10/25/21 Morning Report with @CPSolvers

***Case Presenter**: Dhruv Srinivasachar (@TheRealDSrini) **Case Discussants**: CPSolvers Family*

CC: Dyspnea and chest pain

HPI: 18 M with asthma poorly controlled with previous hospitalizations. 2 days before admission, he had SOB and mild chest pain. The day of admission he had sob worsened, his fingers were cyanotic, and his oximetry 94% (Basal: upper 90). He tried albuterol and nebulizer q 2 h with little improvement. In the way to ER, the patient coughed with sharp midsternal pain radiating to Right side, No known triggers, trauma, nausea, vomit, decrease in appetite.
At the ED: He received Albuterol, ipratropium, oral prednisona, IV quoteral for discomfort. Referred to hospital.

PMH:
Asthma, Hospitalized 3 times in the last several years. Immunizations up to date. No COVID or flu
Meds:
Sinvacor, montelukast, clonezen, Albuterol nebulizations and inhaler Used every other day twice and Albuterol treatments daily

Fam Hx:-

Soc Hx: Student. No pets, no respiratory exposure at home

Health-Related Behaviors: No smoke, drink, drug

Allergies: Seasonal allergies

Vitals: **T**: 37 **HR**: **120** tachycardia **BP**: 107/68 **RR**: 20 **SpO_2**: 93% on 3L of nasal cannula

Exam:
Gen: Acute respiratory distress, tachypneic with accessory muscle use. Breathless through speaking
HEENT: Normal, moist. R crepitus underneath neck skin
CV: Tachycardic RR. No murmurs Tenderness with palpation in mid sternum
Pulm: Expiratory wheezes, no focal findings
Abd: Flat, soft non tenderness, no hepatosplenomegaly
Neuro: Normal
Extremities/Skin: Normal, no cyanosis.

Patient given morphine for pain.

Notable Labs & Imaging:
Imaging:
CXR: Pneumomediastinum

Asthma exacerbation complicated by pneumomediastinum possible caused by severe coughing prior to arriving to ER. Patient continued on oral steroids, albute, ipa, sinvacor, Rstatus improved and stable in room air. Followed with allergist.

Problem Representation: 18 M with asthma poorly controlled p/w dyspnea and chest pain. Patient has R crepitus underneath neck skin and tenderness with palpation in mid sternum

Teaching Points (Gabriel):

- **Approaching chest pain**
  - 4+2+2: ACS, aortic dissection, tamponade, takotsubo, PE, pneumothorax, rupture, impaction
  - Dyspnea + chest pain prioritize cardiac and pulmonary system.
    - How to narrow our differential? Look for associated symptoms → volume overload should prioritize cardiac.
    - Male young adult: ACS and takotsubo lees likely.
- **Solving the puzzle:**
  - Poor controlled asthma: think of asthma + syndrome. Look for risk factors for hospitalization, triggers (respiratory infections, meds), complications (pneumomediastinitis, pneumothorax) and inquiry access to meds.
  - Ddx of asthma: allergic rhinitis, GERD, bronchiolitis, primary ciliary dyskinesia, cystic fibrosis, tracheo/bronchomalacia.
  - Young adults can easily compensate hemodynamically
  - 🚩🚩 Red flags of severe asthma crisis: Silent chest, cyanosis, AMS, paradoxical pulse, hypercapnia, acidosis
  - Workup: vitals follow-ups, CXR
- **Finishing the puzzle:**
  - 💎Crepitus + expiratory wheezes in a patient w/ PMHx of poor controlled asthma: Spontaneous pneumomediastinum + asthma exacerbation