

#### Medanta

Patient ID : MM02003150 Patient Name : Mr. Sanjeev Singh

Gender : Male Age : 47Y

Admission Date : 30/11/2024 19:08 Location : 7th Floor B1

#### **Nuclear Medicine Report**

# DEPARTMENT OF NUCLEAR MEDICINE & PET-CT

Sanjeev Singh Male/47Y,

MM02003150 DATE: 13-12-2024

## <sup>18</sup>F -FDG PET-CECT WHOLE BODY

CLINICAL DATA: Case of right lung mass with pleural effusion under evaluation.

**TECHNIQUE:** Whole body PET-CT scan was performed after I. V administration of F-18 FDG. PET and contrast enhanced CT images were acquired and reconstructed to obtain transaxial, coronal and sagittal views. Fused PET-CT images were generated.

Blood sugar level during the time of FDG administration was 140 mg/dl.

Findings: Previous CT chest dated 7/12/2024 is available for review.

<u>BRAIN:</u> Enhancing FDG avid nodular lesion seen in left cerebellar hemisphere, measuring ( $\sim$ 1.1 x 0.8 cm SUVmax 14.0). Mild perilesional oedema seen.

#### **NECK:**

Oral cavity: nil significant

Pharynx: The nasopharyngeal and oropharyngeal cavities are normal. Larynx: Supra glottic, glottic and subglottic larynx appear normal. Salivary glands: Bilateral parotid and submandibular glands are normal.

Thyroid: normal in size and attenuation with no focal lesion.

Deep neck spaces: nil significant

Nasal cavity and Paranasal sinuses: nil significant

Orbits: Bilateral orbits are normal.

Vessels: Great vessels of the neck are normal in course and calibre.

Lymphadenopathy: Enlarged FDG avid lymph node with central necrosis seen in right supraclavicular region, measuring (size 1.3 x 1.1 cm, SUVmax 5.4).

### **THORAX**:

Post CABG status.

LUNGS AND PLEURA: FDG avid (SUVmax 12.5) large heterogeneously enhancing and para hilar mass/consolidation is seen in right lung, involving all the lobes, more in the middle and lower lobes encasing all the lobar, segmental and subsegmental bronchi and vessels with surrounding ground glass haziness, interstitial septal thickening and bronchial wall thickening. Measuring size 9.1 x 5.0 X 13.2 cm (AP x TR x CC). Encasing right pulmonary artery and abutting left atrium with focal indistinct fat plane. Smaller discrete areas of air space opacities are seen in right upper lobe and right lower lobe with heterogeneous FDG uptake.

Mosaic attenuation with interstitial septal thickening in left lung. Few peribronchovascular patchy ground glass opacities seen in basal segments of left lower lobe.

Mild right pleural effusion with extension into the oblique and horizontal fissures and associated collapse-

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Speciality : Respiratory & Sleep Medicine Attending Practitioner : Dr Anand jaiswal & Team

consolidation in right lower lobe. Moderate left pleural effusion with collapse-consolidation in left lower lobe.

TRACHEA AND MAIN BRONCHI: Trachea is in midline with normal divisions at the carina. Tracheobronchial tree is normal.

CARDIA AND GREAT VESSELS: Heart is enlarged in size with enlargement of LA & LV. Post MVR status. There is trace pericardial effusion. Median sternotomy noted. Aorta appears normal in dimensions. Few minor calcifications are seen in the aortic root and knuckle.

Pulmonary arteries are prominent and MPA measures 2.7cm.

ESOPHAGUS: nil significant THYMIC REGION: nil significant

LYMPHADENOPATHY: FDG avid multiple enlarged pre-paratracheal, prevascular (size ~2.3 x 1.7 cm, SUVmax 8.7), AP window, precarinal, subcarinal and bilateral hilar lymph nodes are seen, showing heterogeneous enhancement and necrotic changes, larger discrete node measuring approximately size~2.4 x 3.2 cm, SUVmax 5.4 in right lower para-tracheal region, as before. Few confluent nodes are seen in right hilar region.

FDG avid enlarged lymph nodes seen in left paraoesophageal, left internal mammary (size 1.3  $\times$  1.1 cm, SUVmax 10.8), and cardiophrenic/ diaphragmatic/ region.

#### **ABDOMEN:**

LIVER: normal in size. An ill-defined hypoenhancing FDG avid lesion seen in segment II of liver measuring ~ 1.5 x 1.6 cm, SUVmax 11.8.

No evidence of IHBR dilatation.

SPLEEN: normal in size, shape and contrast enhancement. No focal lesion is seen.

GB AND BILIARY SYSTEM: Gallbladder is partially distended and appears normal with normal wall thickness. No radiodense intraluminal calculus is seen. CBD is not dilated.

PANCREAS: Pancreas is normal in size, shape, and contrast enhancement. MPD is not dilated. Peripancreatic fat planes are preserved.

ADRENALS: **FDG** avid hypodense lesion noted in left adrenal measuring (size ~1.0 x 0.9, SUVmax 5.5). Right adrenal gland appears largely normal.

KIDNEYS: Both kidneys are normal in size, shape and contrast enhancement. No evidence of calculus/hydronephrosis is seen. Mild bilateral perinephric fat stranding seen.

BOWEL, MESENTERY, OMENTUM: no significant abnormality

LYMPHADENOPATHY: **FDG** avid multiple enlarged variable sized lymph nodes seen in bilateral retrocrural, gastrohepatic, portocaval, periportal, retropancreatic, aortocaval, retrocaval, left para-aortic regions, largest measuring size~ 1.8 x 1.4cm, SUVmax 13.8 in portocaval region.

ABDOMINAL VESSELS: nil significant

FLUID IN ABDOMEN: Trace free fluid seen in pelvis.

URINARY BLADDER: partially distended. Bilateral ureters are not dilated.

PROSTATE and SEMINAL VESICLES: nil significant

INGUINAL ORIFICES: nil significant

CHEST AND ABDOMINAL WALL: nil significant

Mild FDG avid heterogeneously enhancing avid soft tissue density lesion seen in subcutaneous plane overlying left deltoid muscle, measuring size  $\sim$ 1.8 x 1.4 cm, SUVmax 3.0.

### **SKELETAL SYSTEM:**

FDG avid innumerable sclerotic lesions seen in bilateral proximal femora, bilateral pelvic bones, cervical-dorsal - lumbar - sacral vertebrae at multiple levels, bilateral scapula and multiple ribs bilaterally.

### **IMPRESSION:**

Metabolically active large heterogeneously enhancing and para hilar mass/consolidation in right lung

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with bronchovascular encasement, surrounding ground glass haziness, patchy opacities, interstitial septal thickening and bronchial wall thickening as described above--possibility of neoplasm--suggested HPE correlation.

- Mild right pleural effusion and moderate left pleural effusion with underlying collapse-consolidation.
- Few peribronchovascular patchy ground glass opacities in basal segments of left lower lobe-? Infective.
- Metabolically active right supraclavicular, mediastinal and abdominal lymph nodes as described above likely metastatic.
- Metabolically active left adrenal, liver and multiple skeletal lesions as described above likely metastatic.
- Metabolically active brain lesion-likely metastatic as described above needs MRI correlation.
- Mild metabolically active heterogeneously enhancing soft tissue density lesion in subcutaneous plane overlying left deltoid muscle-? Metastatic.
- No hypermetabolic focus noted in the visualized body suggestive of malignant disease during present scan.

Dr. Amit Kumar Singh

Radiologist Nuclear Physician