02/21/24 Morning Report with @CPSolvers

"One life, so many dreams" ***Case Presenter****:Youssef(@saklawiMD)* ***Case Discussants****: Jack Penner*

CC: 30 yo M from India presented to ER for SOB

HPI: The pt presented to ER for SOB and diffuse lung nodules.
The pt moved to the US 9-10 years ago. He had SOB 2 months ago, and was treated as community acquired pneumonia with abx at the nearby hospital. He had CT done, showing diffuse nodules. Biopsy of nodules showed necrotizing granuloma; AFP neg; the TB culture result is pending.
He didn't have improvement under abx and was transferred.
ROS: Fever, night sweats, weight loss, blood tinged sputum

PMH:
None

Meds:
Vitamins

Fam Hx: none

Soc Hx: work at gas station

Health-Related Behaviors: non-smoker, non-drinker, vegetarian

Allergies: none

Vitals: T: 39.0 HR: 110 **BP:nl SaO2: 98%@RA**
Exam:
Gen: No lymphadenopathy noticed
HEENT: nl **CV:** nl
Pulm: some crackles appreciated at bl lung
Abd: nl **Neuro:** nl **Extremities/skin:** nl

Notable Labs & Imaging:
Hematology:
WBC:12.0 (75%Neutro, Absolute Eosinophil count 500) Hgb:10 (MCV 78)
Plt: 500
Chemistry:
BMP: nl.
Transferrin saturation 9%, Vit B12 180 (low), Vit D low, folate nl
HIV neg, crypto neg, urine histo neg, hepatitis panel neg, fungal markers -neg, tissue transglutaminase Ab positive
RA: positive, ANA neg, Complement: nl; P-ANCA: neg, C-ANCA: positive
UA and urine protein: nl
Repeated TB test neg
Imaging:
CT chest: Multiple bilateral hypoattenuating pulmonary nodules and masses (no cavitation noticed), of which have central ground glass. Lymph nodes: multiple prominent, rounded mediastinal and internal mammary lymph nodes
CT abdomen: nl
Multidisciplinary discussion: The nodules distribution didn't fit TB very well, more fit for autoimmune etiology, likely GPA. The pt received steroid therapy and the work-ups for lung nodules and possible bowel disease are still in progress

Dx: Granulomatosis with polyangiitis likely

Problem Representation: 30 yo M from India presented to ER for SOB, fever, night sweats, weight loss, blood tinged sputum and diffuse lung nodules.His labs showed: low B12, Vitamin D, positive C ANCA. TB negative. Dx with GPA and underlying IBD

Teaching Points (Kuchal):
1.Diffuse Lung Nodules: Consider Pattern of distribution: Infectious centrilobular(infectious) Perilymphatic(pneumoconiosis, Lymphangiectatic spread of cancer), Random(disease spread through blood stream(septic pulmonary emboli, hematological dissemination of cancer) And +/- cavitation
2..Centrilobular: secondary airway, the and main vessel feeding it are involved.
3. Necrotizing granulomas: Bartonella, pseudomallei,coccidiomycosis, blasto,histo, crypto and TB
4.GPA: random distribution and +ve cavitation, necrotizing granulomas. .rash, Renal involvement and other symptoms will be present
5..Non resolving pneumonia: **wrong bug/wrong drug/ Cross sectional imaging to r/o source control problem /No BUG /small vessel vasculitis. Important to assess what's happening in other organs. - to r/o if its primary pulmonary involvement; or if skin, lymph nodes, liver or renal involvement is present.**
6.. Multifocal nodules thoracic cavity LN -Abdominal findings. Autoimmune, or cancer. And few disseminated infections. Further testing with ANCA, Serology, histoplasma Urine Antigens, complement testing for blasto to be done. Bronchoscopy to be considered.
7..disseminated TB/ Fungi: spread through Reticulonodular system. Which means Spleen and liver would also be involved.
8. Base rate of EGPA is low, compared to other Differentials.
9. RA: autoimmune, or non connective tissue condition like endocarditis could be the DD
10. C ANCA positive: GPA > EGPA ; Eosinophils are high EGPA> GPA
11. Tissue Transglutaminase is +ve : is it from underlying IBD.