10/22/24 Morning Report with @CPSolvers

*"One life, so many dreams" **Case Presenter**: Bayan Al Zoabi **Case Discussants**: Aaron Berkowitz (@AaronLBerkowitz) and Aye Thant (@AyeThant94)*

CC: 4 days of progressively worsening headache and a seizure

HPI: 33 year old male p/w new onset headache progressively worsening for 4 days and generalized tonic-clonic seizure. The seizure was witnessed by his roommate and lasted 2 minutes. Prior had a street fight with feverish sensation.

ROS: Generalized back pain, dizziness, blurring of vision and photophobia worsening for 2 days. Severe nausea leading to vomiting x3.

PMH: Occasional migraines

Meds: Ibuprofen and paracetamol PRN for his migraines.

Fam Hx: Father DM and HTN

Soc Hx: Ex-convict. Imprisoned for 1 year. Released in 2017.

Health-Related Behaviors: No EtOH, no smoking or drugs.

Allergies: None

Vitals: T: 38.2 (100.8 F) C **HR:** 103 **BP: RR:**

Exam:

Gen: Well groomed, in pain, eyes closed.

HEENT: Neck stiffness, bite marks in the L side of the tongue.

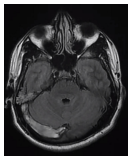
Abd: Bruises consistent with history of fight.

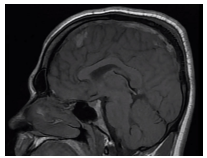
Neuro: GSC 14/15 E3V5M6. (eyes closed but open to verbal command). Conscious, alert and oriented x3. Pupils: no ptosis, right 2mm, left 1mm sluggish. CN: Binocular diplopia on lateral gaze, weakness of eye abduction bilaterally. Mild right-side facial deviation.
Motor: weakness in the Left upper and lower limbs ⅘. Gait wide based.
Fundoscopy: bl optic disc swelling.

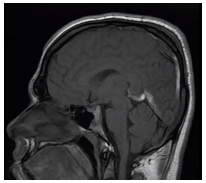
Notable Labs & Imaging:

Hematology:
WBC: 21k (88% neutrophils)

Imaging:
EKG: Tachycardia
CXR (suspicion of TB meningitis): normal
Spinal X Ray: normal.







Deteriorated, agitated and seized again. He was started on Keppra, ceftriaxone and vancomycin.

CT Head wo contrast: Edema, hyperdensity of R transverse sinus.

MRI (Day 3 of admission):
Vasogenic edema, Right thalamic Infarct, thrombosis of the R Transverse, sigmoid and straight Sinuses. Opacification R mastoid Air cells.

Dx: Extensive cerebral venous sinus thrombosis 2/2 mastoditis
Patient was started on heparin and switched to linezolid and moxifloxacin

Problem Representation: 33M p/w acute worsening headaches, tonic-clonic seizure and signs of ICH. Exam showed binocular diplopia, L side hemiparesis and optic disc swelling. CT wo contrast showed hyperdensity of the R transverse sinus.

Teaching Points (Anmolpreet):

I] Headache: Primary (Migraine, Tension, Cluster-rare) vs **Secondary** → *caused by an underlying process*:
1. **Inside the head:** brain, meninges, ventricles
2. **Outside the head:** eyes, nose, mouth, jaw
3. **Systemic**: vaccines, flu

Red flags: SNOOP → systemic s/s, neurological s/s, sudden onset, onset after 40 years, change of headache pattern. Character of headache, tempo of onset, aggravating/relieving factors, context (HIV, cancer, hypercoagulability)
Do you wake up at night with headache?
Change in pattern/ character of headache?
Patient: ***Acute, progressive, seizure*** → DDx: infection, venous sinus thrombosis (increased ICP). [NEXT STEP: *CT Head*]

II] Framing bias: when people make a decision based on the way information is presented, could be a meningitis case→ but being related with trauma.
But if related: we can think of a skull fracture, meningitis too!

III] Lucid interval: (theoretically) a temporary period of time after head injury when patient is symptom-free.

IV] False localizing sign: can lead to incorrect diagnosis; and can occur in the context of raised ICP and spinal cord lesions.

V] Anisocoria: *difference in size of pupils*: need to decide which is abnormal.
Small pupil + ptosis : Horner's syndrome → oculosympathetic paresis.
Large pupil + ptosis : 3rd nerve palsy (a/w deviated pupil)

VI] Cord sign: a CT scan finding → hyperattenuating, cord-like lesion in brain indicating cerebral venous thrombosis

VII] Treatment : anticoagulants (just like thrombus in any other part of body)
But if intracerebral hemorrhage + venous sinus thrombosis: they can also benefit from anticoagulation ***when the cause of haemorrhage is venous sinus thrombosis.***