07/15/21 Morning Report with @CPSolvers

***Case Presenter**: Rafael Alvim (@)* ***Case Discussants**: Promise lee (@promiseflee) and Nilayan sarkar (@nilayansarkar)*

CC: Chest pain

HPI: 57 year-old male with chest pain. Dyspnea, palpitations for 2 weeks. Pain worsens on exertion and subsides with rest.

ROS- Denies PND, orthopnea, weight loss, fevers, chills, or leg swelling.

PMH:

Meds:

Fam Hx:

Soc Hx: 40 pack year smoking history. Quit few years ago. Now on e-cigarettes

Health-Related Behaviors:

Allergies:

Vitals: **T**: 36.4 **HR**:74 **BP**: 131/71 **RR**:18 **SpO_2**: 99% on RA

Exam:

Gen: No acute distress

HEENT: Pale conjunctiva

CV: Regular rate and rhythm

Pulm: Clear to auscultation

Abd:

Neuro: A/O x 4

Extremities/Skin: No peripheral edema

Notable Labs & Imaging:

Hematology:

WBC: 74,000/mm3 (40% blasts, 21% segmented neutrophils, 2% monocytes, 2% eosinophils, 6% metamyelocytes, 8% myelocytes, 4% promyelocytes, 11% lymphocytes) Hgb: 5g/dl, MCV-109, MCH-35, Hct-16 Plt: 14k

Peripheral Smear- Blasts and Auer rods

BM- Hypercellularity, diffuse involvement by AML (75% blasts)

EKG: Normal

FISH- Negative for t(15:17), CD34+ myeloblasts positive

Final dx- Acute Myeloid Leukemia

Problem Representation: 57 year old male with exertional chest pain presenting with chest pain, dyspnea, and palpitations with elevated white blood cell counts, elevated MCV, and anemia.

Teaching Points (Rafa):

- **CHEST PAIN IN A 57 YO**

  Rule out emergency first: 4 + 2 + 2

  Esophageal rupture / esophageal impaction

  ACS, Takotsubo,aortic dissection, tamponade

  PE, pneumothorax

  Important to characterize the pain: does it irradiate? Is it new? Does is get worse with movement? Is it constant? Comes and goes - ACS? Any dyspnea associated - sinister causes?

  Abdominal etiologies: pancreatitis, gastric volvulus, cholecystitis

- **SMOKING HISTORY**

  Think about primary lung pathology

  COPD, ILD, neoplasia , pulmonary arterial hypertension

- **TACHYCARDIA** - sinus or non-sinus (ECG)

  Pulmonary causes: advance pulmonary disease, can also predispose to arrhythmias

- **SUPER ELEVATED WBC**

  Leukemoid reaction # leukemia

  Peripheral blood: leukemoid reaction w/ cells usually more mature than myelocytes.

  LAP activity: high in a leukemoid reaction but low in CML

  Basophilia - uncommon - think about myeloproliferative disorders like polycythemia vera, myelofibrosis and CML.

- **AUER RODS**

  Crystal aggregates of MPO) - danger: Auer rods can stimulate the coagulation cascade - DIC

  Classically a/w APML