4/12/22 Neuro Morning Report with @CPSolvers

Case Presenter*: Antonio Mesquita (@)* ***Case Discussants****: Samy (@samymady12) and Seyma(@seymss15)*

CC: Loss of consciousness

Middle aged man w/ 2 episodes of LOC. Episodes happened while he was standing up w/ no prodromal symptoms. LOC was self limited and returned to awake state within a few seconds with no confusion afterwards.

In ED, he described feeling "dizziness/vertigo", difficulty standing up and difficulty maintaining posture while standing.

PMH:
3y prior - liver transplant bc of alcoholic cirrhosis and hepatocellular carcinoma.

HTN
Obesity

Meds:
Tacrolimus, mycophenolate. HTN meds.

Fam Hx:

Soc Hx:

Health-Related Behaviors:
No alcohol consumption since before transplant. Currently non smoker.

Allergies:
None

Vitals: Normal, no orthostatic VS bc of instability. No pulse/BP differences btwn R/L arm.

Exam:

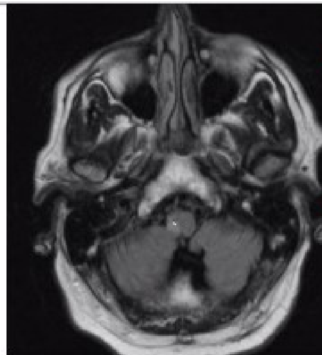
Systemic: Normal.

Neuro
- **Mental Status:**
- **Cranial Nerves:** multidirectional nystagmus non suppressible. R eye ptosis and R eye miosis.
- **Motor:**
- **Reflexes:**
- **Sensory:** Loss of temperature sensation in L side of body, face not affected.
- **Cerebellar:** Dysmetria in R arm and R leg, same with eyes closed or open.
- **Other:** Romberg not available.

Notable Labs & Imaging:

Hematology: Nl.

Chemistry:
BMP nl.
Nl glucose.
EKG sinus rhythm. Echo nl.
Tacrolimus levels normal.
Syphilis serology neg.



Imaging:
CTA Head and Neck: Nl.
USG Cervical vessels: Nl.
Neg for subclavian steal sx.
Final DX: Wallenberg syndrome 2/2 paroxysmal AFib w/Autonomic Failure

Problem Representation: Middle aged man with PMHx of liver transplant p/w episodic LOC triggered by standing up, central nystagmus, crossed sensory signs and cerebellar findings.

Teaching Points (María): #EndNeurophobia

- **Loss of consciousness:** Neuro vs Non Neuro.
  - **Neuro Dx=Time*Localization.**
    - Time consider not only hyperacute/acute but also progressive/transient.
  - **MIST** - Metabolic, Infectious, Structural, Toxins.
  - **5 S** - Sugar, Syncope, Seizure, Stroke (most likely hemorrhagic), Sleep.
    - Transient LOC Seizure vs Syncope: *Not perfect* signs that increase LR of Seizure: prolonged postictal state, urinary incontinence, lateral tongue bites.
  - If episodic, consider triggers or associated events- standing upright: hypovolemic state, autonomic instability, orthostatic hypotension, adrenal insufficiency.
  - Try to venn diagram other associated symptoms and localizations (ie: vertigo, imbalance → cerebellum + LOC maybe → posterior circulation TIA/stroke) before you pick the CC with the most gravitational pull.
- **Localizing Pearls**
  - Multidirectional Nystagmus → Central!
  - Crossed signs → Brainstem. R or L? Contralateral to body, ipsilateral to face.
  - Sensory → Lateral; Motor → Medial. CN divisible by 12 → Medial.
  - Ptosis (could be CN3 or Sympathetic Branch) + Miosis → Horner sx.
- **Wallenberg - Lateral medullary syndrome** (PICA → Vertebral A.)
  - Sympathetic fibers: Horner sx
  - Inf. Cerebellar peduncle: Ataxia, dysmetria
  - Spinothalamic tract: Loss of pain and temperature CL to body
  - Spinal trigeminal nerve: Loss of pain and temperature IL to face
  - Vestibular nuclei: vertigo, nystagmus
  - CN9,10 → Dysphagia, Hoarseness, Loss of gag reflex.
  - Vagal Nuclei → Autonomic Dysfunction can explain syncope.
- https://bit.ly/3vc0MPc