



04/15/21 Morning Report with @CPSolvers



Case Presenter: Dhruv Srinivasachar (@TheRealDSrini) Case Discussants: Azeem Rathore (@AzeemRathore_) and Vijay (@)

CC: Shortness of breath
HPI: A 53-yo M p/w with SOB over the last month that has gotten worse. Occurs with scaling stairs. At baseline, could scale 2-3 flights of stairs without symptoms. Associated with centralized, non-radiating exertional chest pain, fatigue, and lightheadedness.

PMH: HIV (CD4 count 650, viral load undetectable; suppressed for past 3 years), Congenital bicuspid valve complicated by severe aortic stenosis and aortic insuff. underwent bioprosthetic aortic valve replacement (bioAVR) 3 years ago, CABG, HFpEF, OSA on CPAP, Fatty Liver disease, Dental crown placed 7 mon ago

Fam Hx: None
Soc Hx: Studying to be social worker, actively works with homeless population, No sexual contacts >1 year
Health-Related Behaviors: Former EtOH, cocaine (smoked), and tobacco use, quit all 3 years ago; never IV drug use, No recent travel, no pets or contact with animals/livestock, Consumer of unpasteurized dairy products
Allergies: None
Meds: Buspar, metoprolol, duloxetine, atorvastatin, emtricitabine/rilpivirine/tenofovir, ASA, multivitamin, VitD, fish oil

Vitals: T: 36.4 C HR:94 BP:110/75 RR: 18 SpO₂: 98 BMI: 31
Exam:
Gen: well-appearing, no acute distress, speaking full sentences
HEENT: anicteric conjunctiva, clear tympanic membranes, normal nares and oropharynx
CV: regular rate and rhythm, no clear S2, harsh 3/6 holosystolic murmur heard best at left upper sternal border radiating to carotids, 2/4 early diastolic murmur at left lower sternal border (new), prominent laterally-displaced precordial pulse at apex, no heave, no jugular venous distension, no leg edema
Pulm: Nml , **Abd:** Nml , **Neuro:** Nml
Extremities/Skin: Well-healed median sternotomy scar, no palpable lymphadenopathy, no other skin findings

Notable Labs & Imaging:
Hematology: WBC: 5.2k/mcL (differential is PMN 3200, bands 0, lymphs 1400, monos 300, eos 100, baso 100) Hgb: 11.6 MCV 82.7 RDW 15.3 Plt: 147 (L)
Chemistry: Na 135, K 3.6, Cl 102, HCO₃ 21, BUN 11, Cr 0.77, AST 40 IU/L (10-35), ALT 44 IU/L (10-40), ALP 95 IU/L (38-126), Tbil 0.9 mg/dL (0.4-1.2), Troponin WNL,; BNP 106.4 (2-100), ESR 74 (0-15), CRP 5.89 (= <0.8). Blood Cx: Neg at 5 days
EKG: NSR, nml intervals and qtc, **CXR:** mild interstitial edema. **CT Chest:** focal abnormal soft tissue along anterior aspect of valve replacement, **TTE:** EF 64%, normal LV systolic function, mean AV gradient 64 mmHg (15 mmHg 3y ago), AV area 0.58 cm² (1.5 cm²), Vmax 5.23 m/s (2.7m/s) **TEE:** paravalvular leak at the aortic valve annulus.
Cultures: Bartonealla. henselae IgG positive (titer 1:1024); IgM negative, Bartonealla quintana IgG negative, IgM negative, Brucella IgG positive, IgM negative, Q fever negative, Negative: Histoplasma Ag, Blastomycosis IgG, Cocci IgG/IgM, Legionella IgG, Tropheryma Whipplei PCR, ANA. Karius next-generation microbiology testing positive for Bartonealla quintana by PCR

Problem Representation: A 53 y/o M presents w/ a PMH of HIV, aortic valve replacement p/w 1 month of DOE/SOB found to have a para aortic valve lesion & positive B. Quintana via PCR.

Teaching Points (Rafa):
● **SHORTNESS OF BREATH**
Many etiologies - cardiopulmonary processes being the most common (HF, arrhythmia / PE, pulmonary HTN). Others: anemia, hyperthyroidism, obesity, neuromuscular weakness, acidosis, anxiety
Rule out life threatening causes first
Any other associated symptoms? - Eg, fever + cough - could localize to the lungs
● **ENDOCARDITIS**
Fever + new murmur on PE
Predisposing factors: valvular abnormalities (prosthetic valves, MVP, congenital heart disease) + conditions that promote fungemia / bacteremia (IV drug use, dental procedure)
Valvular dysfunction increases the risk, especially if patient has recently had a dental procedure
Infectious: S aureus , Streptococcus, Enterococcus
Non-infectious: nonbacterial thrombotic endocarditis - sterile vegetations - arise with hypercoagulable states (SLE aka Libman-Sacks endocarditis,, APLS) or underlying malignancy (mucinous adenocarcinoma)
● **PROSTHETIC VALVES**
Complications: valve degeneration (valvular regurgitation) obstruction (pannus formation, thrombosis), embolic event, infective endocarditis, prosthetic valve-related hemolysis)