

"One life, so many dreams" Case Presenter: Alex (@AlexTSmithNY) Case Discussants: Andrew (@ASanchez\_PS) and Kirtan (@KirtanPatolia)

CC: 81 F w/ one week SOB

HPI: One week prior to hospitalization she experienced subjective fever, chills and night sweat, over past 6 months to 1 year experienced weight loss 30 lb (120lb → 90lb)

She lives in PR, she in NY visiting family past month, uptodate for cancer screening, we do not have records.

ROS: Decreased appetite, no vomiting, no diarrhea.

Admitted(CAP treatment) → ceftriaxone + azithromycin → symptoms improved.

PMH: Asthma well controlled, No surgical, No seasonal allergy.

Meds: none. No inhaled bronchodilator.

Fam Hx: no cardiopulmonary pathology, no malignancy in her family.

Soc Hx: She lives in PR. She does not work, has been a homemaker.

Health-Related Behaviors: No history of smoking or alcohol usage.

Allergies: None.

Vitals: T: 100 F HR: 95 BP: 110/70 RR: 22 Spo2: 90% RA → 96% 2 L nasal cannula.

Exam: Gen: tachypnic, use accessory muscles, she was able to complete sentence, cachectic, mild temporal wasting observed.

HEENT: no rhinorrhea; no coryza.

CV: no murmur

Pulm: expiratory wheezing at lung base, otherwise clear to auscultation, no percussion

Abd: non tenderness. Neuro: intact.

Extremities/skin: skin warm.

### Notable Labs & Imaging:

#### Hematology:

WBC: 21.5k (Diff: 93% neutrophil dominant), Hgb:9.4 MCV: 85, Plt: 456.

#### Chemistry:

Na:137; K: 4.8; Cl:103; HCO3: 23; BUN: 20; Cr:0.5; glucose: 105; Ca:10.

#### Imaging:

CXR: clear

Chest CT w/ contrast: No PE; no plural disease; multifocal consolidation bl at lung base mostly left, cavitation at left lower lobe. Hiatal hernia.

Respiratory viral panel negative, mycoplasma negative, fungitell neg, HIV neg, ANCA neg, galactomannan neg, Acid fast neg, sputum culture (positive for mycobacteria, NTB), Aspergillus Ab neg.

Dx: **Pneumonia (Non TB mycobacteria)**

Problem Representation: 81 female presented with SOB, fever, chills, night sweats and weight loss, hypoxemia on exam, leukocytosis, consolidation bilaterally on imaging and hiatal hernia.

### Teaching Points (Maryana):

Important to understand the **host**, background, context - relevant or non relevant? Elderly woman, PMH of asthma. SOB has a broad ddx  
Weight loss & fevers: help to narrow down the ddx - complications, medications or something else? **Acute inflammatory symptoms.**

- Efficient & safe practice: acute inflammatory syndrome → infections first, chest CT, atb therapy
- Think about differentials: granulomatous infections, malignancies.

Malignancies: solid tumors, hematologic tumors

Lung cancers: parenchyma, mediastinal or vessels impairment

Weight loss: chronic infection, cancer, hypothyroidism,

SOB: organs & mechanism - which of them will cause hypoxia? Does it respond to increased oxygen supplementation?

Chest CT:

- **Consolidations:** complete alveolar filling -

**Fluids:** ARDS, edema

**Blood:** pulmonary hemorrhage

**Pus:** traditional bacterial infection - Strep pneumo, H flu, moraxella

**Parenchyma:** organizing pneumonia,

Eosinophilic pneumonia

- **Cavitations:**

- **Lung abscess** (dysphagia & chronic wt loss

- **Scattered and multiple:**

strep anginosus, autoimmune causes (GPA)

squamous cell carcinoma, Infective endocarditis (homogeneous distribution tough).

- Tb usually causes apex lung cavitations

- **Hiatal hernia** → accumulation of non TB mycobacteria in the esophagus → aspiration causing non TB mycobacterial pneumonia.

**Ddx:** Endemic mycoses, non TB mycobacteria, tuberculosis would appear w/ lymphocytic leukocytosis.

Histoplasmosis usually appear with LAD, blastomycosis can appear without LAD

**If patient is not improving with atb, if infection work up is all negative → investigate for malignancies!**

Infection work up negative: wait for blood cultures and TB work up, go for bronchoscopy.

