



02/20/24 Neuro Morning Report with @CPSolvers



“One life, so many dreams” **Case Presenter:** Valeria Roldan (@valeroldan) **Case Discussants:** Greg Atafo and Umbish Dino (@UmbishD)

CC: Visual hallucinations

HPI:

60 year old male comes to the ED referring 2 weeks of episodes that start with an oscillating red light that grows bigger and bigger and then the appearance angry non-familiar faces that he interprets as accusing him, but he identifies they are not really there. They predominate in his left visual field. They occur 4 to up to 10 times per hour, awake him at night and the episodes last less than a minute. The episodes are preceded by right parietal and occipital headaches of moderate intensity.

ROS: Blurry vision for the past year.

PMH:
DM2 and HTN

Meds: Insulin
NPH,
losartan,
amlodipine,
HCTZ

Health-Related Behaviors:

1 partner with intermittent use of condoms. He drinks 4 times a week, often until losing consciousness.

Allergies:

Vitals: BP 130/60 HR 60

Exam:

Gen: Normal.

Neuro:

Mental Status: AxO

Cranial Nerves: During episodes, L gaze deviation and horizontal nystagmus and loss of vision in R visual field.

Gait: Unstable

Other:

Notable Labs & Imaging:

CBC: normal Metabolic panel: normal.

Glucose: 496. HbA1c: 20 Spikes of glucose consistent with symptom onset.

Started on carbamazepine.

EEG: attenuation of rhythm of posterior area of right (R) hemisphere.

Brain CT: Small hypodensity next to the posterior aspect of the L ventricle. Otherwise, radiology reported it as normal.

Ophthalmology consult: DM retinopathy.

Discharged with anticonvulsant Rx.

MRI:Hyperintensities with Diffusion restriction in the L Occipital Lobe.

Dx: Stroke. Hyperglycaemic Induced Reversible Encephalopathy Syndrome. Charles Bonnet Syndrome.

Problem Representation:60 Y/o M w/a PMH of poorly controlled DM2 and HTN p/w 2 weeks of episodic(*4-10/hr) visual hallucinations on the L eye field preceded by Right Parietal and Occipital HA found to have Hyper intensities in the L-occipital lobe on the MRI.

Localization: L visual hallucinations, L gaze deviation → R sided parietal or occipital lesion. R visual field deficits → L hemisphere?

Teaching Points (navpreet singh): #EndNeurophobia

- D/d from visual hallucinations could be Recent intoxication,delirium,dementia,Alzheimer disease,LB disease,stroke.infectious encephalitis or structural lesion.
- For any vision problem we need to evaluate monocular or binocular vision problems,diplopia or visual field defect,
- Release hallucinations-caused due to absence/defect in vision pathway and peduncular hallucinations - due to lesion in midbrain (virtual reality,hallucinations coordinate/correlate with real life events.Auditory hallucinations are more commonly in psychiatric disorders.
- Need to know and ask questions regarding description of hallucination(type,form,person,animal,comforting or someone walking by side)
- One side of hallucinations,visual defect or any other focal symptom need us to think some focal lesion in brain.
- Recurrent visual hallucinations and headache could be due to migraine,or seizures(occipital lobe lesion causes geometric visual hallucinations)Alcohol withdrawal can cause withdrawal hallucinations, DT, hypoglycemia can cause hallucinations and hyperglycemia causes focal motor seizures.
- Nystagmus could points towards vestibular pathway or cerebellum.
- Postictal seizure can cause refractory visual defects like hemianopia. Hyperglycemia can cause focal motor seizures,
- Diffuse restriction on Mri means ability of water to diffuse in tissue) is common acute stroke ,seizure,abscess,cns lymphoma.
- Charles Bonnet Syndrome-Charles Bonnet syndrome (CBS) refers to a phenomenon of visual hallucinations occurring in patients with acquired vision loss affecting the eye or visual tracts in the optic nerve, chiasm, or brain.