8/19/24 Morning Report with @CPSolvers

***"One life, so many dreams" Case Presenter**: Kirtan Patolia(@KirtanPatolia)* ***Case Discussants**:* Matthew Stutz

"The hunting shadow"

CC: AMS

HPI: 59 yoM w/ ESRD and HTN was found unresponsive by family members at home. He was confused and was found to have bilateral wrist lacerations with empty bottles of diphenhydramine, nifedipine, and carvedilol besides him. He has been having just one hour of sleep at night for last two weeks. Has not been able to do his peritoneal dialysis at home. No delusions or hallucinations reported. No suicidality noted

Vitals: only bradycardia. Labs: Na: 125, hyperkalemia 5.5, bicarb 20, BUN 120, Cr 14, TP 4.8, Alb 2.6, LFTs wnl, Hb 6.

EKG: Polymorphic VT, Cardiac arrest, ROSC, Intubation, and extubation. Now has fever up to 38.4, still confused and disoriented.

PMH:
ESRD (not been able to do his peritoneal dialysis at home)
HTN

Meds:
Losartan
Nifedipine
Carvedilol
Diphenhydramine

Soc Hx:
occasionally smoking and social drinker,
lives w/ family,
started missing his PD sessions (last 2 weeks),
from China (last visit 2y ago)

On Day 4 : Vitals: RR 16/min, bradycardia resolved, no fever
Exam: Gen: Alert and oriented to self only, not able to give coherent responses; **CV:** normal RR, no murmurs, **Pulm:** crackles in multifocal locations

Notable Labs & Imaging:

Hematology:
WBC: 3000 Hgb: 8 Plt: 60k; PBS: wnl

Chemistry:
Na: 136 K: 4.8, Total-Bilirubin 3 (direct 2), AST: 200 ALT:110 GGT: 500 Alk-P:437
LDH: 373, CRP 12 Ferritin 1000

Coags: PT 18, INR 1.6, aPTT 50, Fibrinogen: high, D-dimers: slightly elevated

Imaging:
CXR: bibasilar opacities, possible aspiration PNA
CT chest/abdomen: b/l GGOs, b/l pulmonary consolidations (R>L), no pleural effusions, no PE, Hepatomegaly, cholelithiasis w/o cholecystitis; TTE: EF 35-40

Follow up:
ABx: Vanc + Cefepime → AMS not improving → Change to Zosyn Vanco → Vanco + Meropenem
Total. Bili 5 (direct 3), AP 500, GGT 750, AST + ALT wnl
CBC: Worsening pancytopenia: WBC 2.5, Hb 7, Plt 75k
Coags: PT 20, INR 2, aPTT 55, high Fibrinogen, CRP 5, Ferritin 3k
Repeat TTE: EF 52-55%, Repeat CT-scan: Nodular consolidations & GGOs in lungs (R>L), US Liver: Cholecystitis
ID work-up unremarkable for: Galactomannan-Ag, 1.3 ß-D-Glucan, Urine-Histo Ag; PCT: slightly elevated; no growth on blood and urine cultures
Rheum Panel (ANA, ANCA, complements, RF, CCP, CK): wnl
Total-Bili 7, AP 700, GGT 800, AST 300
Worsening pancytopenia (WBC 1k, Hb 7, Plt 50k), Ferritin >7k, TG 600, Fibrinogen: low
Lung infiltrates still worsening despite Vanc + Meropenem
BM biopsy: diffuse granulomatous inflammation, caseating granulomas, severe hemophagocytosis
Patient unfortunately passed away. AFB in bone marrow post mortem came back positive
Final dx: HLH 2/2 disseminated Tb

Problem Representation: 59yM w/ a PMH of ESRD on PD, p/w AMS & suspected suicidal attempt, unremarkable toxicology studies, fever not responsive to antibiotics, worsening pancytopenia, hyperferritinemia, b/l GGOs and pulomonary consolidations.

Teaching Points (Parisa):

1.Fever + AMS →**CNS** infx(LP)/stroke;hemorrhage/seizure(EEG); **hospital acquired infx** → lines (blood, urine); respiratory CXR (aspiration PNA); **medication exposure** (cefepime neurotoxicity); **Clot risk** (extremities doppler); **shock**

2.POST-ROSC we need to control temperature more aggressively; special attention to avoid fever.

3.Lung CT Patterns: **GGO** → Pus; fluid (pulmonary edema/HF/ RF); Blood(DAH); Protein (ARDS); Cells (eosinophilic pneumonia organizing pneumonia); pulmonary contusion ; **GGO vs consolidation**: consolidation you can not make lung architecture
Crazy paving: GGO plus Interlobular septal thickening (PAP;ARDS:DAH: Atypical infection)

4.elevated liver enzyme (Biliary pattern) in critically ill patients→ **acalculous cholecystitis** (HIDA SCAN) → up trending is helping in identifying **shock liver**→ ruling out tylenol toxicity ; Anti-smooth muscle;viral hepatitis

5.**Bronchoscopy** indication in ICU → Timing based on patient situation; Patients is able to tolerate procedure; there is diagnostic benefit

6. **HLH**: Fever; bi line cytopenia; TG; ferritin →confirmatory for HLH (check for soluble IL2; CD163)

7.High suspicious for TTP check adamts13 activity level

8.Granulomatous inflammation is TB; PD could act as acquired immune deficiency; sensitivity PCR 60-90%

9.**NEVER FORGET**→ Think about what underlying cause of hospitalization is; TB could present anyway; Not being shy and continue to reassess esp when patient is hospitalized for long time.