08/20/25 Morning Report with @CPSolvers

"One life, so many dreams" ***Case Presenter***: *Rabih Geha (@rabihmgeha)* ***Case Discussants***: *Dr. Dan Restrepo (@)*

Scribing (Lera)

CC: 46 M with **hemoptysis**

HPI: Page from ER for admission.

Discharge 5 y ago: admitted for severe hemoptysis, CXR and CT showed bleeding in lungs, some GGOs, no obvious bleeder / cavity / other lesion. Bleeding stopped by itself + inhaled TXA.

Now: Abruptly started coughing blood 2 days ago, towels used. 5-10 CCs noticed in the sputum cup.

2 similar episodes, no problems in between.

ROS: No fever / cough / malaise / weight loss / SOB.

PMH: Healthy at bl, doesn't follow with healthcare care

Meds: not on AC

Fam Hx: none relevant

Social Hx: no limitation in activity on job

Health-Related Behaviors: 1-2 drinks / week, social drinker

Vitals: T, BP, HR, RR, Sat: all normal

Exam: General exam: unremarkable

HEENT, cardio, abdominal, neuro, MSK: unremarkable

Pulm: isolated crackles in RUL

Notable Labs & Imaging:

Hematology: WBC: nl Hgb: nl Plt:nl MCV: nl

Basic chemistry: normal **UA**: normal

CXR: consolidation in RUL, no bony / mediastinal / pleural pathology

CT with angio protocol: GGOs in RUL, no focal lesion or evidence of active extravasation.

-> Rapid response called for massive hemoptysis -> rapid sequence intubation, "bad lung down", taken to ICU.

Bedside bronch: large amount of blood from RUL, no obvious endobronchial lesion or anomaly in other airways.

Invasive angiogram: bronchial artery in RUL visualized as bleeding source -> embolized.

-> Culprit artery rebleeds, patient taken to the OR -> RUL lobectomy done.

Dx: pulmonary Dieulafoy lesion.

Problem Representation: A previously healthy 46 y/o man presented with isolated recurrent hemoptysis. Labs and imaging at the time and 5 years ago didn't reveal any extra hemoptysis clues. Patient underwent RUL lobectomy and was Dx w/ pulmonary Dieulafoy lesion.

Teaching Points (Anmolpreet):

I] Hemoptysis: Differentiate from **epistaxis** and **hematemesis** !

True hemoptysis: anatomic approach→ tip of nose to alveoli (Parenchyma vs Vascular) eg: alveolar haemorrhage, pneumonia, pulmonary AVMs); *Common*: LRTI in the setting of coagulopathy/anticoagulants; vasculitis; lung malignancy

Quantify the bleeding!

Recurrence: ***painless episodic brisk hemoptysis*** [ask for history of nose bleed, look for vascular lesion in mouth, alveolitis is lower down in differential because won't develop that briskly] - need to evaluate because of recurrence

II] Distant organ involvement: going through ROS: rash, ulcers in mouth, raynaud's! While evaluating labs and imaging: *What am I looking **for**? Not What I am looking at?*

Urinalysis (more than just UTIs) would help, if the hematuria and proteinuria are seen there too, we would prioritise a systemic cause of hemoptysis

III] Hemoptysis without anemia: does not necessarily reflect that he is not losing out a lot of blood.

IV] Pulmonary CT angiogram protocol (CTPA): lighting up of right side of heart with pulmonary artery; can rule out pulmonary embolism

Systemic CT angiogram protocol: wait a few seconds, then the contrast lights up the left side of the heart and we can visualise bronchial arteries. (*Bronchial artery angiogram*)

V] Massive hemoptysis-management: Assess A-B-C, evaluate need for endotracheal intubation and secure the airway→ bronchial artery angiogram→ embolisation as needed.

VI] Classic scenario: bronchiectasis (surprising with a negative CT), ?AVM, congenital defect

VII] Bronchial artery bleed: is life-threatening!! Presents with hemoptysis; bleeding at systemic arterial pressure.

VIII] Dieulafoy lesion: dilated submucosal vessel!; classically seen in the stomach wall in the setting of gastrointestinal bleeding; Pulmonary dieulafoy lesion is exceedingly rare!! - primarily vascular abnormality, not an issue with parenchymal!!- presents with periodic bleeding. Pulmonary Dieulafoy is possibly underdiagnosed!