Treatment Challenges: Case Presentation
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Disclosure

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Salary Support
Learning Objectives

• Review a case of treatment-resistant, non-lesional focal epilepsy
History

23 yr old right-handed bilingual (Spanish/English) man, originally from Guatemala, without epilepsy risk factors referred for further management of treatment-resistant epilepsy

**Seizure onset:** 12 years, 2 convulsive seizures, preceded by aura of flashing lights on the right side. He had a good response to initial treatment but seizures recurred at age 16 and continued without significant periods of remission despite multiple medication trials.
History Cont

**PMHx:**
Depressed mood
Hypersomnia, related to AEDs
Osteoporosis

**SHx:**
Married, no alcohol, tobacco or drug use. Finished high school. Currently working in a shipping department.
Seizure Semiology

1. He describes seeing “blinking lights” on the right side of his visual field lasting several seconds auras. Occur daily.

2. These can progress to behavioral arrest, mumbling, oral and bimanual automatisms lasting about ~1 min. 2-10 times per week.

3. In past 2 years, he has occasional seizures where he loses awareness or feels like he is "off" without an aura of flashing lights. He has no post-ictal aphasia but occasional headache.

4. Secondarily generalized tonic clonic seizures. His last SGTC was 2/2011 in the setting of missed medications. ~ 6-8 lifetime SGTCs. No history of status epilepticus.

Typically seizures occur in the AM between 9 AM and 12 PM. He feels "stress" is provocative.
Current and Past Treatment

Current Medications:

- Levetiracetam XR 1500mg BID
- Zonisamide 400mg QHS
- Oxcarbazepine 600mg BID
- Clobazam 5mg-10mg
- Alendronate, Vit D

Prior AEDS: valproate, topiramate, lacosamide all ineffective at unknown doses
Examination

• General Medical Exam: unremarkable, no neurocutaneous lesions

• Neurologic Exam: mild psychomotor slowing,
Evaluation

• **MRI**: normal, 3 Tesla 2012
• **Interictal EEG**: frequent left anterior temporal sharp waves during sleep
• **Ictal EEG**: 6 left temporal onset complex partial seizures, 3 with more posterior vs anterior onsets.
Evaluation Continued

• **PET:** Mild left temporal hypometabolism

• **Neuropsychological testing:**
  – Intellectual functioning is in the average range
  – Intact language and visuospatial abilities
  – Weaknesses were noted in working memory and executive functioning (cognitive flexibility, inhibition, novel problem solving)
  – Verbal memory was intact, while he demonstrated mild retention deficits on visual tasks.
  – Motor functioning was normal bilaterally.

• **Wada:** left memory $0/12$, right memory $10/12$, left hemisphere language (in Spanish and English)

• Humphrey Visual Field perimetry normal