06/10/24 Rafael Medina Subspecialty VMR with @CPSolvers

"One life, so many dreams" **Case Presenter**: Ravneet Waraich (@) **Case Discussants**: Dr. Robin Stiller (@) and Dr. Tameka Smith (@)

CC: Dry cough and difficulty breathing

HPI: 73 F, 2.5 month history of cough; was diagnosed with bronchitis and viral respiratory illness; presents with SOB with exertion again now which has been progressive. Cough is impacting her during the day and waking her up at night. No orthopnea or PND.

PMH:
- Seasonal allergy
- Type 2 DM (new Dx)
- Invasive ductal CA (Chemo in 2014 and double mastectomy, **no** radiation)
- BRCA2 mutation
- Fibromyalgia
- Anemia
- Chronic pain
- COVID 19

Meds:
- Fluticasone nasal spray and inhaler
- Metformin
- Glimepiride
- Atorvastatin
- Duloxetine
- Fexofenadine
- Gabapentin
- Hydroxyzine
- Taxanes (4 years prior)

Fam Hx:
- Heart disease in family (doesn't remember what)
- BRCA2 +ve breast cancer in mom, aunt and sister

Soc Hx:
Retired Homemaker Biracial Never smoked Went to China in her teens and South America. Raised in Pacific Northwest.

Health-Related Behaviors: -

Allergies:
No known allergies

Vitals: **T**: Afebrile **HR**: 92/min **BP**: 116/58 mm Hg **RR**: 14 /min **spO2**: 95% on RA and 92% on ambulation

Exam:
Gen: Unremarkable
HEENT: Normal
CV: Normal
Pulm: Diffuse expiratory wheezing
Abd: Normal
Neuro: Normal
Extremities/skin: Normal

Notable Labs & Imaging:
Hematology:
WBC: 19,000 Hgb: Normal Plt: Normal
Differential: Eos: 2740, ANC: 12,630 (Trend: WBC had been slowly trending up; 3 months prior - Absolute eos: 1100)
Presents with hypoxemia in the current visit - 88% on 5L of nasal cannula

Chemistry: Na,K,Cl,HCO3: Wnl; Cr: 1.9 (Baseline - 1.0) glucose: Ca: Mag:
AST: Wnl ALT: Wnl Alk-P: Albumin: BNP: Wnl
ANCA, ANA, Anti CCP, Aldolase - Wnl
HIV, Hepatitis B - negative
Strongyloides- Negative; Coccidioides: Negative; IgE- 2500
PFT: FEV1/FVC - 88% of predicted; FEV1- 54%, FVC-46%; no bronchodilator response.
Imaging:
CXR: Coarse reticular opacities
Echocardiogram:
CT chest: Diffuse GGO, with areas of consolidation - interlobular septal thickening with crazy paving pattern.
Bronchoscopy & BAL: 37% eosinophils, 50% neutrophils, 2% basophils, 7% monocytes (improved on IV steroids)

Dx: Chronic eosinophilic pneumonia (Dx'ed on autopsy)

Problem Representation: 73y/o F, 2.5 month history of cough and SOB w/exertion. PMH of seasonal allergy. Diffuse expiratory wheezing. Coarse reticular opacities on CXR. Eosinophilia, obstructive pattern on spirometry w/out response to bronchodilator.

Teaching Points (Parisa):
Common causes of cough → asthma, GERD, Post nasal drip
Alarm sign in chronic cough → ACEi, smoking, GERD, asthma, upper airway cough syndrome
Malignancy + hx chemo → infiltrative dx (ILDs, immunotherapy, taxans, bleomycin, MTX); HF
CXR → focal vs bilateral lesion/ distribution and pattern; peripheral sparing; variation on densities
Next tests → peak flow meter; basic spirometry; CBC (r/o eosinophilia); CT chest; BAL(based on CT findings location)
PFT (Z Score) → mild; moderate; severe→ Restriction on PFTs → check lung volume → obstruction and air trapping
Eosinophilia + lung dx → asthma; (obstructive process with bronchodilator response, wheezing); chronic eosinophilic PNA; drug exposure; infections (travel hx); vasculitis (less likely in elderly; UA might be helpful)
Eosinophil count in uncontrolled asthma could be elevated.
Hypersensitivity pneumonitis → gardeners; soil exposure
Crazy paving on CT → GGOs with superimposed interlobular septal thickening and interlobular lines → PAP; AIP; PCP; ILDs; viral pneumonia; alveolar hemorrhage syndrome; COP
Chronic eosinophilic pneumonia (CEP) → eosinophils in lung tissue and air space/over weeks to months/ medication
Acute eosinophilic pneumonia (AEP) / over days; more severe
Treatment → corticosteroids; supportive care.
It's really important to respect patient wishes and provide them with a peaceful death if that is what they want.