12/1/23 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter:Anmolpreet (@anugrewal19) Case Discussants:Rabih (@rabihmgeha) and Reza (@DxRxEdu)

CC: Intermittent fever for 3 weeks

HPI: 85 yoF came to outpatient clinic for regular follow up of UTI and osteoporosis. Intermittent fever 3 weeks, general weakness, reduced oral intake, fever low grade on off, documented 100 F (37.7C), 101 F max. No localizing symptoms, no abdominal pain, no loose stools, no burning micturition, rash. Broad spectrum abx (meropenem) and doxy started no response to abx. Pattern of fever continued the same way. No joint pain or deformity seen.

Previous admissions- latest 2 weeks ago- similar complaints intermittent fever, increased inflammatory markers, loose stool, vomiting, dx'd as probable UTI and acute gastroenteritis. Urine culture was negative. UTI admissions few months back UCx positive for Klebsiella.

PMH:
DM, HTN, osteoporosis, L3 vertebral fracture (calcium was found to be 6.5). Chronic hyponatremia (refractory to oral salt intake). Dx as SIADH/psychogenic polydipsia.
Meds: Amlodipine, glimepiride, capsule Vitamin D, another vit D and calcium supplement. Tolvaptan. Risperidone

Fam Hx: None.

Soc Hx: No recent travels. Suburban life in South Asia (India).

Health-Related Behaviors: No alcohol, smoking or animal exposure.
Allergies: None.

Vitals: T: afebrile **HR:** 82 **BP:** 100/70 **RR:** 18 sat 98% on RA
Exam:
Gen: ANO x3.
HEENT: Pupils normal, bilateral normal size reacting, no JVD. No icterus, normal conjunctiva, palpable cervical LAP in the posterior triangle.
CV: RRR.
Pulm: Unremarkable
Extremities/skin: No RA type deformity.

Notable Labs & Imaging:
Hematology:
WBC: 22k to 10.5k (PMNL predominant 56%, absolute lymphocyte count high)
Hgb: 11.3 MCV: 72 Plt: 538k
Chemistry:
Na: 134 K: 4.06 Cl: 90 BUN: 8 Cr: 0.97, Glucose: 113 Ca:9.3 Phos: 3.7
Procalcitonin: 0.2 ESR: 65, CRP: 172.5, uric acid LDH: 211 Ammonia: 63.1 AST: 155 ALT: 124 Alk-P: 222, Albumin: 3.5 Protein 8.3 GGT: 65, total cholesterol normal
UA: Trace proteinuria.
Leptospira IgM positive, T3: 48 (low) , T4, TSH: normal. HIV, HCV, HBV: negative. Urine cx: neg. Typhoid fever: widal test normal, TST <10 mm (negative). Scrub typhus negative IgM. RF: positive, ANA positive, C4 mildly high, C3 normal.
Imaging:
CXR: Blunting on the R-side, cardiomegaly, water bottle configuration.
Echo: mild pericardial effusion, EF 45%.
Chest ct w contrast: moderate-severe pericardial effusion and thickening (suggesting pericarditis), mild bilateral pleural effusion, GGOs on RLL & posterior segment of RUL. Atelectasis, small area of consolidation on superior segment of RLL. Enhancing pretracheal LNs (12 mm). ANA reflex-test: neg. Blood cx: (-). Microscopic exam LN bx: epithelioid cell granulomas. Pericardial tap (exudative): hazy, yellow, glucose: 44, LDH: 1425, protein: 4. Cytology: (-). Inflammatory cells +. AFB smear of pericardial fluid neg, wbc 2000 (lymphocyte predominant), AFB culture positive for MTB complex.

Dx: TB pericarditis

Problem Representation: 85 yoF with PMH of DM, HTN, osteoporosis, recurrent UTI, hyponatremia p/w intermittent fever for 3 wks. She was found to have localized LAP, high inflammatory markers, pericardial and pleural effusions.

Teaching Points (Jia):
-**Subacute fever unresponsive to abx**, can't rule out infectious etiology: whether the abx came to the right place? (visceral abscess)
-Fever of unknown origin: 1.duration of 3 weeks, 2. work-ups to find the origin;
- Non-infectious inflammatory condition: autoimmune (giant arteritis in old pts), malignancy
- **Hyponatremia:**Urine Osm is useful to differentiate psychogenic (low) and SIADH (high), the time course of infection, abx, urine sodium, uric acid and osm is importïant. Other etiology: malignancy, AI
- **Localized LAD:**
whether it is a local cause: infection/cancer (EBV nasopharyngeal cancer) - think about the drainage;
or a tip of iceberg (disseminated LAD)?
-Lymphocytosis
Cause: Infectious mononucleosis(EBV, HIV, CMV, toxo, smear- atypical lymphocyte); lymphoma; DRESS syndrome (eosinophile, rash)
- **Lab:** signal or noise?
leptospirosis IgM: acute process, positive Igm is confounding; **TST:true neg? or the immune system doesn't function well;** ANA: consider pt's age and complement
- **Diagnosis:** Pericardial effusion and thickening + Disseminated LAD + Systemic inflammatory process
Infection (TB: clues in the case: SIADH, thrombocytosis, AMS) vs cancer (solid/liquid tumor) vs autoimmune (age doesn't fit)
Pericardial fluid test neg AFB-> diagnostic treatment?
Take away: how to interpret the clinical and investigation findings? Core data vs decoration.