

52nd International Neuropsychiatric Pula Congress
DIAGNOSING EPILEPSIES – FROM AURA
TO NEUROIMAGING AND EPILEPSY SURGERY
AURA – IS IT IMPORTANT IN SEIZURE LOCALIZATION

Hrvoje Hecimovic, MD, PhD

Department of Neurology, University Hospital, Zagreb, Croatia
hecimovic@inet.hr

Clinical seizure semiology can depend on involvement of any of the following systems: sensory and motor system, the central autonomic network, language/speech area and the so called emotional brain. Human brain functions are organized into networks and there are primary sensory or motor systems or higher order networks (cognitive functions, emotions, feelings etc.).

Auras are generated in the seizure-onset zones and have highest localizing value for epileptic focus. Abdominal aura is mainly characteristic in patients with temporal lobe epilepsy, but it is also described in smaller number of patients with extratemporal epilepsy. When temporal epileptic regions are studied, the abdominal aura is more characteristic for patients with the mesial temporal lobe epilepsy. In retrospective study of 67 patients who had temporal lobectomy by French et al in 1993, major risk factors for mTLE were history of seizures during early childhood, especially febrile seizures, then head trauma and birth trauma. In this

study more patients with hippocampal sclerosis had history of febrile seizures and epigastric aura than patients with extratemporal epilepsy. More subjects had early oral automatism, but less early motor involvement of upper extremities. Patients would more readily recognise their aura if they suffer less from secondarily generalized seizures and had more lateralized ictal EEG. Their postsurgical outcome was also better.

Frontal lobe seizures consist of complex motor automatisms and hypermotor seizures. They are usually accompanied by vocalization, sudden onset and offset, short duration and may have nocturnal preponderance. The last fits to distinguish based on clinical semiology are autonomous behavioral disorders. Ictal features for this non-epileptic seizures is that patients usually have their eyes closed, their motor activity is discontinuous, have more lateral movements and duration of seizures can be more than 2 minutes. Postictally there is no confusion.