



11/6/24 Morning Report with @CPSolvers



“One life, so many dreams” Case Presenter: Elena (@) Case Discussants: Steph (@StephVSherman) and Zaven (@sargsyanz)

CC: Fever, Confusion, and Rash

HPI: 48F felt well until five days ago, when - within a few hours - she developed fatigue, nausea, diffuse whole body pain, headache, and a subjective feeling of fever.

ROS (-): chest pain, dyspnea, cough, abdominal pain, diarrhea, or urinary symptoms.

No recent traveled. Partner reports intermittent confusion.

PMH:
None

Meds:
none

Fam Hx:
Soc Hx: Lives with her partner on a farm in new mexico
With cows, sheep, and one dog, often in the fresh air, goes hunting in the forest
Does not recall any tick or mosquito bites

Health-Related Behaviors:
No alcohol or substance abuse

Allergies:

Vitals: T: 39.1 HR: 110 BP: 110/70 RR: 25 SpO2 96% on 2L NC

Exam: Gen: lethargic and sweaty

HEENT: slight rigidity and stiffness in the neck + whole body pain, hard to tell if meningism **CV:** nl **Pulm:** nl **Abd:** nl

Neuro: disoriented to time and place but not to person, slow speech, follows instruction adequately, no dysarthria or aphasia. NI pupils no focal neuro deficit

Extremities/skin: warm to touch, nl strength and reflexes, reticular non blanchable non palpable rash was found, started in the abdomen then spread

Notable Labs & Imaging:

Hematology: WBC: 6 (nl diff) Hgb: 13 (nl MCV) Plt: 38K

Chemistry:

Na, K, Cl, HCO3: nl Cr: 3.5 unknown baseline, glucose: nl AST & ALT: mildly elevated GFR 25 TBILI 2.5 direct 2.5 CK 1500 LDH 400, haptoglobin nl, no significant delta at 1 and 3 hour

Troponin slightly elevated 0.1 procalcitonin 32, CRP 113

INR 1.4, Fibrinogen 500, PTT 17 smear: **no schistocytes**, intracellular, or extracellular organism

Resp and viral panel: negative for rsv, influenza, parainfluenza and covid

UA: 2+ albumin, +3 blood, sediment 3 RBCs, 5 Wbcs, a few bacteria and a few granular cast, urine tox screen neg.

Presumptive dx of meningitis was made- Vanco, Ceftriaxone, acyclovir, and Doxy initiated. LP deferred due to low plt.

Serologies for Borrelia was neg, screening for HIV 1/2 neg

Imaging:

EKG: sinus tachycardia, **CT Head chest Abdomen** clear. **CXR:** clear

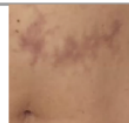
Skin biopsy: nonspecific perivascular lymphocytic infiltrate, no evidence of abscess or emboli

Blood culture: 4/4 MSSA +

TEE: good biventricular function with LVEF of 60%, moderate aortic regurgitation with a vegetation attached to the aortic valve.

MRI of spine with contrast: Spondylodiscitis

Dx: Infective endocarditis and spondylodiscitis due to MSSA bacteremia.



Problem Representation: 48 F presents with fever, confusion, and rash of 5 days duration. Labs show thrombocytopenia, elevated bilirubin, INR, and Cr, and abnormal UA. Blood cultures + for MSSA and TEE showing vegetation. Final dx: IE

Teaching Points(Hee)::

Approach for 48F with fever, confusion, rash: Gather PMH, suspect acute and systemic, confusion -> bacterial infection (e.g., CNS meningitis, encephalitis,) 48F (young age) with 2-day confusion: Apply MIST—metabolic, infection, structural, toxins. UTI

Physical exam (Rash): Purple, non-palpable, non-blanching, suggests vascular issues (e.g., vasculitis, necrosis, endocarditis, DIC, embolization, autoimmune, APS)// livedo reticularis/racemosa patterns; assess with D-dimer and coagulation studies.

New Mexico patient: Consider Coccidioidomycosis encephalitis, Rickettsia (spotted fever), Hantavirus, microvascular or hemorrhagic manifestations. Farm or animal exposure: Coxiella (Q fever), and Brucellosis

Lab: Rapid renal failure, likely prerenal; GFR 25, BP 110/70, (despite of Cr 3.5), low pyuria—consider HUS, MAHA (thrombocytopenia, no schistocytes); DIC less likely (fibrinogen acute phase reactant), leptospirosis or dengue (normal K with high Cr); consider Chest x ray, lumbar puncture, ceftriaxone (high dose), or doxycycline. // procalcitonin high (sepsis)

MSSA bacteremia with end-organ signs suggests endocarditis; assess for murmurs, skin/eye findings (Janeway lesions, Osler nodes, Roth spots) splenomegaly, neuro deficits; order TEE/Stevens-Johnson syndrome, or toxic shock syndrome// MSSA in Urine Culture

TEE: moderate aortic regurgitation with a vegetation attached to the aortic valve.

Dx: Infective endocarditis