A CAVITARY DILEMMA



- 50 year old female, presented initially to a general practitioner with C/O left upper limb pain, acute onset, throbbing type, for 2 days.
- Patient is a known case of diabetes mellitus and hypertension.
- Pulse was feeble on palpation. So she was advised CT scan of left upper limb.

CT SCAN OF LEFT UPPER LIMB

- Thrombosis of left ulnar artery just distal to elbow for about 29mm in length with distal reformations.
- Total occlusion of left radial artery at the level of wrist.
- Eccentric soft plaque in left subclavian artery causing 20-30 % stenosis.



- After CT scan she was referred to vascular team.
- Vitals are stable on admission.
- Suspecting upper limb thrombosis and plan for thrombectomy, patient was admitted in ICU.



- There is no H/O fever, cough, weight loss, appetite loss.
- H/O passive smoking
- There is no H/O taking OCP pills, no immobilization, no recent malignancy.

Breast examination normal

DIFFERENTIAL DIAGNOSIS

- Infection TB, invasive fungal infection
- Vascular cause Wegeners Granulomatosis
- Pulmonary embolism
- Cavitating malignancy
- Pulmonary infarct

TC - 8420, HB- 9.6, PLT - 424	RFT - NORMAL, LFT - NORMAL
PT- 13.6, INR - 1.15	pANCA, c ANCA NEGATIVE
D DIMER - 566	HOMOCYSTEINE- 5.6
APCR-V RATIO - 2.59	LDH - 175 , CARDIAC ENZYMES - NORMAL

WELL'S SCORE

criteria	score	
clinical signs and symptoms of dvt	0	
PE is likely	3	
HR > 100	0	
Immobilisation > 4 wks or recent surgery	0	
previous DVT or PE	0	
Hemoptysis	0	
malignancy	0	

REVISED GENEVA'S SCORE

	criteria	score
	age > 65	0
	previous DVT or PE	0
	Surgery or limb fracture in past 6 months	0
	Active malignancy	0
	Unilateral limb pain	3
and	Hemoptysis	0
	heart rate	0
	pain on lower limb palpation or unilateral edema	0
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2-D ECHO

- Normal systolic LV EF 60%.
- No segmental motion abnormality.
- Mild LV diastolic dysfunction.
- Mild pulmonary hypertension 40 mmhg.
- No clot seen.
- No RV dysfunction

VENOUS DOPPLER OF LOWER LIMB - no DVT









LESIONS IN LINGULA AND LEFT UPPER LOBE WITH INTERNAL FLUID DENSITIES AND CAVITATIONS.







 ECCENTRIC FILLING DEFECTS AT LEFT PULMONARY ARTERY BIFURCATION AND IN UPPER AND LOWER LOBAR PULMONARY ARTERIES REMAIN SAME WITH SOME EXTENSION INTO SEGMENTAL BRANCHES SUGGESTIVE OF CHRONIC PULMONARY THROMBO EMBOLISM.

To rule out vascular - c ANCA, p ANCA done - negative

Patient recieved anticoagulation in ICU.

 Whole body PET scan done, which confirmed cavitary lesion in left lung with no significant FDG uptake anywhere else in body.

 As vascular team wants to proceed for surgery and to rule out malignancy, asked for a CT guided biopsy of lesion.

SPECIMEN :

CT guided biopsy- Left lung

GROSS:

Received four greyish white friable soft tissue cores ranging from 1.3-2 cm. (A-B)-All processed

MICROSCOPY & IMPRESSION:

Sections show multiple cores of Lung tissue showing marked infiltration by chronic inflammatory cells predominantly composed of plasma cells & lymphocytes. -Some of area show patent alveoli containing few RBCs & fibrin in the alveolar space. -Few area show fibrosis.

-One area show necrosis along with acute inflammatory cell infiltrate.

-No evidence of malignancy seen.

- ZN stain is negative for acid fast bacilli

Impression - Features are consistent with infract . Negative for malignancy /gran

*** End Of Report ***



- Biopsy report turned out to be pulmonary infarct.
- Patient is on anticoagulation treatment now on oral anticoagulation.
- Her chest x ray improved.



- Pulmonary infarction- one of the key complication in PE.
- Occurs in 10-15 % of patients with PE.

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Etiology

- ➤Most common PE
 - ➤ Infection
 - ➤ Malignancy
 - ≻Amyloidosis
 - ➤ Vasculitis



- Incidence 1 in 1000
- Pulmonary infarction occurs when blood supply to a particular section of lung is blocked.

Pulmonary Infarction Common Symptoms Lightheadedness Fever Coughing or spitting up blood Persistent hiccups (rare) Severe shortness of breath Chest pain Weakness verywell



Predictors of Pulmonary Infarction Miniati, Massimo MD, PhD; Bottai, Matteo PhD, ScD; Ciccotosto, Cesario MD; Roberto, Luca MD; Monti, Simonetta MD, PhD

- In the setting of acute pulmonary embolism (PE), pulmonary infarction is deemed to occur primarily in individuals with compromised cardiac function.
- The current study was undertaken to establish the prevalence of pulmonary infarction in patients with acute PE, and the relationship between infarction and: age, body height, body mass index (BMI), smoking habits, clot burden, and comorbidities.
- The authors studied prospectively 335 patients with acute PE diagnosed by computed tomographic angiography (CT) in 18 hospitals
 throughout central Italy. The diagnosis of pulmonary infarction on CT was based on Hampton and Castleman's criteria (cushion-like
 or hemispherical consolidation lying along the visceral pleura). Multivariable logistic regression was used to model the relationship
 between covariates and the probability of pulmonary infarction.
- The prevalence of pulmonary infarction was 31%. Patients with infarction were significantly younger and with significantly lower prevalence of cardiovascular disease than those without (P < 0.001). The frequency of infarction increased linearly with increasing height, and decreased with increasing BMI. In logistic regression, the covariates significantly associated with the probability of infarction were age, body height, BMI, and current smoking. The risk of infarction grew with age, peaked at approximately age 40, and decreased afterwards. Increasing body height and current smoking were significant amplifiers of the risk of infarction, whereas increasing BMI appeared to confer some protection.
- data indicate that pulmonary infarction occurs in nearly one-third of the patients with acute PE. Those with infarction are often young and otherwise healthy. Increasing body height and active smoking are predisposing risk factors.



• All cavitating lesions are not TB / malignancy



THANK YOU