05/08/24 Morning Report with @CPSolvers

"One life, so many dreams" Case Presenter: Lizzie Chang (@) Case Discussants: Sharmin (@Sharminzi) and Jack

CC: 58 y/o female progressive upper back pain

HPI: 9 months ago she had back pain.
4 months new non productive cough, dyspnea on exertion and the back pain progressive.
2 weeks decrease appetite, weight loss, back pain, non productive cough, and nausea.
Denied fever, chills, diarrhea, new rash, night sweats.

PMH: Diabetes

Meds: Glyburide
Tylenol for pain

Fam Hx: Unclear → unknown lung cancer
Soc Hx: From Panama lives in Texas

Health-Related Behaviors: Non alcohol, tobacco and drugs

Allergies: Denied

Vitals: T:99 **HR:**113 **BP:**132/90 **RR:**20 **Sat:** 96% RA
Exam:
Gen: Non acute distress
CV: Tachycardic, normal rhythm no gallops, murmurs
Pulm: Decreased breath sound in the middle and lower on the right side
Abd: Soft non tender
Neuro: Normal
Extremities/skin: No rashes

Notable Labs & Imaging:
Hematology: WBC: 13.2 (75% Neu) Hgb:12 Plt: 574

Chemistry: Na, K, Cl, HCO3, BUN, Cr, glucose: wnl; Ca: 9.6 Mag: wnl
Albumin: 4 protein 7.8 LDH 243 Troponin? Lipase: 13
HIV, COVID, Respiratory viral panel, Histo and Cocci: negative

Imaging:
EKG: Sinus tachycardia, short PR interval
CXR: Large right pleural effusion with marked compressive atelectasis
Chest CT: Large centrally necrotic R hemithorax mass arising from mediastinum that invades adjacent anterior chest wall manubrium and sternum, and results in significant SVC stenosis and R interlobar and interlobar and upper lobe bronchi narrowing. Largen R pleural effusion suspected to be malignant. No evidence of metastatic disease to abd or pelvis. No pleural peritoneal nodules.
Thoracocentesis: 1450 WBC Lymphs: 63% cytology with reactive mesothelial cells, pleural protein 5.1 LDH 263, Glucose 107
Biopsy: Sarcomatoid mesothelioma (Family association)

Dx: Sarcomatoid mesothelioma

Problem Representation: 58 y/o female with chronic back pain and unknown family history of lung cancer. Presented tachycardic and with decreased breath sound in the middle and lower R side. Chest CT showed a large mass arising from the mediastinum. Lung biopsy revealed sarcomatoid mesothelioma.

Teaching Points (Elena):
1. **Low back pain**: Esp. if chronic - Base rate MSK; other const. symptoms!
2. **Back pain** (structural approach): vertebral (bones, cartilage, disk, muscles) vs. organ-based problem (depend. on the location retroperitoneal organs or intrathoracic organs)
3. **Const. Symptoms + back pain**: Infection, malignancy
4. **Diabetes**: think about complications and glycemic control (impair immune competence)
5. **Decreased breath sounds w/ normal oxygenation** →Pleural space (effusion i.e. due to malignancy - don't cause hypoxemia until they cause atelectasis) - in case of malignant effusion (always think of PE - 4th most common cause of pleural effusion)
→the effusion sometimes causes us to not see a malignancy (it may be helpful to do a post-thoracentesis CT)
6. **Accelerating course**: Infections (like TB, Blasto, Cocci, Histo - affecting both bone and lung), Vasculitides, Malignancies
7. **Thrombocytosis**: Reactive (infections, cancers esp. solid), can also be sign of empyema or abscess vs. primary thrombocytosis
8. **Mediastinal mass**: (benign), malignant, infectious, autoimmune
   - Anterior Mediastinum - Terrible Ts: Thymoma, terrible lymphoma (LDH), thyroid, teratoma (serum AFP, bHCG)
   - Infections: Histoplasmosis, TB, Cocci, Paracocci
   - Autoimmune: Sarcoid