5/1/20 Morning Report with @CPSolvers

Case Presenter: *Avital O'Glasser (@aoglasser)* ***Case Discussants***: *Jack Penner (@jackpenner) & Reza Manesh (@DxRxEdu)*

CC: 31M presenting to ED with fever & abdominal pain

HPI:
2 mo prior: diffuse constant abdominal pain, most notably **RUQ**, associated nausea/emesis, **non-bloody diarrhea**
Dental cleaning 2 months prior

ROS: fevers up to 102F over same time frame. 5 lb weight loss
No HA, sore throat, cough, dysuria, night sweats, no subjective jaundice or change in stool appearance.
CT-Abd, CBC, BMP normal and discharged

1 week later: pain R. wrist, L. knee, R. ankle. Diffuse pruritic macular rash in distal extremities. Not painful, pruritic.

PCP: new murmur → ED

PMH: None

Meds: None

Fam Hx: not-contributory

Soc Hx:
Raised in rural nebraska (not farm)
Camping 2 mo prior (without water exposures)

Health-Related Behaviors:
No smoking, EtOH or drugs
Monogamous. Store bought **rat** pet → **nibbles on fingers**

Allergies: penicillin (hives)

Vitals: **T**: 39.2 **HR**: 110 **BP**: 98/47 **RR**: nl **SpO_2**: 96% (RA)
Exam:
Gen: chronically ill
CV: 2/6 diastolic murmur RUSB, tachycardic, regular, JVP 10
Pulm: normal
Abd: normoactive, NTND
Neuro: normal
Extremities/Skin: 2+ LE edema to shins. +splinter hemorrhages + Janeway lesion. Faint maculopapular rash MSK. Joint pain (R wrist , L knee and R ankle) + no effusion

Notable Labs & Imaging:
Hematology:
WBC: 15 (neutrophil predominant) Hgb: 9 MCV 74 Plt: 405
BCx: five sets negative

Chemistry:
BMP: unremarkable
AST: 47 ALT: 42 Alk-P: normal T. Bili: normal Albumin 2.7
UA: normal

Imaging:
CXR: normal
CT-Abd: negative at first presentation
Echo: large mobile vegetation on aortic valve. Mod-severe AR → calcified vegetation resected during surgery
Serologies: negative (bartonella, brucella, coxiella)
Histopathology: coliform bacteria, silver stain pos
16S ribosomal sequencing: streptobacillus moniliformis

Problem Representation: Young man p/w subacute fever, found to have new diastolic murmur, splinter hemorrhages, and aortic vegetation dx w/ Cx-neg IE 2/2 S. moniliformis

Teaching Points (Moses):
Abdominal pain:
- remember no-miss diagnoses
- an anatomic approach: abd + extra-abdominal
- Image neg Abd pain + inflammation helps narrow

Fever: Think inflammation. <u>I MADE</u>: infection > malignancy, autoimmune, drugs, endocrinopathy
Fever + rash: RMSF, endocarditis, meningococcus, Toxic Shock Syndrome. Use the foreground to help prioritize.
Exposure pearls:
- Camping: ticks, mosquitos, giardia
- Rat: Tularemia, Hantavirus, leptospirosis, Y. pestis

Murmurs: diastolic never normal! In this case, c/f valvular vs. aortic pathology: aortitis, aortic insufficiency
Splinter hemorrhages: Represents trauma. IE > autoimmune syndrome (APLS, HES). If proximal = more likely embolic phenomenon. Also consider nail trauma.
Decompensated CHF + weight loss: IE, Hyperthyroidism
Endocarditis:
- throwback pearl: think of embolism vs. regurgitation as clue for marantic vs. IE
- Acute IE: Staph
- Subacute IE: oral flora, GI bugs (Strep bovis, enterococcus). Presents more like Rheum
- Culture negative: The Ellas (bartonella, brucella, coxiella) > HACEK. **<u>Coxiella</u>** (inhalation as possible exposure), **<u>bartonella</u>**, brucella (often pulse-temp dissociation).