■ Electroclinical reasoning report

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Temporal lobe epilepsy with a contralateral parietal seizure-onset zone

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- Parietal lobe epilepsy is very challenging to diagnose especially in nonlesional cases.
- Here, we report a patient with focal impaired awareness seizures (FIAS)
 that manifested semiologically and electrographically as left TLE but proved
 to originate from the contralateral medial parietal lobe.
- Based on the patient's scalp EEG recordings, seizure semiology, and PET scan, our initial hypothesis was that the seizures originated from the left temporal lobe, assuming that the right parietal cystic lesion was simply an incidental finding.
- However, the patient's past auras of piloerection, and the early ictal blinking which preceded the electrographic ictal onset necessitated sampling the right precuneus.



- Investigating the competing hypotheses of "left temporal" vs. "right parietal seizure focus with rapid spread" warranted an invasive monitoring study using a combination of bilateral SEEG and strips in multiple lobes.
- Invasive ictal recording demonstrated an unequivocal seizure onset from the right posterior quadrant.
- Resection of the cystic lesion and perilesional brain tissue resulted in seizure freedom.
- We also discuss the complexity and the interconnectivity between the parietal and temporal lobes.

