11/09/23 Morning Report with @CPSolvers

"One life, so many dreams" **Case Presenter:** *Dr. Parimala* **Case Discussants**: *Rabih (@rabihmgeha) and Maryana (@maryanamribeiro)*

CC: Jerky movements
HPI: 72 y/o male presented w/ 2 days of jerky movements in RUL for 3-4 ep/day, followed by heaviness and weakness of RUL (unable to grip anything w/ R hand). He also had new onset of dragging of his RLL. Hx of Mild headache.
H/o fall on the face and nose bleed at the hospital; discharged w/ anticoagulants + antiepileptics
He came back to the hospital 2 days later with fever (100F), nausea and multiple seizures followed by postictal drowsiness and weakness of right upper and lower limbs and impaired speech and difficulty breathing.MRI: A well circumscribed intra-axial mass lesion in the left postcentral gyrus with peripheral contrast enhancement. Minimal bleed within the lesion.
EEG showed - multiple electrographic seizures, left centroparietal slowing and LPDs.
Repeat MRI 2 days later showed increase in size of the lesion and increased blood products within the lesion. Contrast enhancement was minimal in the lesion margins.
PET-scan: increased FDG uptake in the margins of the intracranial lesion; incidental lesion on RLL

PMH: DM
Profuse nasal bleed on 2nd admission, hx of multiple episodes of epistaxis(alt. days), family hx of epistaxis, AVMs in GI

Meds:Aspirin 300 mg, Rosuvastatin 40mg (usual dose 20 mg), anti-seizure meds, anti-diabetics

Social Hx: works in insurance, no h/o smoking or alcohol use; from India

Travel Hx: unknown
Allergies: none

Vitals: T: 100F HR: 80 **BP: 147/68 RR:** 16 **SpO2: 89% on RA**
General random blood sugar (GRBS): 240
Exam: HEENT: mild b/l exophthalmos
CVS: wnl; **Pulm:** b/l fine crepts; **Abd:** Soft, non-tender
Neuro: drowsy but arousable, confused but obeying commands, Comprehension is mildly impaired with slow speech and word finding difficulty (pausing and searching for words); paraphasias, decreased fluency, repetition preserved, pupillary response normal, mild R horizontal gaze restriction, no nystagmus
Motor exam: Right LL 3-4/5, Right UL 4/5, Left UL and LL 5/5; Mild Right UL apraxia and ataxia
Sensory + Cerebellar normal

Notable Labs & Imaging:
Hematology: WBC: 25.5 k; ESR: 100 TSH: 1.3 Urea: 35
Chemistry:
Na: 127 Ca:7.3 Phos: 3.2
Continuous overnight EEG: no new seizures
Imaging:
CT Brain: no inc. in size from 2 days ago
CXR: increased bronchovascular markings
Repeat MRI:
Left side parietal lesion with diffusion restriction and blood products with **subdural collection** both of which have increased since previous MRI scan. Lesion shows **ring pattern enhancement** with adjacent leptomeningeal enhancement. Mass effect + there were a few tiny areas of **DWI restriction (**?embolic infarcts) in the **R cerebral hemisphere.**
CTPA: AVM

Dx: L Parietal abscess w/ frontotemporal empyema and R lung middle segment AVM & Hereditary Hemorrhagic Telangiectasia

Problem Representation: 72 y/o male with PMH of DM, on Rosuvastatin and Aspirin, presents with 2 days of jerky movts., impaired speech, difficulty moving R limb, fever, hypoxia and a central brain mass on MRI w/minimal enhancement.

Teaching Points (Jia):
- Jerky movement
1) R/O sacred things first (like strokes), and then think about common things
2) More info: Characteristics (mobilize across the joint helps to differentiate from tremor), time course (acute/chronic), associated sx (neurological dysfunction)
3) Possible etiology: seizure/myoclonic/dystonia, often with sustained Sx /movement abnormality
- Jerky + focal neurological Sx
Brain mass - Does the Sx map with findings?
Differential of brain mass: Tumor (CNS vs metastasis), infection-abscess, autoimmune disease (demyling disease), subacute ischemic stroke (location, risk factors)
+fever and lung lesion in this case: Cancer with complication, IE, lung/brain abscess, other possibility?
- Exophthalmos (Space-occupying disease!)
Begin cause (Graves disease, especially in old people, glycosaminoglycans accumulation) , cancer , infection, trauma (orbital hematoma)
Gaze restriction! Space occupying disease or neuromuscular cause?
+orbital finding in this case: Does the brain process involve the cavernous sinus (infection, thrombosis)?
- **Infection (quicker evolution, +WBC, +emboli findings in MRI)** vs malignancy
Where: lung, shower of emboli (endovascular source: marantic, infection)
- Epistaxis
Irritation from cortisol and dry air; fragile vascular (vasculitis, old people)
Low Saturation + nose bleeding (vessel clues) + lung lesion
HHT (hereditary hemorrhagic telangiectasia)!!!: AD, unique feature: recurrent epistaxis; AVM impairs the lung function in cleaning bugs leads to brain abscess (infection enter through a vascular way)
More Info: History of epistaxis (all season, very often, family history) + AVM in lips and hands in PE