8/15/24 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Vinícius *(@vini.barzon) Case Discussants:* Rabih *(@rabihmgeha) and* Youssef *(@saklawiMD)*

CC: **51y/o male** presents to the ED after a **psychiatric episode** one day ago (undressed at work)

HPI: pertinent negatives: loss of consciousness, behavioral changes, headache, seizure, focal neurological deficit, GI symptoms, urinary symptoms and psychiatric disorders

PMH: out of regular care for several years

Meds: no meds

Fam Hx: not significant

Soc Hx: born and raised in Brazil, owns a dog, no travels, MSM, lives with mom, works at the airport

Health-Related Behaviors: no substance/alcohol/tobacco abuse

Allergies:

Vitals: T: nl **HR:** wnr **BP:** wnr **RR:** nl-150/100 (**oscillating**)
Exam: Gen: HEENT: PERRLA
CV: nl **Pulm:** nl **Abd:** nl
Neuro: alert and oriented to place not to time, confused, agitated, **fluctuating mental status:** delirium and nl, short-term and long-term memory intact, cranial nerves intact, cerebellar function nl, coordination nl, normal deep tendon reflexes, bladder & bowel function nl
Extremities/skin: mildly dehydrated

Notable Labs & Imaging:
Hematology: CBC nl
Serology: HIV pos, CD4 count**: 194,** viral load: 142.000**;** Syphilis neg
Sputum TB neg.
Imaging:
Endoscopy: **Candida esophagitis**
CT head: lobulated R hyper-enhanced **frontoparietal** region, sulcal effacement, **leptomeningeal enhancement**, **vasogenic edema**, small homogeneously nodules at high/mid R parietal convexity w/thickening dural -> inflammation
CSF: 80 cells, 97% **lymphocytes**, protein 172, Glc 31, Lk: 22, Adenosine Deaminase nl 3.5, TB: neg, JC V neg. Crypotoc neg. Beta D glucan neg, Toxo neg. Lateral flow lipoarabinomannan test: **LF LAM: pos**

Dx: **Neuro TB**

Problem Representation: 51y/o gentleman presents with fluctuating mental status w/episodes of delirium with PMH notable for untreated HIV is found to have isolated meningoencephalitis and a lymphocytic pleocytosis in CSF.

Teaching Points (Yuki)
Psychotic episode-> mimicker of autoimmune, Infection, delirium
Schizophrenia: Mean age presentation 21; positive family history
AMS→ Intrinsic (brain; tumor seizure) vs extrinsic (referral issues hyponatremia) dopaminergic;cocaine; methamphetamine
AMS w/ vs w/o focal deficits
focal neurological deficits:s/o part of brain affected-> Focal motor sensory breaks symmetry
Agitated behavior-> frontal lobe syndrome
basal ganglia syndrome-> Structural vs substance, medication, metabolic → disruption of corticobasal circuits leading to AMS.
Sexual behaviour: HIV
Oscillating mental status: seizure;encephalitis involving limbic
-**Managing agitating pt in ER**: patient safety issue? Provider safety issue? Medical issue?
Antipsychotic meds are beneficial only for primary psychosis
HIV: CD4 count-> not reliable in acute infection; CD4 % is helpful
Low CD4 increase risk for Mycobacterial and viral infection and Susceptibility for malignancy;
HIV w/ psychosis; Space occupying(bacterial) vs non space occupying(HSV encephalitis, CMV, HIV encephalitis)
Blood test in HIV: serum cryptococcal, RPR, Toxo IgG, AFB culture
Discordant result: pretest probability of the disease, morbidity of the disease.
Leptomeningeal enhancement in immunocompromised:TB; fungal; lymphoma
HIV plus isolated brain mass→ CNS toxo vs primary CNS lymphoma
-> Brain biopsy unless high suspicious for Crypto; TB; chagas (lower CD4)
Chest imaging: look for TB before initial therapy
Still TB is the most common infection dx world wide although diagnostic test will take time.
TB-HIV coinfection: the leading cause of death worldwide among people w/ HIV
Methods to diagnosis TB:culture takes time but Nucleic Acid Amplification tests(NAATs) offer quick accurate results.
LF-LAM test valuable point-of-care tool for people with advanced HIV, effective for initiating TB treatment (neg LF-LAM doesn't rule out active TB)