1/6/22 Morning Report with @CPSolvers

***Case Presenter**: Dhruv Srinivasachar (@TheRealDSrini) **Case Discussants**: Rabih Geha (@rabihmgeha) and Sharmin Shekarchian (@Sharminzi)*

CC: Dyspnea on exertion and cough

HPI:
45 yo M w/ dyspnea on exertion and cough. SOB and cough 1 month prior that has been worsening 1 week prior. The cough has no association w/ physical activity and the patient thinks is related to air conditioner. Over the course of the disease, he has lost 10-15 lb of weight. In addition, 5 months prior the patient had an episode of contact dermatitis in lower extremities treated w/ prednisone.
No wheezings reported. No recent traveling.

PMH:
HTA. Past procedures: adenoids removed.

Meds:
Amlodipine, Atorvastatin , Labetalol

Fam Hx:
Father with HTA.
Soc Hx:
Lives at midwest US
Health-Related Behaviors:
Lives w/ parents, work requires handling of soil and fertilizers. Goes fishing. No pets.
House with molds. No smoking and occasional -OH. No recreational drugs intake.

Allergies: None.

Vitals: **T**: 98.1F **HR**: 97 **BP**: 142/91 **RR**: 40 **SpO_2**: 95% on 4-5L nasal cannula
Exam:
Gen: Requires supplemental oxygen. No acute respiratory distress.
HEENT:
CV: Tachycardic, regular rhythm, no murmurs, gallops, rubs.
Pulm: Rales in RU, RM, LU lobes. No wheezing, bronchi or stridor.
Abd: Unremarkable
Neuro: Alert and oriented and no focal neurologic deficits..
Extremities/Skin: Unremarkable. No lymphadenopathy.

Notable Labs & Imaging:
Hematology:
WBC: 13.1 (N predominance 85%) Hgb: 13.9 Plt: 360 MCV 78.1
Chemistry:
Na: 141 K: 4 Cl: 102 CO2: 27 (AG: 12) BUN: 17 Cr: .87 glucose: 132 Ca: 9
Phos: Mag:
AST: 15 ALT: 14 Alk-P: 134 T. Bili: .3 Albumin: 3.5 TP: 6.8. Lactate nl 1.7
CRP: 136, Procalcitonin: nl. pro-BMP: slightly elevated
RF negative. CK nl ANA: positive. Anti dsDNA negative. VZV negative.
Aspergillus antigen. ACE low. Vitamin D nl.
Infectious workup:
HIV, COVID,flu, Histo, blasto, cocci, TB, Q fever, bartonella, brucella negative.
Full respiratory panel negative
Blood cultures negative. negative.
EBV IgG and early antigen positive.
Imaging:
Chest CT showed diffuse bilateral miliary pattern.Lesions at spine and liver.
Lung pathology: Adenocarcinoma

Final dx: Lung adenocarcinoma

Problem Representation: 45M p/w chronic dyspnea, weight loss and miliary pattern on chest CT.

Teaching Points (Vale):

- **Dyspnea on exertion:** Benign causes are rare.
  - Time course clue: Suggests subacute to chronic.
  - Dyspnea pyramid: Lung > Heart > Other (neuromuscular, metabolic, anxiety)
  - Rash + Dyspnea: Infection, Autoimmune, Drugs, Malignancy.
- **Soil related infections:** Nocardia, Histoplasma, Crypto, Cocci, Blastomycosis, Melioidosis, Pseudomonas, Aspergillus.
  - Schema by Dr. Singh: https://twitter.com/rav7ks/status/1414404030529425408
- **Miliary pattern on chest CT:** TB, Fungi (Histo, Blasto, Crypto, Cocci), Neoplastic disease. https://twitter.com/febrilepodcast/status/1471213342446559246?s=21
- **Fluid in the lung (5 possibilities):** Pus, water, blood, cells (inflammatory rx or foreign material), fat.

💎 In an immunocompetent host w/o disseminated dz Beta-D glucan and Histoplasma antigen are less likely to be elevated.
💎 Infectious dz that can present w/ a + ANA: TB, Syphilis, HIV, Bartonella, E. coli.