

CASE STUDY

Neocortical: Interhemispheric

25 year old man presents with 5 to 9 nocturnal generalized tonic clonic seizures a month.

HISTORY

Seizure onset: 19 years of age

Seizure risk factor: MVA related head trauma with loss of consciousness > 48 hours

Neurological exam: subtle right pronator drift

Prior treatments: failed trials of 5 antiepileptic medications

MRI: normal

Scalp video-EEG: remarkable for seizures characterized by right arm stiffening followed by generalized tonic stiffening and subsequent clonic movements, ictal EEG shows diffuse left frontal attenuation followed by muscle artifact

Intracranial monitoring:

Subdural grid over left frontal pre- and post-central gyrus, left interhemispheric strips

Diffuse ictal onset over left anterior quadrant

Onset correlates with left supplementary motor cortex

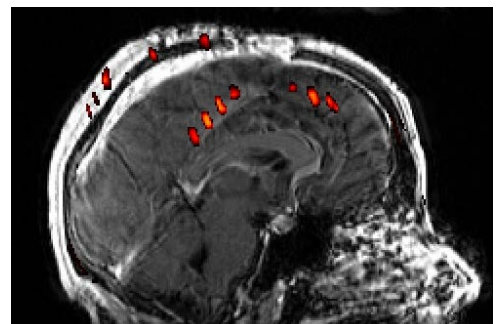
EVALUATION & PLAN

- Partial onset seizures left supplementary motor cortex
- At risk for right hand and arm motor deficits following resection
- Candidate for RNS System with left supplementary motor strips

LEAD IMPLANT STRATEGY

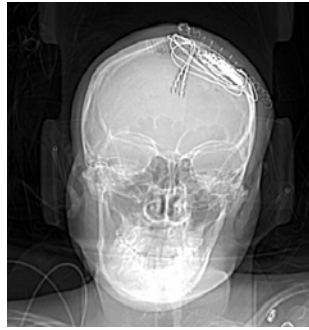
3 cortical strip leads placed*:

- 1 in the anterior and 1 in the posterior interhemispheric space spanning left supplementary motor cortex
- 2 over the lateral frontal convexity spanning the central gyrus (1 superior and 1 inferior)



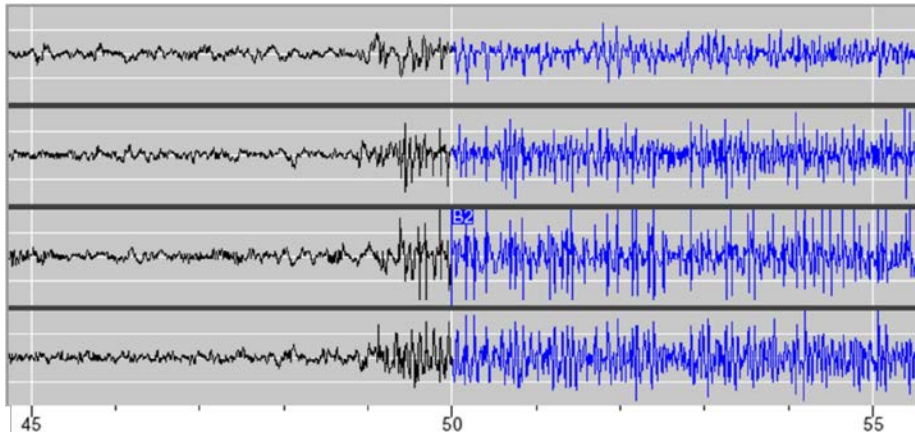


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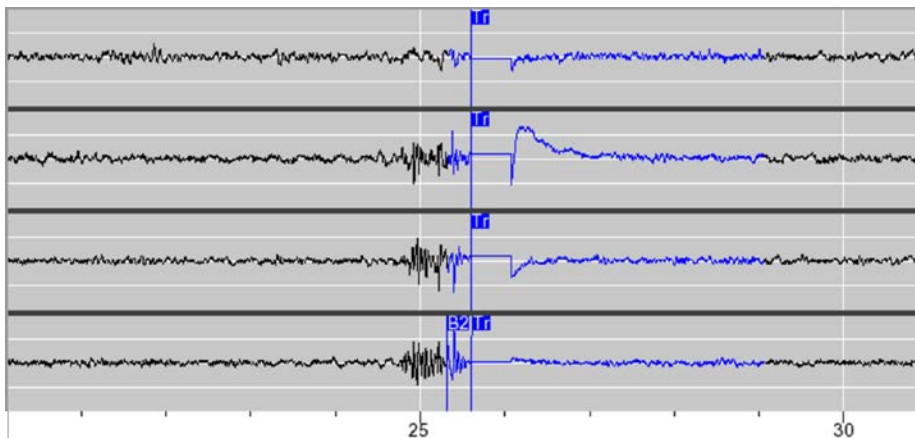


ECOG

Electrographic seizure detected before stimulation is enabled. The top 2 channels are recording from the anterior interhemispheric strip and the bottom 2 channels from the superior lateral frontal strip. B2 indicates detection.



Electrographic discharge detected at B2 and treated with responsive stimulation (Tr)



*Only 2 leads are connected to the neurostimulator at once.

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

RxOnly

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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