02/04/21 Morning Report with @CPSolvers

***Case Presenter**: Marcela Araujo (@Marcelaaos) **Case Discussants**: Juan Mejia and Fernanda Teixeira (@FTeixeiraMD)*

CC: Shortness of breath (SOB)

HPI: 46yM. 4 months ago patient initiated w SOB w minimal activity, after some weeks started having SOB at rest. Was dx with pneumonia and was treated w/no improvement.

1 month ago initiated w/cough + hemoptysis.

Presented to ED after 2 episodes tonic-clonic seizures.

ROS: watery stools w/blood 2x/day past 2 weeks and leg edema.

PMH: None

Meds: None.

Fam Hx:

Soc Hx: Lives in Minas Gerais, Brazil. Not currently working - worked as salesman.

Health-Related Behaviors: Consumes a lot of alcohol during the weekends. Has smoked 2-3 cigarettes every day last 7 years. Sporadic unprotected sexual intercourse.

Allergies: None.

Vitals: **T**: afebrile **HR**:110 **BP**:150/90 **RR**:36 **SpO_2**: 86% 2L Nasal cannula.
Exam:
Gen:Ill appearing. Anicteric. Cyanotic.
HEENT: normal **CV**: tachycardic.
Pulm: Signs of respiratory distress. Reduced breath sounds in R hemithorax. Rest was normal.
Abd: Non tender to palpation. Palpable mass in umbilical region, hepatomegaly palpable 4 cm under R costal margin. No splenomegaly.
Neuro: Normal.
Extremities/Skin: Mild b/l leg edema.

Notable Labs & Imaging:
Hematology: WBC:18,000 (N 87% L 7% E 1%) Hgb:12 Plt:267

Chemistry:Na: 138 K:3.2 Cl:102 BUN:nl Cr:nl AST:45 ALT:28 Alk-P:172 GGT 125 T. Bili:nl CRP: 10

HIV neg. HBV not immune. HCV neg. VDRL neg.

Imaging:Head CT: Nl.
Chest Ct: symmetric interstitial lung changes predominantly R side. Small pleural effusion on R side. Pericardial effusion. Multiple mediastinal lymph node enlargement. Hepatic focal lesions, mesenteric lymph node enlargement. Mass in 1 adrenal gland. Hepatic steatosis.
Cervical Lymph node biopsy: metastatic carcinoma.
Immunohistochemistry: lung primary site.
Cultures of pleural effusion: neg for TB, fungi.

Pt evolved to respiratory distress had to be intubated. EKG showed electrical alterations. Echo had pericardial effusion w/restriction of diastolic filling. A pericardiocentesis was performed. Evolved to cardiac arrest, CPR unsuccessful.
Final DX: Metastatic lung carcinoma

Problem Representation: A 46yM w/PMHx of smoking p/w a 4m history of SOB, hemoptysis and tonic clonic seizures. PE notable for respiratory distress and periumbilical mass. Further examination revealed b/l interstitial lung changes, multiple lymph node enlargement, pleural and pericardial effusion and an adrenal gland mass. Pt. died after a respiratory distress and obstructive shock.

Teaching Points (Rafa):

- **APPROACHING MIDDLE-AGED PATIENT W/ SOB + HEMOPTYSIS + SEIZURE + DIARRHEA + EDEMA**
  Many systems involved - look for a common denominator (edema + cough ->lungs) or pathology affecting multiple places like vasculitis, metastasis
  - Hemoptysis - narrow Ddx - could be a good place to start with - infection (TB), tumor, vasculitis, coagulation disorders
  Lung parenchyma abnormalities is the main cause
  Outside the lungs: GI bleeding
- **SIGNIFICANT SEXUAL HISTORY**
  Always check HIV status + CD4 count! It can broad your Ddx.
- **EDEMA :** extravasation of fluid into interstitial space
  Liver (hypoalbuminemia - loss of oncotic pressure) / heart (increased hydrostatic pressure) / kidney disorders (nephrotic syndrome leading to proteinuria - loss of oncotic pressure)
  Cirrhosis could be a possibility d/t to the health-related behaviors
  Look up - jaundice? Volume overload?
- **HEPATOMEGALY**
  Alcoholic hepatitis, congestion (portal HTN), infections (schistosomiasis) , liver cancer / metastasis, autoimmune diseases (primary biliary cholangitis)
- **LYMPHADENOPATHY** - localized / diffuse
  Diffuse: infection (mononucleosis like syndrome, syphilis TB / endemic mycoses) + malignancy. Less likely, autoimmune like sarcoidosis
- **UNILATERAL ADRENAL GLAND MASS**- adrenal carcinoma - could explain the leukocytosis (cortisol inhibits neutrophils migration)
- **UNFORTUNATELY THE PATIENT DID NOT RECOVE**R - always try to learn from it so we can give a better treatment/ care for the next patient