



11/5/21 Morning Report with @CPSolvers



Case Presenter: Andrew Sanchez (@ASanchez_PS) Case Discussants: Reza Manesh (@DxRxEdu) and Rabih Geha (@rabihmgeha)

CC: Dyspnea and pleuritic chest pain.

HPI: 53yM p to ED after a 1d history of dyspnea at rest and pleuritic L sided chest pain. 1 week prior to admission had abrupt onset fevers, drenching night sweats, HA, sore throat, productive cough, myalgias which prompted COVID19 testing which was neg. Completed vaccination w/Moderna 4m prior to presentation.

ROS: Watery diarrhea 4x daily over past week. Disoriented 1d prior to presentation.

PMH: None

Fam Hx: None

Soc Hx: Frequent work related travel in NE US where he designed cubicles for large commercial buildings. Would stay at hotels. Was in New Hampshire when symptoms started.

Health-Related Behaviors: 35y of smoking. No recent sick contacts.

Allergies: None

Vitals: T:afebrile HR:122 BP:152/84 RR:24 SpO₂:89% RA → 4L O₂ w/nasal cannula to maintain SpO₂ >96% O₂.

Exam:

Gen: Diaphoretic. Speaking slowly 2/2 fatigue.

CV: Tachycardia

Pulm: Rhonchi L posterior lung fields. Egophony L lower lung fields.

Abd: Normal **Neuro:** Normal

Extremities/Skin: Diffuse muscle tenderness in LE. No skin lesions.

Notable Labs & Imaging:

Hematology:
WBC: 17300 (96%N 1% bands, no lymphopenia) Hgb:14.8 Plt:354

Chemistry:
Na:123 K:3.1 Cl:85 CO₂:20 BUN:35 (high) Cr:1.47 glucose: 110 Hb1Ac 7.1% Ca:8.3

AST: 354 ALT:140 Alk-P:60 T. Bili:0.7 Albumin:2.4
CRP: >300. D-Dimer: 4.92 (high). CPK: 3,333
Procalcitonin: 34 (High)
PCR SARS COV-2 positive, cycle threshold: 41.6 (high).
UA: 3+ blood w/ microscopy 6-10 RBC.

Imaging:
CXR: complete opacification of L hemithorax and bronchograms

Legionella Urine Antigen (serogroup 1): Positive. Sputum cultures: 3+ MRSA. Initial MRSA nasal swab negative. Sputum Legionella culture: Positive. Blood cultures w/out growth. Repeat Sars Cov2 PCR negative.

Initially treated for Covid 19 pneumonia and CAP. Covid19 treatment was stopped when Legionella came back positive, was started w/tx for legionella and MRSA pneumonia.

Final Dx: MRSA Pneumonia + Legionella

Problem Representation: 53M w/ chronic smoking history and frequent travel history p/w acute dyspnea at rest, pleuritic chest pain, watery diarrhea and myalgias. Found to have lobar pneumonia, hyponatremia and myoglobinuria.

Teaching Points (Vale):

- **Fever -> Inflammation: IMADE.**
 - Tempo is queen: Acute onset.
 - Associated symptoms: Dyspnea and pleuritic chest pain -> thorax? Headache -> SNC?
 - **Pleuritic chest pain:** PE, Pneumonia, Pneumothorax.
 - Cardiac source -> Pericarditis, aorta.
 - Abdominal -> Spleen irritation, pancreatitis, esophagus.

Who is the patient? -> Geography for tick borne diseases, but they rarely affect the lungs! -> Tularemia is an exception.

Egophony: Increased resonance of voice when auscultating the lungs. In english the word of choice to test is 99.

- Español: treinta-y-tres.
- Francais: trente-troi.
- Hindi: ek (1)

Muscle tenderness from bacterial infection:

- **Legionella:** Muscle aches are atypical for bacteria -> rhabdomyolysis -> Elevated CK and AST.
 - Blood on urine dipstick w/o RBCs suggests myoglobinuria!
 - Urine antigen covers 90% of Legionella species (serogroup 1), but not all!
- Others include: Leptospirosis, Strep, Staph, tick-borne.