10/28/24 Morning Report with @CPSolvers

*"One life, so many dreams" **Case Presenter**: Linh Taylor (@) **Case Discussants**: Alec Rezigh (@ABRezMed) and Austin Rezigh (@RezidentMD)*

CC: AMS

HPI: Middle age man presented with fevers, meeting 3 out of 4 SIRS (fevers, tachycardia, leukocytosis) criteria with elevated lactate and AKI, consistent with severe sepsis. Most likely source is RLL pneumonia and diabetic skin and soft tissue on left transmetatarsal site. He was treated with vancomycin and pip-tazo, narrowed to pip-tazo after MRSA and NAAT negative. On hospital day 3, patient was found to be altered, lethargic. Used meth 2 weeks ago (nose).

AMS EPISODE: Naloxone was initiated - intubation was not needed (strong gag reflex). Transferred to step down unit for closer monitoring. RR 5. 25 sec period of apnea. Sat 93% during apnea. Hypertension was not treated during hospital stay d/t AKI. Baclofen was held during this episode. **Three days after AMS episode, patient was found completely normal, talkative, creatinine down trending to 1.8.**

PMH: CAD, PCI 2021, CKD - 3 baseline Cr 1.5
Left TMA, PAD, below knee amputation, DVT - apixaban, quadriparesis - cervical myelopathy.
No OSA

Meds: amlodipine, atorvastatin, hydralazine, isosorbide, baclofen, metformin, insulin, dihrydammine, Loratadine PRN, trazodone PRN, constipation meds

Fam Hx: None

Soc Hx: adult foster care home, wheelchair bound, able to move around

Health-Related Behaviors: substance use disorder (methamphetamine)

Allergies: anaphylactic reactions to amitriptyline, bee venom.

Vitals: T: 37.1 **HR:** 87 **BP:** max. 200 syst. **RR:** 22 91% RA. RR 5

Exam:

Gen + Neuro: AO x4, answering questions - > obtunded, can't follow instructions, gag reflex. Can't squeezes hands, no leg movements, pupils equal round and reactive.

CV: wnl **Pulm:** wnl **Abd:** wnl

Notable Labs & Imaging:

Hematology:
CBC, lactate, troponin, Mg - nl ABG - nl. Urine drug screen neg.

Follow up one day later:
Nl CBC. downtrending Cr

Chemistry:
Cr: 2.8 (1.3 day before)

Imaging:
CT head no acute intracranial changes
AKI - prerenal due to sepsis. Cr improved after fluid resuscitation.

Dx: Baclofen toxicity

Problem Representation: Middle age M w/ PMHx of CKD, CAD, DVT, meth abuse, p/ w/ SIRS criteria - pulm. Etiology, obtundation, apnea episodes and AMS non responsive to naloxone, completely resolved 3 days later. Patient revealed to have Baclofen toxicity.

Teaching Points::

Approach to AMS:
Initial thoughts ->MIST (metabolic, infectious/inflammatory, structural, Toxic) -> what is unique here -> Status on disease progression -> is this the Consequences of inflammatory syndrome/underlying disease or is this the Consequences of treatments
Further we need to Define the Altered mental status -> looking for focality vs global phenomenon, Brain as bystander vs the focal point.

Immediate management vs diagnostic workup
DONT -> Dextrose, Oxygen, Naloxon, Thiamine
SCAN -> sugar, CT Head, ABG/VBG, Narcotics(empiric naloxon)
Lack of response to naloxone -> do we just need a higher dose?

Patient Specific considerations
Importance of Mental baseline, orientation, insight to condition,
Susceptibility to delirium given the multifactoriality of presentation
Wheelchair bound -> pressure points -> importance of physical exam -> how to adapt to the conditions of the patient
Hypertension -> want to know the past trend, *the rate of rise is the most important factor here*
Following the course of the disease -> self-resolving conditions -> keep an eye out for the tail end of things like non-convulsive seizures

Medications Review
Side effect of drug vs withdrawal vs intended effect of drug
Apixaban -> spontaneous bleeds, bleeds following minor trauma, DVT and hypercoagulation following missed dose
Baclofen -> significant withdrawal syndrome
Insulin -> risk of hypoglycemia given the status of kidneys
Withdrawal syndromes of their recreational drug use
Cefepime, meropenem, neurotoxicity -> asterixis, jerky movements

Structural
Brain lesion suppressing the respiratory centers, hypertension & rise in ICP Pupil exam is key here
Vascular and bleeding risk factors are prominent here
Don't forget **Seizures** -> sub-radiological structural

Apnea overlap with AMS
Low respiratory rate -> Substance (Opioids, IV Drugs, acute accumulation of sedative
In the setting of AKI although the degree of function change in this case is not matching up, check for drugs from outside sources), lesion in the brain, something intrinsic in the respiratory center (sleep apnea)
Cyclic disorders breathing -> Cheyne-Stokes respiration is a cyclical breathing pattern seen in stroke and brain injuries, caused by delayed CO2 feedback; diagnosed via sleep studies and imaging.