5/11/20 Morning Report with @CPSolvers

***Case Presenter**: Stephen Gurley (@GurleyGuy) **Case Discussants**: Josh Morris (@JoshMedPeds), Andrea Anampa-Guzmán (@AndreaAnampaG)*

CC: Chest pain and shortness of breath

HPI: 49yo M presenting with chest pain and shortness of breath. **He developed sudden onset chest pain, shortness of breath, and diaphoresis.** The pain was **substernal** and **relieved slightly by a nitroglycerin patch**. He has never had pain like this before, and had no recent chest wall trauma.
His **shortness of breath accompanied the chest pain**. **He has had a dry cough for the preceding two days, as well as subjective fevers and malaise for the last two days**. He denies calf swelling or tenderness. No recent immobilization. **He also notes a facial rash for the last 2-3 weeks.**
In the ED: received IV Fluids, CTX and antipyretics → hemodynamic stabilization
Subsequent history: Confirmed he had seen his PCP earlier and received Penicillin G after being diagnosed with secondary syphilis shortly before the development of these symptoms that prompted presentation to the ED.

PMH:
HIV (CD4 count of 571 two years ago)
Gonorrhea urethritis ~30 years ago.

Meds:
Biktarvy

Fam Hx:
CVD in multiple family members. Father passed from MI in early 60s
Soc Hx:
Works in a manufacturing plant
Health-Related Behaviors:
Never smoker. 1-2 alcoholic beverages/month. 2-3 male partners in the last year. Occasionally uses condoms
Allergies:
NKDA

Vitals: **T**: 101.5→ 97.8 **HR**: 126 → 93 **BP**: 62/52→ 100/65 **RR**: 25 **SpO_2**: 97% RA BMI: 24
Exam:
Gen: Heavy breathing. No acute distress
HEENT: Anicteric sclera. Clear oropharynx. No LAD
CV: Tachycardic, regular. No peripheral edema. Brisk capillary refill. No murmurs
Pulm: Tachypneic, Lungs CTAB
Abd: Soft, NT, ND. No palpable masses or organomegaly
Neuro: No focal deficits.
Extremities/Skin: Multiple flesh colored papules on the face. Solitary papule on the dorsum of the penis. No inguinal adenopathy

Notable Labs & Imaging:
Hematology:
WBC: 6.9 Hgb: 12.2 Plt: 272
HIV Viral Load: 1.989 (Log base 10) CD4: 414 (29%)
Chemistry:
Na: 134 K: 3.9 Cl: 102 CO2: 26 BUN: 15 Cr:1.0 glucose:
AST: 49 ALT: 47 Alk-P: 104 T. Bili: Albumin:
Trop: < 0.03 x 2
Sputum Cx, Blood Cx, AFB, Toxo, CrAg: All negative
RPR: 1: 512 FTA-Ab: Positive
Imaging:
EKG: Sinus tachycardia. No ST changes; CXR: Normal
UA: Normal; Urine Drug Screen: Negative
CTPE: No acute pulmonary embolism. Solitary pulmonary nodule (<5mm) seen on prior imaging.
Cardiac Stress Test: normal

Problem Representation: 49 year old male with HIV on ART presented with sudden onset chest pain and shortness of breath in the setting of a facial rash and was found to be in distributive shock. An RPR and FTA-Ab were positive, with subsequent history confirming the patient received penicillin G that day.

Teaching Points (Moses):
Chest pain: emergent 4+2+2 → anatomic approach
HIV complication:
- Infectious: *expanding* DDx not *shifting* DDx.
- *Higher rate of STIs,* remember syphilis can have diverse presentations!
- **CD4 < 200** → CMV, fungi, PJP.
- **Aortitis:** Salmonella, syphilis, Bartonella.
- **GNR bacteremia** can be abrupt
- **Vascular lesions:** bacillary angiomatosis, kaposi sarcoma
- **Non-infectious:** CAD, NiCM, primary pulmonary HTN

Jarisch-Herxheimer:
- An acute febrile reaction after treatment of a ***spirochetal*** infection. Occurs in ~10-35% oc ases
- Other findings can include ***hypotension***, myalgias, rigors, worsening rash etc.
- Often self-limited without a need for intervention, but NSAIDs or other antipyretics can be used