# 04/1/24 Morning Report with @CPSolvers

***"One life, so many dreams" Case Presenter**: Clara Warden **Case Discussants**: Youssef Saklawi (@saklawiMD) and Kirtan Patolia (@KirtanPatolia)*

**CC**: 55 yo F presenting with intractable headache.

**HPI**: She had been in the ED 3 times in last 5 days for similar headache. She received tx with ketorolac and symptoms resolved. At home, medication helped but symptoms returned anyway.

This morning, she had a headache along with abdominal pain and vomiting, unsteadiness with walking, nausea, blurry vision.
**HPI:** Chronic left side temporoparietal headaches that were presumed to be migraines, which were treated effectively w/ ibuprofen but stopped due to GERD. Imaging showed possible cyst. Repeat MRI showed mild prominence of the ventricles and microvascular changes.

**PMH**:
GERD
Hyperlipidemia
preDM
Chronic left-sided temporoparietal headaches

**Meds**:
Metformin, sumatriptan

**Soc Hx**:
Originally from Peru, lives with daughter, took care of mother while she had a long disease, presumably TB.
**Health-Related Behaviors**:
no tobacco, no alcohol consumption

**Allergies**: NKA

**Vitals: T:** afeb **HR:** 60's **BP:** 140/70 **Sat:** normal
**Exam:**
**Gen:** slightly uncomfortable
**HEENT:** eyes and pupils normal, normal neck movement
**CV & Pulm:** normal
**Neuro:** no photophobia, intact cranial nerves, no deviation, normal strength, narrow based gait, neg romberg, normal sensation and reflexes
**Extremities/skin:** normal

## Notable Labs & Imaging:

**Hematology & Chemistry**: normal
**HIV:** neg

**Imaging**:
CT head: no acute intracranial abnormality
CTA: lateral ventricles were dilated, bilateral superior cervical canal dehiscence, suprasellar mass. No mass effect, no stenosis
Head MRI: unchanged size of the suprasellar lesion, incomplete suppression, leptomeningeal enhancement at the base. Concerning for normal pressure hydrocephalus.

CSF:
1° tube → clear, 26 RBC, 110 nucleated cells (76% lymphocytes, 2% eos).
2° tube → 163 nucleated cells (52% lymphocytes 28% monocytes), low glucose, high protein 165. OP: Normal
Bacterial cultures: neg, Fungal cultures: neg, TB culture: no growth, AFB PCR: neg, Syphilis: neg
CT Chest: 6mm nodules in lung

***She was discharged but headache came back a few weeks later. All tests were redone. Quantiferon was positive, so she was treated for TB meningitis***

MRI: unchanged
CSF: lymphocytic pleocytosis, low gluc and high prot. Syphilis, HIV, Whipples, Bartonella, Lyme, Coxiella, Brucella, Histo → neg
Neurocysticercosis: positive
Tx: albendazole + steroids

**Dx: Extra parenchymal neurocysticercosis**

**Problem Representation**: 55 yo F patient from Mexico & w/ TB exposure, who looks relatively well presenting with subacute signs of elevated ICP & found to have basilar leptomeningeal enhancement as well as known calcified lesion.

## Teaching Points (Jia):

**-Headache**:
>Primary cause (medication, migraine) vs
>Secondary headache: **SNOOP** mnemonic (red flags for secondary causes: **S**ystemic, **N**eurological, **O**nset sudden, **O**nset after 40 years old, and **P**rogressive symptoms)
**Anatomy** is the key: venous sinus, neuro, meninges, blood vessels (HPI can provide clues: blurry vision, location of headache, etc.)
* BEE syndromes: Immune mediated conditions affecting the **B**rain, **E**yes and **E**ars.

- **Ataxia**: commonly seen as wide base (narrowed based can also be seen in mild ataxia)-> ventricular dilation-> hydrocephalus ->ICP
Cause of ICP: communicating vs non-communicating
symetric dilation vs asymmetric dilation
New-onset migraine at old age: always suspected whether it is a "true" migraine

- Neuro workup: No obvious sign of herniation in imagine -> lumbar puncture
**Dilated ventricles:** CSF circulation related or a mass effect
**Mass**: malignancy, possible infectious cause: TB (histo), nocardia, mycosis -> **exposure history!**
**Leptomeningeal enhancement:** Meningitis? Infectious pathogen: fungal mentioned and other non-classic pathogen: Whipples, Bartonella, listeria, HIV, Lyme, syphilis, amebic

**- CSF: Hypoglycemia**
- Check serum glucose: whether the CSF hypoglycemia is true
- Infectious etiology: TB, fungal (crypto), nocardia, brucella, classific bacteria; non-infectious etiology: lymphoma
**Lymphocytosis**: malignancy, sarcoidosis, TB and TB mimickers (Listerias, crypto), neurosyphilis, neurocysticercosis

- **Neurocysticercosis**: seizure (most common clinical manifestation 80%), headaches (30%, usually indicate the ICP, hydrocephalus and meningitis, depending on how the lesion block the CSF circulation), recurrent syncope; CSF finding can reveal elevated protein level
Reflection in Anchoring: step back and think twice about the case