3/14/23 Morning Report with @CPSolvers

Case Presenter: *Youssef (@SaklawiMD) and Nidhi (@nidhipat19)* ***Case Discussants:*** *Ravi (@rav7ks) and Samy (@samymady12)*

CC: Weakness + chest pain

HPI: 39yo M p/w 2 weeks of weakness in shoulder and hips. Intermittent chest pain. First noticed weakness at work. Difficulty lifting heavy objects. b/l pain in hands and knees. Over 1 week - not able to lift arms above head. Difficulty getting up from seated position and could not comb hair. 2nd week - weakness in b/l legs. Could not lift legs or not walk on his own. Chest pain 1 week ago. Sharp pain, increased gradually. Worse at hospital. Sitting down when it started. Located substernal, heaviness and crushing CP radiating to back. Worse w/ exertion and positional changes. Some SOB when moving around.
ROS: fatigue, bottom lip ulcer, faint red rash on cheeks. Negative: weight loss, fever, chills, raynauds, urine changes, diarrhea

PMH:
Hypothyroid 2/2 hashimoto

Meds:
Synthroid - not on it for past year.
No supplement

Fam hx:
Hypothyroid in father
No hx autoimmune, CA, early MI

Soc Hx: Works as a construction worker. Born in US.

Health-Related Behaviors:
None

Vitals: T: AF **HR:** 126 **BP:** 120/80 **RR:** nl SpO2
Exam: Gen: no acute distress. Arms flexed towards body. Not able to move extremities well .
HEENT: no sceral icterus. Faint red rash on b/l cheeks, sparing NL fold. Not pruritic. Lip swelling of both lips. Bottom more swollen.
CV/Pulm: nl
Neuro: AOx4 CN intact. Motor: shoulder ⅕ strength in R, ⅘ in L Elbow: ⅘ strength b/l. Grip ⅘ b/l. Hip: ⅕ R 0/5 on L. Knee: ⅕ R, 0/5 L. Dorsiflex ⅗ R ⅘ L. Plantarflex ⅗ R ⅘ L. Equal sensation. No cerebellar testing. Reflex wnl. Neg babinski
Extremities/MSK: edema of both hands. Pain on palpation MCP, DIP. No papules or nodes. Nails nl. TTP and swelling in wrist/ knees

Notable Labs & Imaging: Hematology: WBC: 6.8 Hgb: 14 Plt: 207
Chemistry: Na: 136 K: 4.3 Cr: 0.6, rest of CMP (AST/ALT/Bili wnl)
CPK: low 42, Aldolase: wnl, ESR/CRP: elevated
Troponin: 3955, TSH: elevated 42.4, T3 nl T4 low.
Imaging: EKG: normal sinus rhythm. Low voltage and ST elevation V2-V5. CT dissection protocol: no acute aortic syndrome or PE. Fatty atrophy of b/l pector major, b/l paraspinal muscles. B/l pleural effusions. TTE: normal EF, normal valve function, moderate pericardial effusion. Called cardio: c/f myopericarditis. Rec start NSAID, colchicine. Endo consult: rec thyroid supplementation.
Troponin downtrended. 3900 >3700 > 172 > 107
ANA: 1:1280, low complement low C3, C4, C50.
HIV/RPR/HepB/C/CMV/Histo neg.
Rheum panel: anti-Jo neg, positive anti-Ro, anti-La, anti-U1RNP 684, Mi2beta antibody.
Final dx: mixed connective tissue dx w/ features of SLE/myositis/RA. Started on methyl pred w/ improvement

Problem Representation: 39yoM w/ untreated hashimoto p/w subacute progressive prox myopathy, arthalgia, pleurtic chest pain and lip swelling, found to have myopericarditis w/ pericardial effusion and CT w/ muscle atrophy w/ fatty infiltration.

Teaching Points (Debora):
CC: Hips: Do it a physical exam. Weakness: Proximal → myopathy or distal → neuropathy. Chest pain 4 + 2 + 2. Can be: Cardiac, pleuritic, change w/ positions, happens in rest. Looks more like a systemic process because of the symptoms.
HPI: Polymyositis: Muscle weakness in the shoulders and hips. Make hard for the patient to raise the arms over the head, get up from a sitting position, or climb stairs. No skin involvement has less chance to be Dermatomyositis. Pain radiates to the back → look for aortic dissection.
Hypothyroidism: Can cause proximal muscle weakness. The patient is not taking the medication can be the cause. Check the TSH. One autoimmune disease can make the patient have more.
Elevated troponin: Coronary insufficiency: ACS, chronic coronary artery disease.
Low voltage: Pericardial effusion (check for signs of shock, cardiac tamponade). Plus TSH elevated and t4 low can be hypothyroidism. And can be a infiltrate disease.
- **Difference** between **dermatomyositis and lupus:** in lupus the rash typically spares the nasolabial folds, while the facial rash of dermatomyositis involves them.
- ANA elevated (can be unspecific) + complement low: Lupus (but the patient doesn't have cytopenias, check for glomerular pathology).
Mixed connective tissue disease: Rare disease. Usually affects women (80%) in the age of 40. A molecular mimicry is involved. Has signs and symptoms of a combination of disorders — primarily lupus, scleroderma, and polymyositis. It is characterized by the presence of elevated blood levels of a specific autoantibody, anti-U1 ribonucleoprotein (RNP).
Criteria: Positive RNP, myositis, synovitis, edema of the hands, Raynaud and sclerodactyly.
- Lupus syndrome more rare on man but it is more aggressive.