5/8/20 Morning Report with @CPSolvers

***Case Presenter**: Anthony Pensa **Case Discussants**: Rabih Geha (@rabihmgeha) & Reza Manesh (@DxRxEdu)*

CC: 30F p/w 3 months of recurrent fevers

HPI:
3 mo ago: USOH w/ no inciting factors. Progressive mid-afternoon fevers once daily. Sweating, shaking chills.

1 month ago: more frequent, 2-3/day with soaking through clothes

2 weeks ago: OSH presented with F: 102.5. Possible hazy opacity in RLL, discharged 5d of levofloxacin

No recent travel, no new sexual partners, no new medications

PMH: none
Recurrent URI (abx, in childhood)

Meds: none

Fam Hx: none

Soc Hx:
From Chicago

Health-Related Behaviors:
2 beers/week
Smokes ½ pack per week
Vapes occasionally
Sexually active w/ 5-6 partners in last several months

Allergies: none

Vitals: **T**: 101F **HR**: 105 **BP**: 120/64 **RR**: 18 **SpO_2**: 88% RA → 95% 2L O2
Exam:
Gen: thin, no acute distress
HEENT: moist mucous membrane, no icterus, no pallor, no cervical/supraclavicular LAD
CV: tachycardic, regular rhythm, no rubs/gallops
Pulm: bilateral crackles at the bases
Neuro: normal
Extremities/Skin: normal

Notable Labs & Imaging:
Hematology:
WBC: 17.5 (74% neutrophils), Hgb: 10.5 MCV 86 Plt: 272
ESR 80 BCx: did not result

Chemistry:
Na: 136 K: 3.7 Cl: 99 CO2: 28 BUN: 9 Cr: 0.8 glucose: 101
AST/ALT/T-bili/Albumin: WNL

Negative: HIV, histo/blasto/cocci/aspergillus, ANA, RPR, UA
Sputum Cx: rare pseudomonas

Imaging:
EKG: sinus tachycardia
CXR: bilateral LL infiltrates
CT-PE: multiple peripheral wedge-shaped opacities in RML, LLL w/ broad bases c/w pulm infarction + 4x2.5 cm intracardiac mass attached to RV
TEE: mass originating in moderator band, DDx: thrombus, papillary fibroelastoma, myxoma. Mod-severe TR

Biopsy: abscess c/w Candida + rare Aggregatibacter with some areas of myxoma (necrosis complicates interpretation)

Problem Representation: Young previously healthy woman presents with chronic, progressive recurrent fevers found to have bilateral LL infiltrates and intracardiac mass dx w/ Candida & Aggregatibacter abscess i/s/o possible myxoma

Teaching Points (Jack):
Fever =/= Inflammation. Sometimes, individuals can have *sensations* that lead them to *think* they have a fever. Environmental factors (e.g., hot room, lots of blankets), autonomic activation (e.g., diaphoresis from PTSD, hypoglycemia, or OSA), endocrinopathies (e.g., hot flashes).
True Inflammation (Imad*de*): Acute onset fever (e.g., days to a week) requires us to prioritize infections. The longer the duration of the fever, the more we can expand beyond the infectious category. Think "Inflammation of Unknown Origin" not "Fever of Unknown Origin."
Localizing the Inflammation: Once you've identified true inflammation, our next step is to identify *where* the inflammation is coming from. In this case, we have signal for the lungs.
Antibiotic Failure: [1] It's not infection. [2] It is infection, but we did not treat the right *type* of infection (e.g., antibiotics for a PNA that is actually fungal. [3] Poor antibiotic penetration (e.g., Dapto for PNA). [4] Source Control issue (e.g., endocarditis, abscess, empyema) [5] It's too soon to expect a response.
What can mimic Pneumonia?: Things other than pus that can fill the lungs. [1] Water (e.g., edema) [2] Cells (e.g., irritants, drugs, autoimmune disease or cancer) [3] Blood (DAH) [4] Protein (pulmonary alveolar proteinosis) [5] Infarction
An approach to a cardiac mass: Pus (mural endocarditis), Cancer (mets, esp on R side [breast, lung, gynecologic tumors, melanoma] or primary cardiac mass [e.g., sarcoma]), or thrombus (e.g., due to APLS or ventricular akinesis). *Before pursuing the cardiac biopsy, exhaust both serologic testing and alternative sites for diagnosis.*
Wacker's Triad for PE w/ pulmonary infarction: JAMA (1961) *A Triad for the Diagnosis of Pulmonary Embolism and Infarction.*