



11/12/20 Morning Report with @CPSolvers



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CC: SOB.

HPI: 45yF w/SOB. 1 month new cough dry → yellow sputum w/out blood. 1 month ago starts w/decreased exercise tolerance → SOB after walking for 2 NYC blocks. She got COVID test; found out in outpatient clinic to have respiratory distress, SpO2 89% RA → ED: R lower lobe consolidation. SOB improves by lying on R side.

ROS: No lower extremity edema, chest pain, N/V, fever, sick contacts.

PMH: obesity (BMI 47)

No health insurance for last 15y - no hospitalizations

Meds: None

Fam Hx: Dad: flebitis, MI (death). Mom: epilepsy.

Soc Hx: Writer. Drives longer periods of times.

Health Related Behaviors: No tobacco, drugs, alcohol use.

Allergies: None

Vitals: T: afebrile HR: 138 BP:170/102 RR: SpO₂: 99% 4L Nasal cannula

Exam:

Gen: normal **HEENT:** normal.

CV: regular tachycardia, no murmurs or gallops. No JVD.

Pulm: normal work of breathing. Breath sounds mildly reduced over R lower lobes compared w/L.

Abd: normal **Neuro:** normal

Extremities/Skin: Warm, well perfused, adequate pulses. No lower extremity edema. No tenderness on extremities.

Notable Labs & Imaging:

Hematology: WBC: 15 (N predominance) Hgb:12.7 Plt:415

Procalcitonin: 0.11 (low)

Chemistry: Na:136 K:4.4 Cl:97 CO₂:19 BUN: 12 Cr:0.7 glucose:291 AST:15 ALT:11 Alk-P:59 T. Bili: 0.3 Albumin: 3.7 TP:7.7 Prot Gap: 4

Anion gap: 20 Delta gap: 8 Venous lactic acid: 2.3 (nl: 0.5-2.2)

BNP: 15.2 (normal limits), troponins neg.

Imaging: **EKG:** sinus tachycardia.

CTA: L lower lobar segmental and subsegmental PE. R upper lobar and segmental PE, Mod-large R pleural effusion w/adjacent atelectasis, 1.1cm hyper dense thyroid nodule. Accidental ascites.

Echo: unremarkable. **Lower extremities:** neg DVT.

Thoracentesis: 60% lymph, 7% neutrophils, 3% monocytes macrophages.

Light's criteria: fluid protein 4.9 serum 6.2, fluid LDH 6.10, serum LDH 4.10, fluid amylase normal limits. Fluid hematocrit 0% → **Exudative effusion.**

Cytology: negative for malignant cells. **Pigline:** drained 3L of fluids.

Abdominal USG: Hepatic steatosis.

Empiric CAP treatment (ceftriaxone + azitro), anticoag → DOACs. Discharged and then returned 1w later to ER w/ increase dyspnea on exertion → at rest.

CXR: moderate R sided pleural effusion.

CA 19-9, CEA: positive +++. CTA Abd and Pelvis: cystic mass 1.9-12.2 in L adnexa: **cystic ovarian neoplasia.**

Problem Representation: 45yF w/ no access to care and morbidly obesity presents w/ SOB, hypoxemia. Workup for exudative R sided pleural effusion and multiple PEs. Presents 1w later w/worsening dyspnea and pleural effusion.

- Teaching Points (Elena):**
- **Clinical Reasoning tool:** consider alternate hypotheses that are less probable, being open to moving your anchor. Pause to think does this make sense and question the diagnosis/response to treatment (ie, bacterial infection would not brew for weeks)
 - **Consider social determinants of health:** access to care, always consider, “could this patient be immunocompromised?” acknowledging limitations in knowledge of timelines - increases likelihood that we will do a broader work up.
 - **Using the PMH to inform the “foreground:”** Obesity linked to SOB via thromboembolic disease risk or asthma (reactive airway disease) vs pulmonary hypertension
 - **“Dyspnea Pyramid” (from bottom to top):** cardiovascular causes, pulmonary causes and metabolic acidosis or anemia
 - It is important to correlate the clinical findings with the previous knowledge about the radiographic findings (RLL infiltrate) and finding pertinent negatives such as no evidence of heart failure
 - **Anion Gap Metabolic acidosis ddx:** lactic acidosis very common, but always considering other differential diagnoses such as DKA
 - **Pulmonary Embolism:** location (segmental vs subsegmental) and clinical picture (massive, submassive and low risk). Can cause transudative or exudative effusions - exudative cause by ischemia
 - **Overlap between PE and Exudative Effusions:** prothrombotic states in autoimmune disease such as lupus, infection (ex: Dengue) or malignancy
 - **Cancers in young people:** cervical cancer, ovarian cancer, testicular cancer. Mapping on obesity → hyperestrogenism can increase risk for reproductive cancers or in Meig’s syndrome in benign tumors + ascites + pleural effusion