



10/8/24 Morning Report with @CPSolvers



“One life, so many dreams” Case Presenter: Abolfazl Khosravi Case Discussants: Youssef Saklawi (@saklawiMD) and Ravi (@rav7ks)

CC: 56 yo male (Iran) who was referred w/ suspicion for **methanol toxicity**

HPI: experienced **LOC 3 days ago** after consumption of moonshine at work, another LOC after **consumption of moonshine** last night, memory intact, events last days hazy, timeline of events are valid (brother confirmed), **memory blurry, diplopia, vertigo**, he passed out at his office desk this morning. Had a common cold last week, no nausea, vomiting, or trauma.

PMH: no

Meds: received Thiamin and B12 supplementation

Fam Hx:
No

Soc Hx:
No travels, office worker

Health-Related Behaviors: **smoking 6 month half a package, h/o chronic alcohol consumption, moonshine at home**

Allergies:
NKA

Vitals: T: afebrile HR: 88 BP: 130/ 80 RR: 18 99% Ra

Exam:

Gen: mood appropriate, no distress

HEENT: PERRA, no scleral icterus, no ptosis

CV: nl

Pulm: nl

Abd: soft, non tender, nondistended, no spider angiomas, no splenomegaly

Neuro: awake and oriented 3x, normal speech pattern, no paresthesia, near memory is intact, **vertigo** and diplopia, eye movement is normal, **no vertical movement of the eyes possible, diplopia improves when lying down**, no deficit in visual fields, normal hearing, no facial muscle movement abnormalities, can swallow, finger to nose nl, normal gait, **Extremities/skin:** no rashes

Notable Labs & Imaging:

Hematology:

WBC: 4.5 Hgb: 13.7 Plt: 167,000

Chemistry:

Na: 137 K: 3.5 Cl: HCO3 25.6 BUN 31 (nl) Cr: 0.9 Glc:121 HbA1c 5.4, AST: 21 ALT:36 Alk-P: 136 CKP 74 **LDH 350** pH 7.4, pCO2 40.5 Urine tox screen: nl; blood methanol level: neg; Vit B12: nl

Imaging:

MRI brain: DWI restricted area in symmetrical periaqueductal and bilateral thalami suggestive of recent ischemic infarction w/ hemorrhagic conversion in the territory of percheron artery

Dx: **acute ischemic stroke**

Problem Representation:

56 yo M who presented with LOC, diplopia, vertigo, found to have vertical gaze palsy and MRI with periaqueductal and b/l thalamic infarct with hemorrhagic conversion from the percheron artery leading to Parinaud syndrome

Teaching Points:

- **Alcohol toxicities:** usually manifest as an AGMA with a particularly large osm gap
- **Methanol:** metabolized to formate, toxicity associated with visual changes including blindness, can be treated with activated charcoal to prevent absorption and fomepizole. Can test w/ methanol level
- **LOC work up:** check glucose, consider seizure, syncope and MIST mnemonic (Metabolic, Infectious, Structural, Toxin)
- **Diplopia framework:** binocular or monocular
 - **Binocular** - eyes are not aligned; can test by having patient close one eye; if diplopia resolves then binocular (ddx: muscle weakness due to stroke, peripheral nerve issue, NMJ dz, muscle entrapment)
 - **Monocular** - if persists when one eye is closed, lesion can be due to eye disease (cornea, lens, macular) or cortical
- **Vertigo:** HINTS test can be used to differentiate peripheral or central vertigo
- **Vertical gaze palsy:** consider Parinaud syndrome, ddx: lesions of the midbrain (infarct, hemorrhage, infection, inflammatory, hydrocephalus, mass, demyelination)
- **Percheron artery:** posterior circulation variant that supplies paramedian thalamic and rostral midbrain