03/4/24 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Zac Owens*(@)* ***Case Discussants:*** Helen Shi*(@)*

CC: found unresponsive

HPI: 49 F currently residing in residential drug treatment program, brought by EMS after being found to have blood on L corner on mouth, she was not responding or acknowledging commands, baseline functionally independent no issues with speech, communication, ambulation, LNK 11 pm night before admission , GLC POC 130, no other information provided by family/EMS/facility. Prior records notable for several time ED visit for recurrent headaches over past 3 months with no labs/ imaging.

Hospital course: Admitted to floor shortly developed sudden onset behavioral changes, lip smacking, R hand shaking, IV Ativan Keppra loaded correlated with clinical episodes, continued despite treatment => neuro ICT intubated propofol drip status epilepticus

PMH: HTN, cocaine use intranasal, no reported use in past 7 months, headaches attributed to her HTN.
No surgeries.
No pregnancy.

Meds:
Amlodipine-Benazepril
Esomeprazole
Vit D3
Prednisone 20 mg(unclear indication)

Fam Hx: no family history of seizure or neurologic disorders.

Soc Hx: enrolled in residential drug treatment program for past 7 months/ Prior IV heroin use 5-6 years remote to presentation, no tobacco or alcohol use.

Allergies: NKDA

Vitals: T: 99.7 **HR:** 122 **BP:** 193/87 **RR:** 22 O2sat:99% RA
Exam:
Gen: uncomfortable appearing, agitated, trying to get out of bed despite 4-point restraints.
HEENT: L lat tongue laceration, no meningeal sign, no jaundice or palpable LAP.
CV: tachycardia,normal rhythm, no murmur
Pulm: CTAB normal work of breathing , symmetric chest wall expansion.
Abd: soft non tender non distended
Neuro: mental status: awake disoriented following simple commands was not able to participate, mumbling and often incoherent speech, do not participate in naming or repetition, unable to identify her mother who was in room.
CN normal, Motor moves all her extremities, pulling at straints strongly.
Coordination/ reflexes/ gait : no clonus, upgoing plantar reflex, otherwise unable to perform.
Extremities/skin: warm, well perfused, palpable pulses distally, no rash/skin lesion.

Notable Labs & Imaging:

Hematology: WBC:24 neutrophil, Hgb: 12.8, MCV 83, Plt:480
Chemistry:Na: 138,K: 3.8,Cl: 10, CO2: 22,AG 14,BUN: 15, Cr: 1.1 (base 0.9-1.1) Ca,Mag, P: nl total protein 8.5, AST:96 ALT:26, T bili nl, Alk-P: nl Albumin: 4.1, CPK 725, Troponin nl, lactate nl, TSH B12 HIV RPR nl,UDS neg cocaine, B-HCG negative, ESR 119, CRP 11.
Imaging: Non-con head CT: no acute intracranial abnormality, no stoke, no hemorrhage, no infarction,no mass. **CTA head and neck**: multifocal irregularity and severe narrowing of L M1 segment, enhanced focused on Temporal lobe. No extra cranial involvement.
MRI and MRA brain:left temporal lesion thick peripheral enhancement closed to arterial supply, diffuse leptomeningeal enhancement, multifocal intracranial vasculature no abnormal vessel enhancement. Dural thickening and enhancement along
EEG:multiple focal onset seizure arising from L temporal, continuous lateralized periodic discharge(LPDs) with (LPDs +F) superimposed with fast activity, moderate generalized background slowing.
CSF analysis: WBC 30 cells 88% lymph, 8 RBC, protein 72, glucose nl, gram stain few neutrophil, no organism, bac culture negative, CSF infection panel (Biofire) negative, positive oligoclonal band. VDRL negative. Cytology normal, AFB and fungal culture negative.
AI work up: ANA positive IF 1:160, negative dsDNA smith SSA SSB CCP MPO PR3 Antiphospholipid cryoglobulin IgG4 normal, Paraneoplastic antibody panel negative, SPEP/ UPEP consistent with MGUS.
Dural and L temporal Bx: Parenchymal and perivascular lymphocytic infiltrates of vessel walls of small/ medium size vessels with fibrinoid necrosis. No viral cytopathic effect and negative staining for mycobacterial/fungal organism.

Dx: Primary CNS vasculitis, lymphocytic subtype

Problem Representation: A 49-year-old female with a history of hypertension, cocaine use disorder, and recent headaches, presented with acute encephalopathy, seizures, and left temporal lobe abnormalities on imaging. Despite negative infectious and malignancy work-ups, cerebrospinal fluid analysis revealed elevated lymphocytes and oligoclonal bands.

Teaching Points (Kuchal):

1.AMS: (a)Time of day of Incident? -Vascular/ Ischemic/ hemorrhagic. (b) If with Neurologic deficit- Stroke alert to be activated d if last Normal is within 24 hrs.
2. Tongue Biting: Lateral> Central - Seizures. Lip biting: Syncope.
3. Elevated BP: - (a) Sympathetic overdrive. (b) PRESS
4. Seizures/ Sub clinical : tachycardia, tachypnea, Hypertnesive, Incontinence.
5. Ischemic Stroke without a known risk factors of HTN: have to r/o what's causing the sudden stroke- Was it episodic HTN due to underlying undiagnosed endocrinology/ Renal/ vasculitis/ Infections/ electrolyte abnormality. Or is it Radiographic HTN emergencies. Or due to drugs Cocaine/ marijuana/ LSD/ ; Any other PMH we are not aware off- ?
6. CVCS: Cerebral Vascular constriction Syndrome: seizures, vasospasm, can precipitate headaches, stroke..
7. **Prednisone 20 mgs/ day: ?For how lon. ? if the patient is having any underlying ?AI/ ?Endocrinologic condition/ Rheumatologic, ?Neuropsychiatric Lupus.??vasculitis- (Glucocorticoids can ppt seizure: electrolyte abnormality, Severe HTN, Severe Hyperglycemia. PPT infections due to immunosuppression.**
8. **Generalised Seizure: Electrolyte disturbance, Toxic metabolic.**
9. **Hypo/Hyperglycemia:Onset can be focal** and can/not progress to generalised depending on whether Rx was initiated.
10. CT Angiogram/ perfusion study : r/o large vessel occlusion.
11. Bacterial Meningitis >500 Count(usually). Viral < lower. But exceptions are possible. Important to do CSF: C&S/ HSV 1&2 PCR CSF VDRL.
12. Primary CNS Vasculitis: Lymphocytic subtype- is rare. Common for the patients to present with stroke (ischemic), seizure, headache + constitutional symptoms. Dx: either delayed upto > 7 days;(a) r/o other etiologies infections, vasculitis, rheumatologic causes.(b) Biopsy to be done. Rx: Steroids, but chances of the condition to progress is high.
13. (i) If last normal is 24 hrs or less, Stroke Alert to be activated. Important for the patient to receive TPA if eligible (ii) First time Seizure: Decision tree; if /not initiate Anti epileptics meds, assess the chance of recurrence, or if any abnormality in imaging. (ii) Primary CNS vasculitis rare than Vasculitis due to other underlying condition, Syphilis, Rheumatologic condition etc.