

Original article

Epileptic Disord 2015; 17 (2): 1-6

Auditory aura in frontal opercular epilepsy: sounds from afar

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Received May 30, 2014; Accepted February 08, 2015

Epileptic aura

- The subjective manifestation of a clinical seizure, typically assumed to be in close proximity to the epileptic generator. Modality depends upon the cortical region involved:
 - e.g. auditory auras localize to the temporal neocortex.
- “Elementary” auras implicate primary cortex:
 - e.g. auditory hallucinations of a ‘ringing’ sound implicate the primary auditory cortex.
- “Complex” auras implicate association cortex
 - e.g. auditory hallucination of voices or music, or auditory illusions such as a distortion of environmental sounds.
- However, as these cases demonstrate, aura may rarely be a “propagated” phenomenon, elicited remote to the epileptic generator or arising as a network process.

“Perisylvian epilepsy”

- An under-recognized focal epilepsy syndrome involving seizures of the opercular structures and subjacent insula. Semiology relates to the cortical regions involved:
 - Auditory hallucinations: temporal operculum
 - Hemifacial motor/sensory: frontal and parietal operculum
 - Ipsi/contra/bilateral sensory: second somatosensory area (parietal operculum)
 - Laryngeal symptoms, autonomic symptoms, gustatory hallucinations: insula
- A form of temporal “*plus*” epilepsy