

**CC:** 54 F p/w 2wk L chest pain  
**HPI:**  
Mild in intensity  
Unchanged with exertion or position, nonradiating  
Sharp and stabbing in quality  
Never occurred before  
Productive cough with brownish sputum for 1mo, with worsening dyspnea around this time period  
Diffuse pain around her body, at baseline  
2/2 fibromyalgia  
No fevers chills, orthopnea, PND, LE edema, n/v/abd pain, night sweats, weight loss, or confusion

**PMH:**  
COPD/Asthma x15yr (fluticasone salmeterol)  
Last exacerbation x2mo  
Fibromyalgia (duloxetine)  
Ankylosing spondylitis (adalimumab last dose 2mo ago)  
TB sacroiliitis s/p 9mo  
RIPE in 2011  
IBS x5yr tx conservatively

**Soc Hx:**  
From El Salvador, arrived in Chicago 1998  
No subsequent travel  
No pets or sick contacts  
**Health-Related Behaviors:**  
1 ppd smoking x30yr, quit 2yr ago  
No other substances

**Vitals:** T: HR: BP: RR: all normal  
**Exam:** Gen: looking comfortable  
**Pulm:** reduced breath sounds over Left lung base; diffuse wheezing  
**Abd:** wnl **Neuro:** wnl, normal mentation **Extremities/skin:** wnl

**Notable Labs & Imaging:**  
**Hematology:**  
WBC: 11k, neut predominant without eos Hgb: 13.3, MCV 90 Plt: 353  
**Chemistry:**  
Trop wnl; LFT wnl; BMP wnl; UA wnl without protein or cells; Coags wnl  
**Imaging:**  
CXR: small effusion in L basal aspect of lung, hazy opacities  
CT: small LLL subsegmental PE w/o R heart strain. LLL consolidation w/air bronchograms & small effusion. Could not tap.  
**HD2:** becomes progressively hypoxemic to 92% O2 at 60L HFNC, 90% FiO2. POCUS w/unchanged effusion size.  
Receiving CTX and azithro; when transferred to ICU on HD3, gets hydrocortisone 50 mg q6 + hydromorphone, ketorolac & morphine for pain mgmt. Continues to worsen.  
**HD5:** repeat CT: R> L pleural effusion, interlobular septal thickening & diffuse GGOs. Tap: WBC 2700, neut 75%, lymph 10%, mono 10%, exudative  
pH wnl, glucose wnl, ADA 41 (10)  
HIV, hep B, hep C, RPR negative  
Sputum cx, gram stain, bacterial & fungal cx, AFB x3 all negative  
Urine legionella, strep negative. Ucx negative. Bcx x3 no growth.  
ANA wnl dsDNA wnl ANCA, RF, CCP wnl; myositis panel WNL; anti GBM wnl  
Serial UAs wnl x3-4.  
Switched empirically to vanc/zosyn. Steroids stopped.  
TTE wnl 60%, no diastolic dysfunction, no valvular dysfunction or vegs.  
**HD8:** diffuse abdominal pain 10/10, n/v.  
CT AP: recurrent pleural effusions & diffuse GGO. Dilatation of cecum, ascending and transverse colon, cecum 9.6 cm in caliber. Mesenteric fat stranding & peritoneal thickening & nodularity in the ascending colon.  
**HD8:** CBC: WBC 15k, neut predominant, Hb & Plt stable  
ESR, CRP stable; 1,3 b D glucan & galactomannan negative  
**HD13:** serum CrAg, blasto wnl. Aspergillus IgE, IgG, IgA wnl. Total IgE wnl. LFT stable.  
Strongly positive Strongyloides ELISA  
Clinical improvement with ivermectin  
**Dx: strongyloides hyperinfection**

**Problem Representation:**  
54f hx fibromyalgia, AS on humira, TB sacroiliitis s/p RIPE in 2011, IBS, p/w subacute progressive dyspnea & chest pain tx as severe pneumonia w/CTX, azithro, hydrocortisone. Progressively hypoxemic while hospitalized w/R>L effusions & diffuse GGOs on CT chest, & later develops massive colonic dilatation w/peritoneal nodularity on CTAP. Ultimately fth strongyloides hyperinfx.

**Teaching Points (Parisa):**  
Chest pain + cough → pneumatic nature + brownish/rust-colored sputum → pneumonia (pneumococcal; aspergillus); alveolar hemorrhage; pulmonary embolism plus infarction → importance of host; detailed history  
Structural lung abnormality → Heavy smoking history shows obstructive lung dx (COPD; required confirmatory PFT; evidence emphysema)  
**Prior history of TB plus immunosuppression** → CT scan more reliable; infectious causes on top → TB could be mimicker of histoplasma and geographic mycoses → Non infections PE; structural lung dx  
**Eosinophilia** → could be powerful pivot point as it has limited ddx → parasitic; ABPA; fungi; EGPA (asthma mimicker unless on prednisone)  
**ABPA** → atopic predisposition; long-standing asthma; allergic reaction to aspergillus colonization; wheezing; dyspnea; productive cough; rusty colored sputum; bronchiectasis picture; diffuse tree bud nodules + bronchiectasis; elevated total IgE and aspergillus specific.  
**Rapidly progressive hypoxemia** → progressive parenchyma process; subsegmental PE; Shunt → Hypoxemia → presence vs absence of parenchyma dx → clear chest (hypoventilation; embolism, shunt, anemia) abnormal chest (hemorrhage; infection; scarring)  
Conducting CT angiogram make sure patient is in the inspiratory phase avoiding lung compression.  
**Elevated ADA** → pleural TB; pulmonary lymphoma; lymphocytic effusion  
**Multifocal GGO** → alveolar hemorrhage (capillaritis; vasculitis; renal pulmonary sx; bland hemorrhage; elevated wedge pressure); drug-induced pneumonitis; acute interstitial pneumonia; organizing pneumonia  
**High level of Beta-D glucan** → cryptococcus; histoplasma; other mycoses  
**Colon involvement:** serosal TB; met fungal (Immunocompromised host) + lymphoproliferative dx; gastrointestinal/ genitourinary malignancies + disseminated infection → tissue would be diagnostic (AFB; culture)  
Eosinophilia in Immunocompromised host → Strongyloidiasis → respiratory failure; getting worsened w/ steroids (others TB; fungi) → Loffler syndrome