KREP

2025

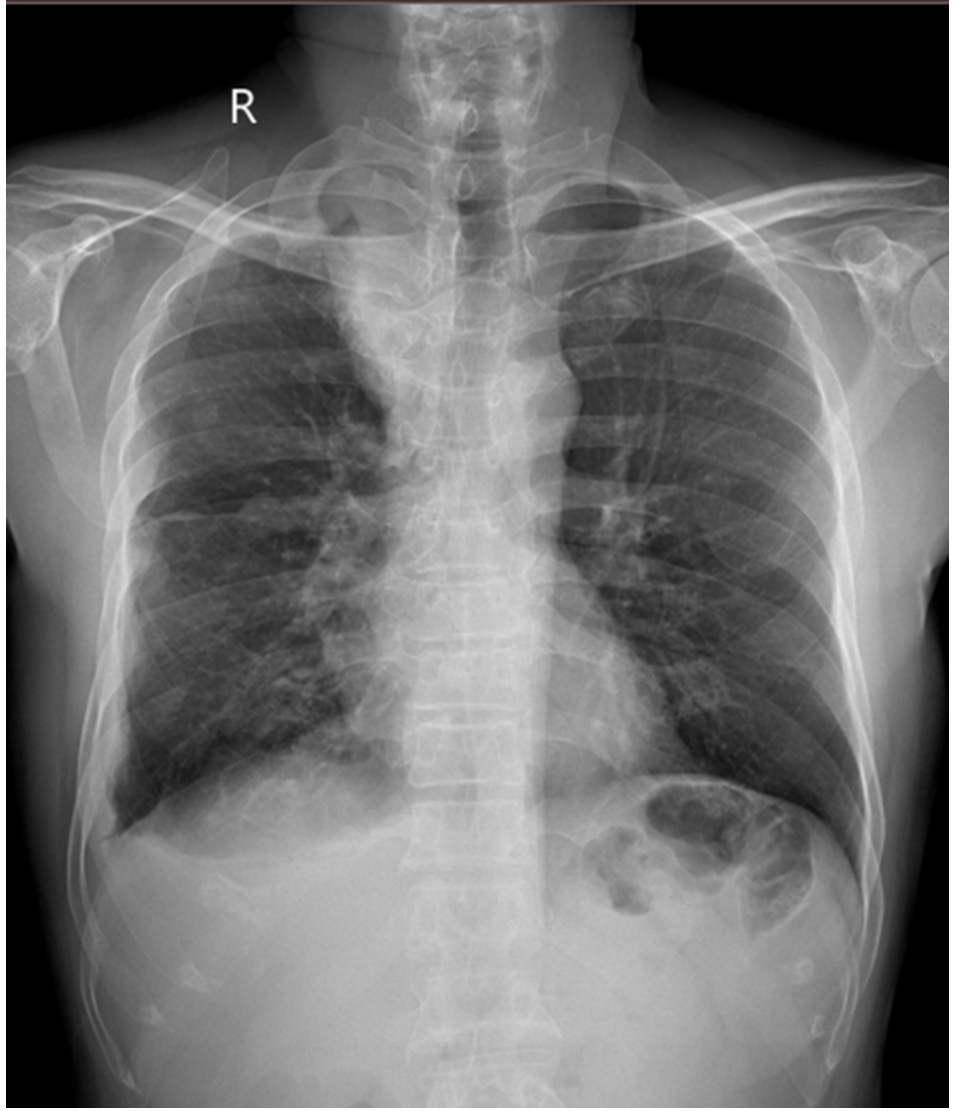
KARNATAKA RADIOLOGY EDUCATION PROGRAM

MODERATOR: DR AVINASH M KATUR
ASSISSTANT PROFESSOR, DEPT OF RADIO-DIAGNOSIS
JJMMC, DAVANGERE
PRESENTOR: Dr Sana, PG Resident

HISTORY:

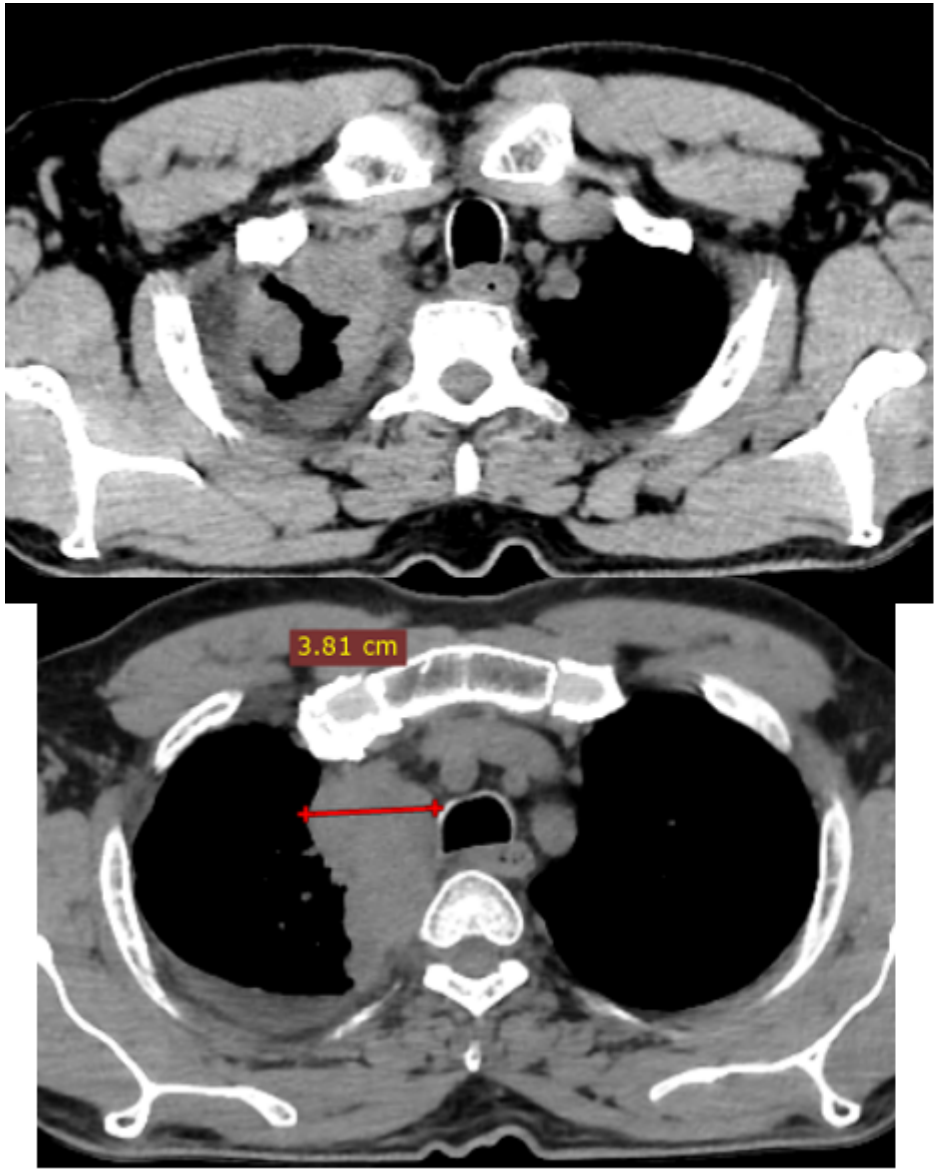
- 53 year old male
- C/O breathlessness since 1 week.
- C/O cough with expectoration since 1 week
- No h/o fever or chest pain
- No h/o weight loss, loss of appetite

Past history: No similar complaints in the past
Occupational history: Construction worker for 12 yrs
O/E: General physical and systemic examination-Normal

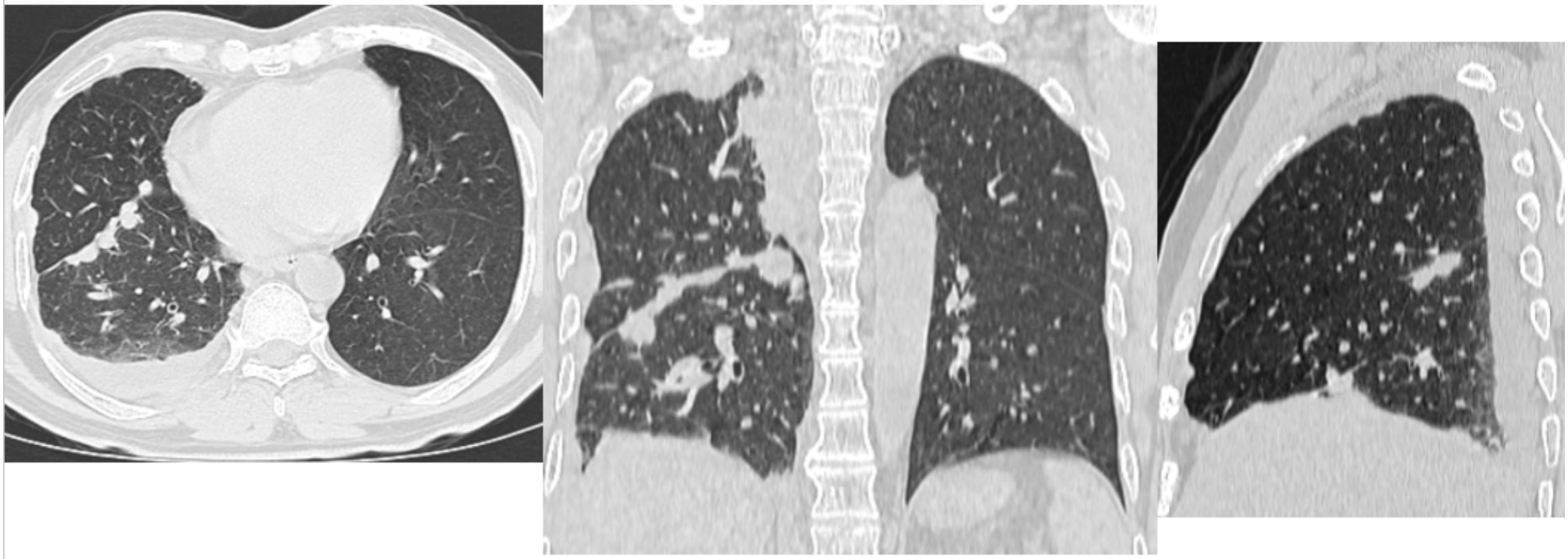


Well defined, smoothly marginated homogenous opacity in the right para-tracheal region causing widening of the superior mediastinum. Medially the lesion is causing obliteration of right paratracheal stripe & pushing the trachea towards left. Superiorly it is seen extending above the level of clavicle- Cervico-thoracic sign positive (Likely posterior mediastinal). Lobulated, nodular homogenous opacities along the right lateral costal pleura, making an obtuse angle with the adjacent lung parenchyma- suggesting Nodular pleural thickening causing obliteration of the right costophrenic

- **Few nodular homogenous opacities are in the right lower zone.**

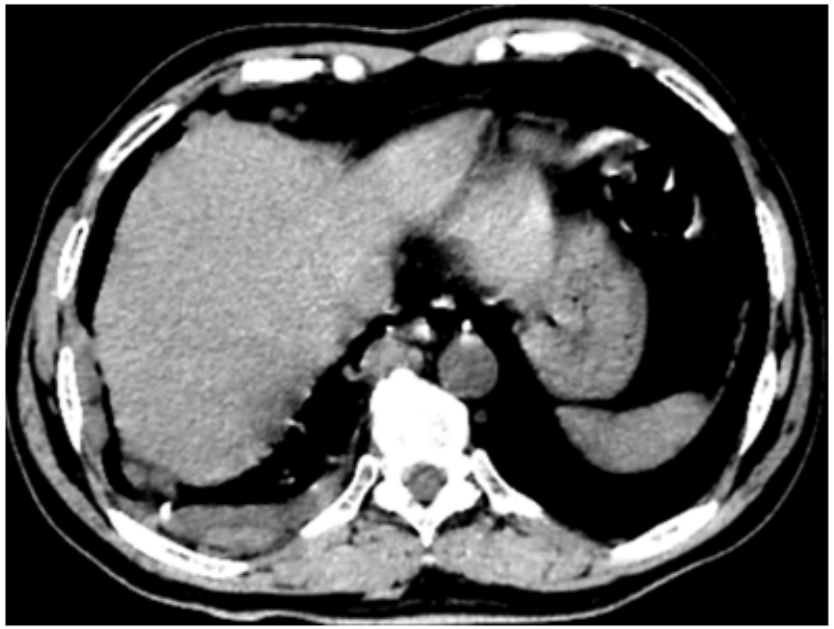
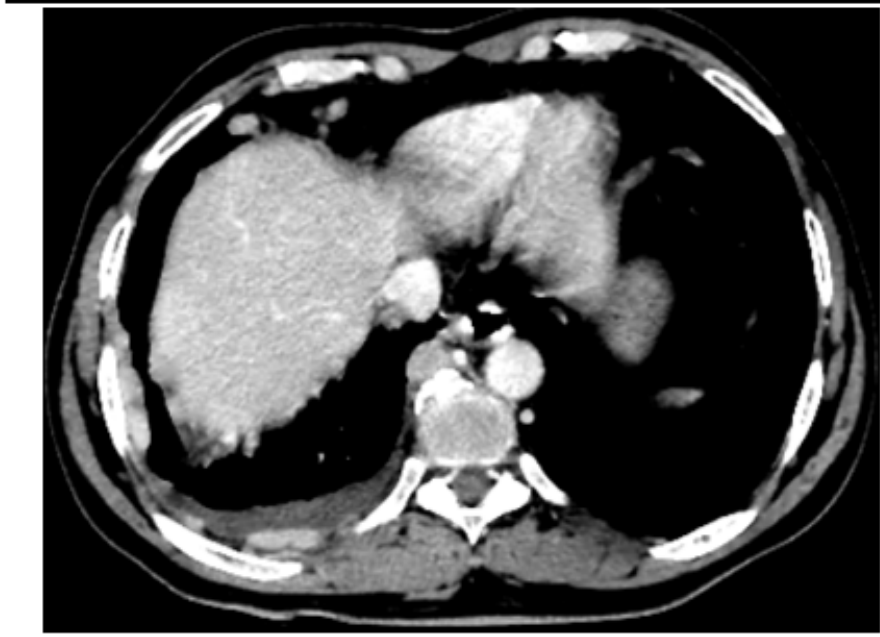


The axial and coronal reformatted images of NCCT thorax in mediastinal window showing diffuse irregular nodular pleural thickening noted along the right apical, mediastinal, costal and diaphragmatic pleura of max. thickness 3.8 cm in mediastinal pleura.

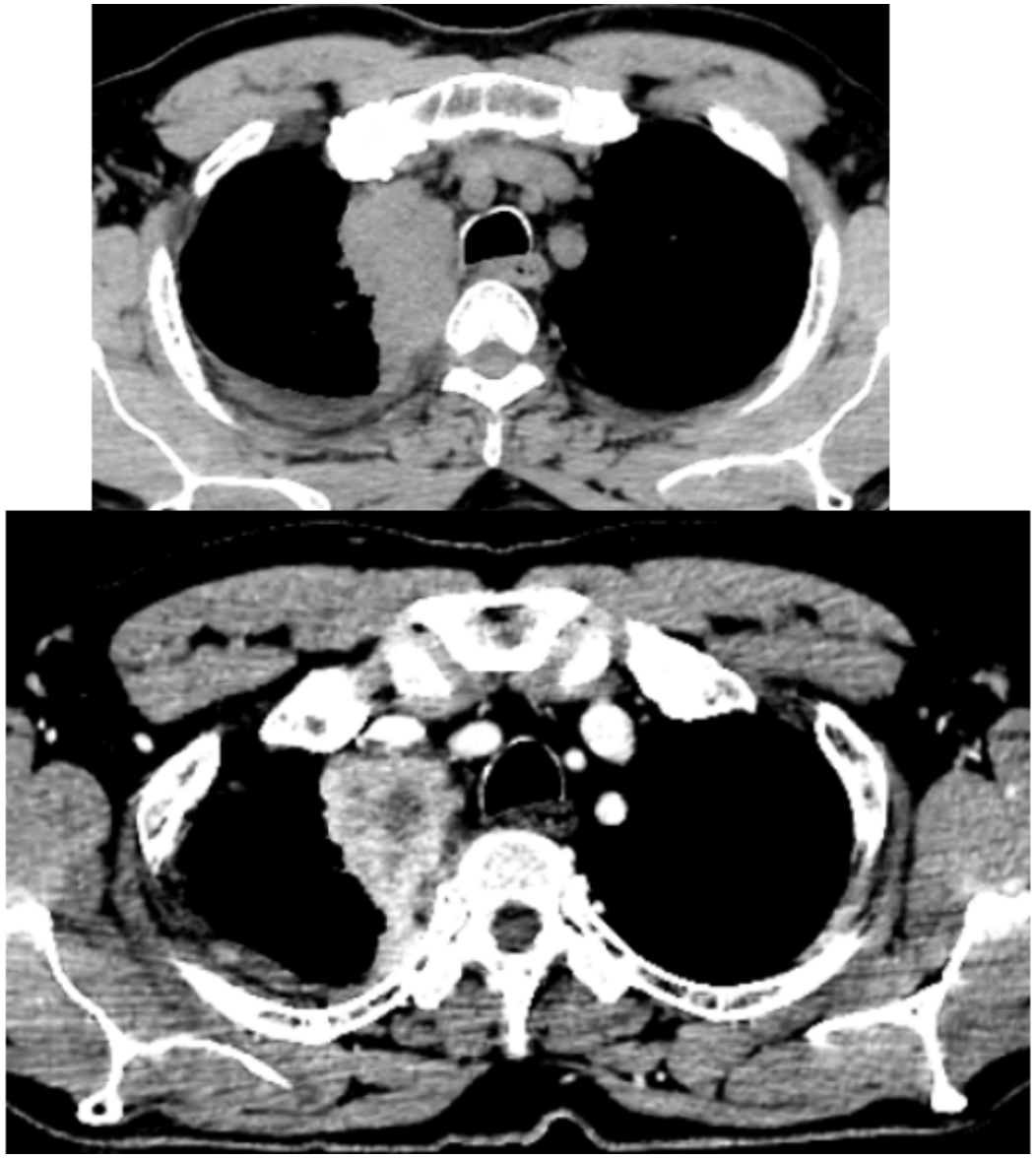


E/o multiple well defined nodular soft tissue density lesions noted extending along oblique and horizontal fissures with broad base towards the fissure.



On post contrast study the nodular pleural thickening showed homogenous enhancement.



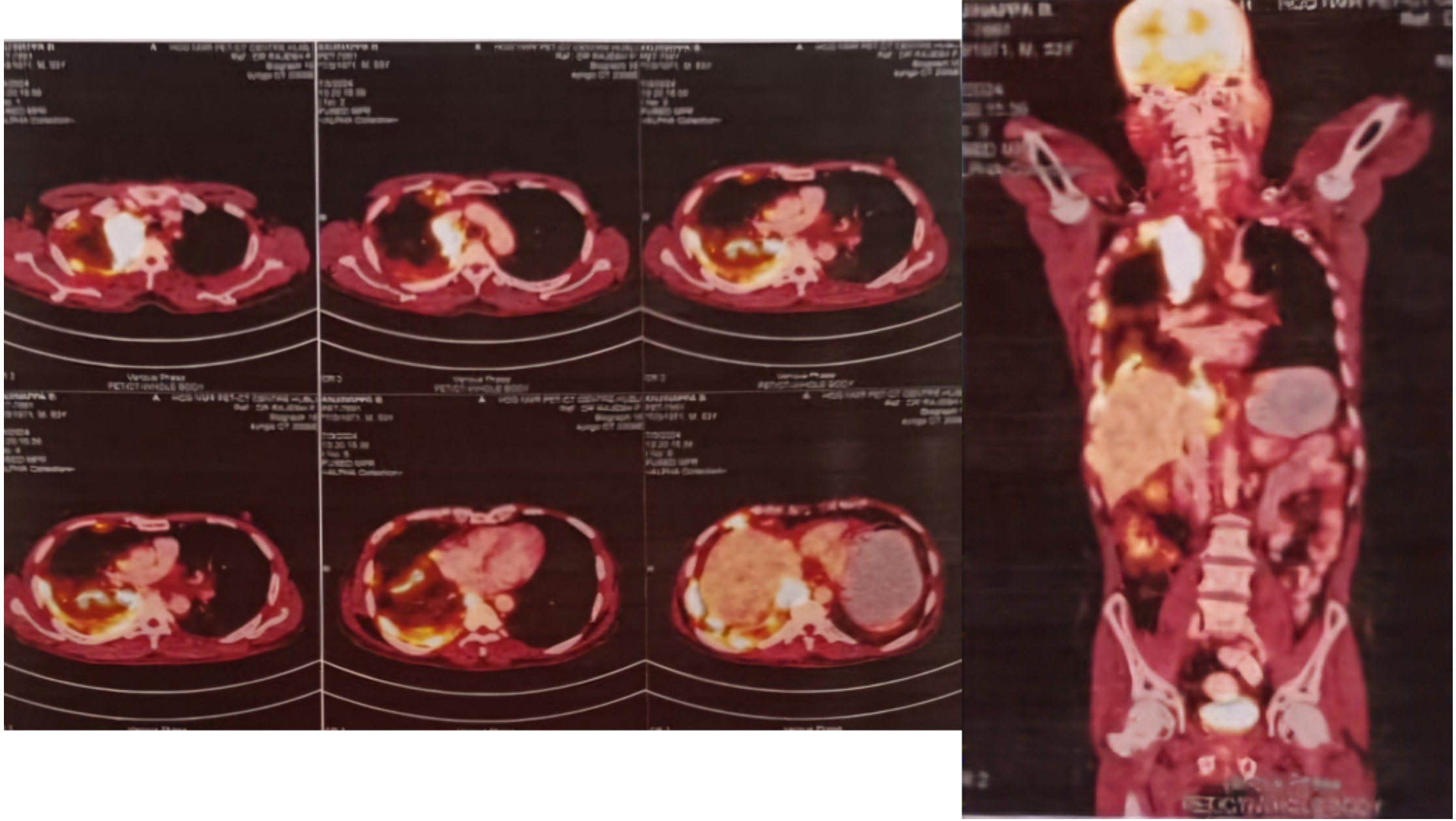
However the mediastinal pleura showed heterogeneous enhancement with central non-enhancing areas within suggesting necrosis. Anteriorly the lesion was seen compressing the SVC, however there was invasion/ filling defect noted.

Findings

- Diffuse irregular nodular heterogeneously enhancing pleural thickening along the right apical, mediastinal, costal and diaphragmatic pleura with few areas of necrosis within and associated,right mild pleural effusion.
- Multiple well defined nodular enhancing soft tissue density lesions along the oblique and horizontal fissure with broad base towards fissure and few showing speculated margins.

  → **F/S/O Malignant Mesothelioma**

(Presumptive radiological staging T3 N0 Mx)



Diffuse nodular pleural thickening along the right apical, mediastinal, costal and diaphragmatic pleura showed increase FDG uptake on PET-CT

8296767218

NMR HCG CURIE CENTRE

DEPT. OF NUCLEAR MEDICINE AND PET-CT

Timing : 9.00 am to 6.00 pm

Regd. Office : Behind Revankar Motors, Deshpande Nagar, HUBLI - 580 029.

Patient Name:	Referring Physician:
Anjinappa B	**DR Rajesh P**
Gender:	File Number:
Male	**7661**
Age:	Exam Date:
53 Yrs	**03.07.24**

18FDG PET/CT scan:

Procedure:

Images were acquired on Biograph 16 PET/CT system from vertex to the mid of thighs (standard protocol). PET acquisition was acquired 2 minutes/bed post 60 minutes uptake time after IV injection of 10 mCi 18F-FDG dose.
Corresponding CT images with oral & IV contrast were also acquired, reconstructed, and fused alongside with the PET images.

History: MUO - search for primary.

Findings:

Head and neck:
Brain demonstrates physiologic FDG metabolic activity with no evidence of active focal lesions. (All the brain metastases may not be apparent on that CT scan and MRI head may be performed where clinically indicated).

No focal hypermetabolic nasopharyngeal, oropharyngeal or hypopharyngeal lesions.
No focal hypermetabolic supraglottic, glottis or infraglottic lesions.
No evidence of hypermetabolic cervical or supraclavicular lymph nodes bilaterally.
Physiological FDG metabolic activity in the thyroid gland, salivary glands, adenoids and the vocalis.

Chest:
Asymmetric nodular right pleural thickening- masses seen along the parietal, visceral, diaphragmatic, perifissural surfaces of pleurae and along the mediastinal pleura, largest along the mediastinal pleural along the apical segment of right upper lobe lung measuring 3.6x 7x7.3 cm SUV: 48.3.
Minimal right pleural effusion seen,
Few prominent prevascular, previously- paratracheal , aortopulmonary window , subcarinal lymph nodes are seen, largest measuring g 1.2 cm in paratracheal region with no significant metabolic activity .
Few prominent bilateral axillary lymph nodes are seen, largest measuring 0.7x 1.5 cm in right axilla with preserved fatty hilum and with no significant metabolic activity – likely reactive.
Heart and great vessels normal. Physiological myocardial FDG metabolic activity.
No evidence of pleural and pericardial effusion.

PTO...

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Abdomen

Anterior abdominal wall normal.
Great abdominal vessels normal.
Physiological limits of FDG metabolic activity in the liver as well as the spleen, pancreas, both adrenals and bowel with no evidence of active focal lesion.
Physiological excreted FDG activity in both pelvicalyceal system and urinary bladder.

Pelvis

Anterior and inner pelvic walls normal
Prostate and seminal vesicles are unremarkable.
Free pelvic fluid none
Pelvic lymph nodes normal

Musculoskeletal:

Physiological limit of FDG metabolic activity in the musculoskeletal system with no evidence of active focal lesions. No lytic or blastic foci.

IMPRESSION:

- ASYMMETRIC NODULAR RIGHT PLEURAL THICKENING- MASSES SEEN ALONG THE PARIETAL, VISCERAL, DIAPHRAGMATIC, PERIFISSURAL SURFACES OF PLEURAE AND ALONG THE MEDIASTINAL PLEURA – LIKELY REPRESENTING PLEURAL MESOTHELIOMA. SUGGEST HISTOPATHOLOGY CORRELATION FOR THE SAME.
- MINIMAL RIGHT PLEURAL EFFUSION SEEN.
- FEW PROMINENT PREVASCULAR, PREVIOUSLY- PARATRACHEAL , AORTOPULMONARY WINDOW , SUBCARINAL LYMPH NODES – LIKELY METASTATIC.
- NO EVIDENCE OF HEPATIC AND SKELETAL METASTASES.
- OTHER CT FINDINGS ARE AS DESCRIBED ABOVE.

Authorized signatory:

Dr. Prashanth. G.R
Consultant Nuclear Medicine.