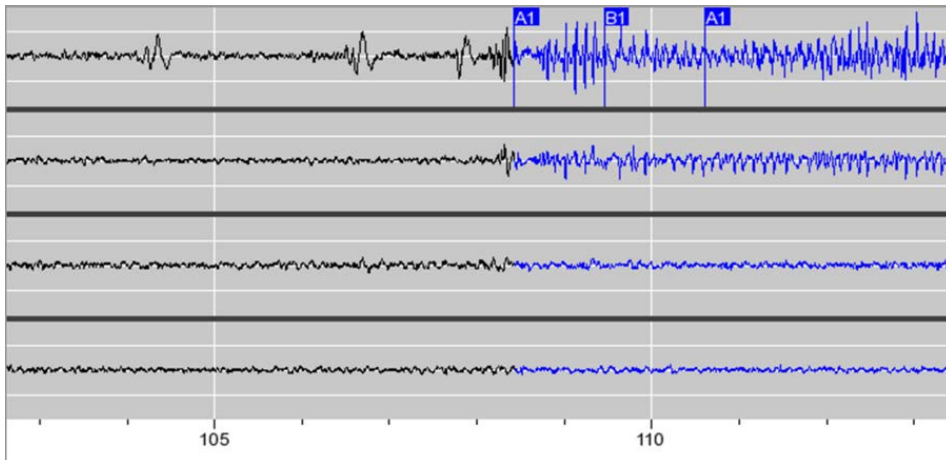


ECOG

Electrographic seizure detected before neurostimulator has been programmed to provide responsive stimulation. The top 2 channels are recording from the left hippocampal depth lead and the bottom 2 channels from the right hippocampal depth lead. B2 indicates the detection of low voltage fast activity on the right depth lead.



Electrographic seizure detected before neurostimulator has been programmed to provide responsive stimulation. The top 2 channels are recording from the left hippocampal depth lead and the bottom 2 channels from the right hippocampal depth lead. A1 and B1 indicate the detection of increased amplitude rhythmic activity.



This case study is a composite adapted from actual case files; results are not necessarily representative of the patient population.



See important prescribing and safety information in the RNS® System labeling. This is intended as supplementary information and should be used in conjunction with the labeling. Refer to the labeling for a description of the RNS® System and its components, indications for use, contraindications, warnings, cautions, adverse events and instructions for use. The manuals are available at www.NeuroPace.com.

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