03/01/24 Morning Report with @CPSolvers

***"One life, so many dreams" Case Presenter**: Amal Naji (@amalnaji495) **Case Discussants**: Rabih Geha (@rabihmgeha) and Reza Manesh (@DxRxEdu)*

CC: 60 y/o F obtunded

HPI: Intubated emergently. Found to be obtunded and with low SpO2. Copious secretions on glidescope.

3 months ago: PCP consult for intractable headaches
CT brain hypodensity in the cerebellum
CT abdomen cysts in spleen and liver
Medicated with **steroids**

2 days ago was hospitalized
Headache worsened
ROS: Nausea, vomiting and poor oral intake

PMH:
DM on insulin
HTA
AFib

Meds:
Steroids
Lispro
Lantus
Atorvastatin
Lisinopril
Rivaroxaban

Fam Hx:
Mother: colon cancer
Parents: heart disease

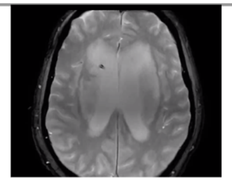
Soc Hx:
Moved from Indiana w/ husband

Health-Related Behaviors:
No tobacco, recreational drugs.

Allergies: No allergies.

Vitals (on patient presentation): T: 101.5 F (38.6 C) **BP:** 119/64
RR: 22 SpO: 60% on RA
Exam:
Gen: Obtunded
CV: no murmurs
Pulm: no lung sounds heard
Abd: wnl.
Neuro: obtunded, pupils reactive to light, no gag reflex, babinski + bilaterally
Extremities/skin: no clubbing, cyanosis and edema

Notable Labs & Imaging:
Hematology:
WBC: 17900 Hgb: 12.4 Plt: 151k
Chemistry:
Na: 123 K: 4.2 Cl: 105 HCO3: 25 BUN: 17 Cr: 0.89 glucose: 127 Ca: 8.4 Mag: 2.1 AST: 42 ALT: 23 Alk-P: 57 Albumin: 4.1
GFR >60 Troponin 0
Imaging:
EKG: SR **CXR:** Diffuse interstitial opacities Echocardiogram: nl
MRI: extensive enhancement hyperintensity that is diffuse Restrictive diffusion posterior limbs pons. Hydrocephalus
Deteriorating compared to previous CT brain.
CT CAP: acute on chronic inflammatory process in the lungs.
No process in Abdomen, Pelvis.
LP: 535 nucl cells 89% neut >200 protein 17 glucose. Viral and bacterial PCR NEG Criptococos NEG
BAL: budding yeasts
Urine histoplasma antigen +



Dx: Histoplasma meningoencephalitis

Problem Representation: 60 yo F admitted 2 days ago with intractable headaches becomes obtunded requiring intubation was shown to have meningoencephalitis secondary to histoplasmosis.

Teaching Points (Tansu):
Obtundation → Tempo 👑 →Hyperacute: 3S; Acute: Inflammatory; Toxic/metabolic: Any time course.// Hospitalized patient→ Pt can be this obtunded if they did not give us enough time to interfere. → Probably hyperacute.// Other clues: Vitals, neuro exam. Febrile→ prioritize inf. meningoencephalitis, or inf. foci somewhere else. Non-inf: e.g. neuroleptic malignant syndrome. // Brain stem issue w/ (-) gag reflex; Babinski (+) → Basilar (lower level) meningoencephalitis. // Brain + lungs are both down → Decide which one is more down→ Here, seems to be neurological event → pulmonary syndrome.
SCAN the patient: Sugar, CT/CTA (to look for basilar thrombosis), ABG/VBG, Narcan (OOD).
Primary vs. secondary HA:
- Extra-headache signature
- 4T: Trauma, Thinner (blood), Timing, Triggers (comes and goes w/ anything you do, secondary HA).
- Anatomical Approach: Dura, vessels, ventricles, parenchyma.
- **Steroids**: suppression of immune sx. → broadens infectious bucket, makes vessels fragile.
- **PMH of DM in this pt:** Poisons neutrophils, makes you prone to extracellular organisms (bacterial, fungal).
- **Management:** Imaging (focal neuro finding, obtundation) before LP. Blood testing (50% pts w/ pyogenic inf has + blood testing). HIV, Syphilis, serum Crypto-Ag.
- **Time course & COG:** Acute vs. Subacute; Intracranial vs. Systemic (2x2 table). Gadolinium enhancement in brain when there is disruption of the BBB. MRI → Obstructive hydrocephalus: Cryptococcus. Mycobacterial, Fungal. Subacute, basilar meningoencephalitis (isolated vs. diffuse?)