1/3/22 Morning Report with @CPSolvers

Case Presenter: Kathryn del Valle (@kdelvalleMD) **Case Discussants**: Kelly Pennington (@DrKPennington) and Jenn Duke (JennDukeMD)

CC: Shortness of breath

HPI:
72 year old pt, never smoker w/ hemolytic anemia on Rituximab.
Dx Coombs -ve hemolytic anemia & p/w Afib & fecal occult blood +. CT and endoscopy unrevealing.
CT chest 2 months ago which showed fibrotic changes R pleural effusion cavitary lung mass.
Presents to ED w/ acute shortness of breath, accompanied w/ non productive cough breathless for several months, came in b/c of worsening. No fevers, chills, NS.

PMH:
Afib on Warfarin
HTN
T2DM
CKD 3
AIHA
No prior lung dz
SHx:
Appendectomy, tonsillectomy

Meds:
Glimepiride, metoprolol, prednisone 15mg, atorvastatin, warfarin

Fam Hx:
No family h/o lung dz

Soc Hx:
Never smoker, no alcohol or drug use. Retired prof, primary caregiver to spouse.
No travel, occupational exposure. Lives upper midwest

Vitals: **T**: 36.5 **HR**: 123 **BP**: **132/75 RR**: 32 **SpO_2**: 96% 2L NC

Exam:
Gen: Ill appearing, conversational dyspnea
HEENT:
CV: irregularly irregular heart sounds, JVD
Pulm: Absent breath sounds on Right, crackles Left lung base
Abd: Soft, non tender, no palpable organomegaly
Neuro: No focal neuro deficits, CN II-XII intact
Extremities/Skin: 2+ edema

Notable Labs & Imaging:
Hematology:
WBC: 13.6 (Neutrophil pred) Hgb: 9.5 (baseline) Plt: 280
Chemistry:
Na: 131 K: 5.4 Cl: 95 CO2: 20 BUN: 43 Cr: 1.85 glucose: 105
Imaging:
CT chest shows R hydropneumothorax w/ cavitary mass, Left anterior GGO & reticulation in the periphery w/ subcutaneous emphysema
Pleural fluid analysis: 1026 nucleated cells 78% PMNs, LDH 321 S. LDH 437 Pr 3.2 S. Pr 5.6 pH 7.35 cytology & Cx negative
Fungal and bacterial studies unrevealing
ESR 71
FNAC acute inflammation and pauci-septate mycelium suggestive of mucormycosis
Patient decompensated despite treatment and was transitioned to hospice
Dx: Mucormycosis

Problem Representation: Elderly pt. living in upper midwest w/ Afib, hemolytic anemia Tx immunosuppressants p/w acute on chronic dyspnea, hydropneumothorax, cavitary lung lesion & GGO

Teaching Points (Andrea):
- SOB: Cardiac, pulmonary, hematology
- Patients immunosuppressed wont present with common signs of pneumonia. No chill, no fever
- Cavitary lung lesion: Infection (fungi, polymicrobial abscess, mycobacterial), malignancy (squamous cell carcinoma), sarcoidosis, RA, Granulomatosis with polyangiitis
- Multibacterial Abscess: Patient with aspiration
- Absent breath sounds: Collapsed lung or airway obstruction
- ABCDE To read x ray: Airway, Bones, Cardiac silhouette, Diaphragm, Everything else
- Hemoptisis: Productive cough and anemia
- CHEST definition of stable: respiratory rate lower than 24 bpm, HR 60-120, O2 saturation greater than 90, BP greater than 90/60, able to complete full sentence
- Presentation: FIbrotic lung tissue vs chronic process
- Silicosis has differential dx sarcoidosis
- Light's Criteria are used to determine whether a pleural effusion is exudative or transudative. Sensitivity 98% specificity 80%
- Exudative: more systemic process}
- Hydropneumothorax: Bronchopleural fistula, Iatrogenic, rupture of alveolar sac, empiema, malignancy (mesotelioma)
- Mucormicosis: Sinonasal orbital dz in pts with DM, Pts with immunosuppression gel pulmonary mucor. Dx only with biopsy TT: surgical debridement, liposomal amphotericin.
- Reversed halo sign: central ground-glass opacity surrounded by denser air mucormicosis