03/02/24 Morning Report with @CPSolvers

***"One life, so many dreams" Case Presenter**: Dr. Vohra & Dr. Garcia from NYC H+H/Lincoln*
***Case Discussants**: Austin (@RezidentMD) and Tansu (@drtansue)*

CC: 23/M presenting w/ worsening SOB, cough x 2 weeks to the ED

HPI: On and off chills, fatigue for 1 months prior to current presentation
2 weeks ago: Cough- productive, white sputum
SOB-exertional, stay in bed most part of the day.
1 week ago - blood tinged sputum, ED visit - Diagnosed with CAP - amoxicillin, doxycycline.
No response to treatment.
Denied chest pain,orthopnea, myalgia, dizziness, neuro symptoms, palpitations, GI or GU symptoms.
Refer night sweats, chills, weight loss. Feeling of tightness in wrist and can't make a fist.

PMH:
5 month ago pain and tightness in wrist
CTS.
Rash in scalp psoriasis

Meds:

Fam Hx: Mother has DM

Soc Hx: He is from DR, has one sexual partner, no use of contraceptives reported

Health-Related Behaviors: Denies use of alcohol, drugs.

Allergies: No allergies

Vitals: HR: 130 **BP:**100/70 **RR:** 26-30 **SpO2** 91RA→99 2L
Exam:
Gen: Thin male with respiratory distress
CV: Tachycardic with regular rhythm, NO murmurs, gallops, JVD
Pulm: Scattered rhonchi, Reduced LLL BS
Abd: Soft non tender.
Neuro: No neuro deficits
Extremities/skin: Erythema rash on scalp, face sparing nasolabial folds,hands. Erythematous plaque in MCP B/L. Synovitis in MIP, PIP.

Notable Labs & Imaging:
Hematology:
WBC: WNL N75E(normal) Hgb:11.6 Plt: WNL
Chemistry: Na:nl K:nl Cl:nl HCO3: BUN: 6 Cr:0.47 AST: nl ALT:nl Alk-P: nl Albumin: 3
Troponin, proBNP: normal PT,apTT,INR- normal TSH, troponin:negative ESR:27 CRP:9
nfectious workup:COVID, RSV,Flu- negative
Blood c/s, sputum c/s: negative, Legionella, BDG, Galactomannan, coccidia: negative, Resp viral panel: Negative. IGRA: negative, SPutum AFB: negative.
Sputum Mycobacterial c/s: MAC
CPK: Normal ANA w/reflux: 1:320, aldolase, CK: negative, C3C4 normal, RA,CCP, C-ANCA and P-ANCA: negative
Myositis panel: positive for MDA-5
Malignancy screen: CT, UGI, colonoscopy - normal
Imaging:
EKG: Sinus tachycardia(HR 131), P.pulmonale,TWI inferolateral
CXR: Left LL infiltrate.
CT(PE,angio): LLL infiltrate(alveolar), LUL-interstitial, RLL GGO
Dermatology: Started on Pulse steroids x 3 days⟶ Developed new onset AF w/ RVR (Rx with Metoprolol, diltiazem drip and reverted to sinus rhythm)(Likely Steroids related)
TTE: EF 55%, Normal RV function

Dx: **Amyopathic Dermatomyositis(MDA-5 positive)**

Problem Representation:
23 yr M with no PMH treated for CAP presenting with fever, fatigue, skin rash and hypoxemia positive for MDA-5 antibodies

Teaching Points (Bettina):
- **SOB vs. cough?** Check for which is more urgent, which has a narrower ddx that you can make progress on
  - Cough can be secondary to many causes (e.g., pressure within or outside tracheobronchial tree, drugs)
    - Presenting with SOB can hint to severity
  - SOB localizes the cough to the lower respiratory tract
    - Cardio + pulmo (w/ exertion), anemia, thyroid disorders
- Understanding the host will be very important especially in a young person (immune status, chronic pulmonary disease)
- Hemoptysis may accompany many lung pathologies
- **Generalized weakness, fatigue, night sweats, chills, weight loss** ⟶ may be inflammatory picture (infection, autoimmune, malignancy)
  - Most bacterial infections start locally vs. viral/tick-borne/fungal infections
  - e.g., vasculitis (GPA), lymphoma, endocrinopathy, drugs
  - May have hypoalbuminemia, ESR is more subacute than CRP but always correlate with clinical presentation
- **Carpal tunnel and inflammatory arthritis** may be due to occupation vs. infiltrative diseases
- **Skin, lungs, joints** ⟶ vasculitis, inflammatory myositis, spondyloarthropathies
  - Also rule out infective endocarditis (can mimic vasculitis)
    - Usually in older adults, with recent infections
  - Rash on cheeks ⟶ SLE (malar rash but spares nasolabial folds)
    - Check for overlap syndromes!
  - Skin tightness ⟶ CREST syndrome; Gottron papules, mechanic's hands, shawl sign ⟶ dermatomyositis
- Normal CPK does not rule out dermatomyositis (think of **anti-MDA5 amyopathic variant**)
  - Give immunosuppressants as soon as possible
- **GGO:** Acute phase (blood, pus, water) vs. chronic phase (+protein, cells)
- **AF:** Stress, structural heart disease, drugs, coffee, steroids, cardiac inflammation, hypoxia