

Temporal lobe epilepsy? Things are not always what they seem

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Patient, born 1989

Aura and seizure semiology:

Unpleasant “contraction in epigastric region” accompanied by fear, followed by a loss of consciousness, change in facial appearance, orolimentary automatisms (mastication), limb automatisms, and nose wiping or face rubbing without clear lateralization; speech was preserved during the seizure.

MRI:

No potentially epileptogenic lesion; only postmalatic cavity in the left thalamus.

Distribution of IEDS on long-term video-EEG:

Independent left-sided (more often) and right-sided temporal IEDs

Independent left-sided frontal IEDs

Ictal findings on long-term video-EEG:

Seizures started on the left side in the temporal region. Fast propagation of ictal activity to the right temporal region.

First Hypothesis:

Localization – temporal lobe epilepsy; lateralization – left-sided

A red flag – distribution of IEDs (independent bifrontal IEDs)

Actions:

Invasive EEG

Invasive EEG

Interictal findings:

IEDs in left-sided mesiotemporal structures + left side of the posterior cingulum

Ictal findings:

Ictal activity started in the left side of the posterior cingulum and propagated to the left side of mesiotemporal structures

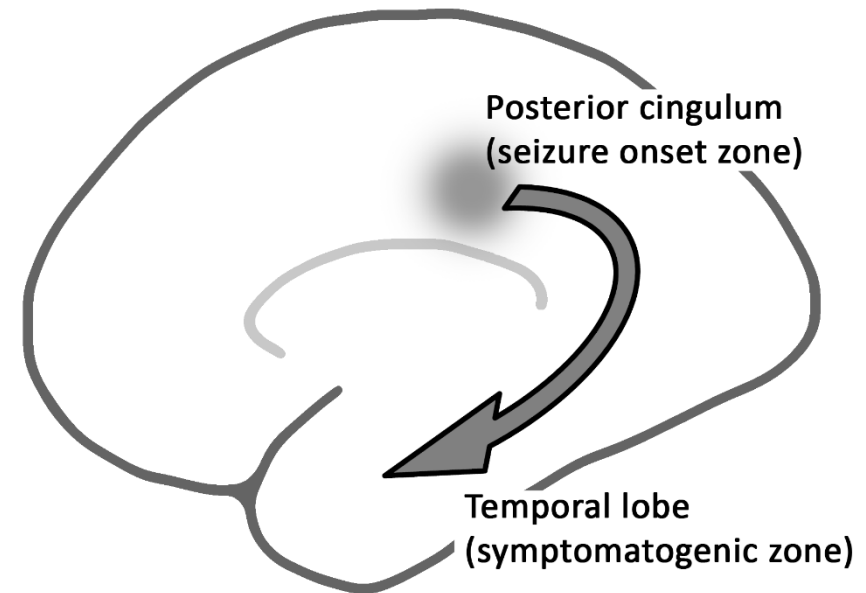
Second hypothesis:

Localization – posterior cingulate epilepsy; lateralization – left-sided

Actions:

Resection of the left side of the posterior cingulum

Seizure-free for three years



Diagnosis of pseudotemporal epilepsy:

Pseudotemporal epilepsy can be characterized by extra-temporal seizure onset, but the ictal activity rapidly spreads to the temporal regions, thus the seizures mimic temporal semiology.