

COMMENT :

- Recto sigmoid CA with loco regional lymph node metastasis.
 - Lung and possible liver metastasis
 - No bone metastasis
- T3N2bM1b

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Dr. (Mrs) Samantha Perera. MBBS, DCH, MD(Radiology)
Consultant Radiologist,
National Hospital,
Kandy.

Department of Nuclear Medicine

Whole body PET-CT Report

Name : Dr.Ranjith Wickramasinghe

Age/Sex :63Y/M

Ref. No : RC00013892

Referred By:Dr.S.L.Kandegedara

PET CT No:551/24

Date: 10.07.2024

Whole body F-18 Fluorodeoxyglucose (FDG) PET CT imaging was performed from the vertex to upper calves 60 minutes following intravenous administration of 5.16 mCi of F18 FDG using GE Optima 560 dedicated 8 slice/sec PET-CT system without breath holding instruction. Intravenous contrast enhanced CT scan was performed for anatomical localization and attenuation correction. The images were reviewed in axial, coronal and sagittal projections. A semi quantitative analysis of FDG uptake was performed by calculating SUV max value corrected for dose administered and patient body weight. The blood sugar level was 114 mg/dl at the time of injection of tracer.

Indication: Known patient with adenocarcinoma of the upper rectum with hepatic and pulmonary metastases undergone laparoscopic anterior resection and non anatomical resection of metastatic lesion in segment VI of liver on 14.07.2023 and Microwave ablation of metastatic lesions in segment V and IV A of liver on 27.07.2023 followed by six cycles of chemotherapy. PET CT scan being done to reassess the response to treatment. Images were reviewed with last PET CT scan done on 22.11.2023.

FINDINGS

Head and Neck

No FDG avid or non FDG avid focal parenchymal lesions are identified in the cerebral or cerebellar hemispheres or in the brain stem, which maintain it's normal CT morphology, attenuation characteristics and normal distribution of metabolic activity. The ventricular system, basal cisterns and cortical sulci are within normal limits. There are no areas of infarctions, intra axial or extra axial mass lesions. No metabolic abnormality is detected in the skull vault or base.

Previously noted non FGD avid retention cyst in the left maxillary sinus inferiorly is again observed. Rest of the paranasal sinuses remain clear bilaterally.

Mild to moderate degree of increased FGD uptake is observed in bilateral lingual and palatine tonsils and are more in favour of inflammatory in origin.

The pharynx, larynx and para pharyngeal spaces maintain it's normal CT morphology and otherwise normal distribution of metabolic activity.

Evidence of bilateral lensectomies are observed. The orbits, globes, optic nerves and extra ocular muscles maintain it's otherwise normal CT morphology & normal distribution of metabolic activity.

Few prominent non FDG avid lymphnodes with preservation of it's normal fatty hila in level 2A of the neck bilaterally are again observed and are more in favour of reactive hyperplasia. Largest lymphnode is in the right side measuring 9.6mm in diameter and relatively larger lymphnode in the left sided level 2A group measures 9.2mm in diameter.

No new prominent, enlarged or FDG avid lymphnodes are present in the neck or supraclavicular region.

No FDG avid or non FDG avid focal lesions are present in the bilateral parotid or submandibular glands or in the thyroid gland which maintain it's normal size, shape, attenuation pattern and normal distribution of metabolic activity.

Chest:

Mid-sternotomy sutures and evidence of CABG are again observed. Few prominent and minimally enlarged non FDG avid lymphnodes with preservation of it's normal fatty hila in the axillae bilaterally, most likely representing reactive hyperplasia are again observed and largest lymphnode in the left axilla measures 1.39cm in diameter and relatively larger lymphnode in the right axilla measures 1.15cm in diameter.

No prominent or enlarged or FDG avid lymphnodes are present in the subpectoral or internal mammary groups.

Previously noted few non FDG avid prominent lymphnodes with preservation of it's normal fatty hila in the mediastinum are again observed. Relatively larger lymphnodes in right para tracheal, pre carinal and para aortic groups measure 5.1, 9.0 and 6.0mm in diameters respectively in the current scan (6.5, 9.9 and 6.6mm in diameters respectively in the previous scan). Previously noted minimally FDG avid similar lymphnode in aorto-pulmonary window group is non FDG avid in the current scan and measures 8.0mm in diameter (8.2mm in the previous scan).

No new prominent, enlarged or FDG avid lymphnodes are present in the mediastinum or hila. Right sided Hickman's line is in situ. Great vessels of the mediastinum are within normal limits and mediastinal blood pool shows SUV max of 2.40.

Previously described minimally FDG avid small areas of patchy consolidations interspaces with ground glass opacities and thickened interstitium in the lower lobes bilaterally are not present in the current scan. Gravity dependent changes are present in the posterior segments of the lungs bilaterally, particularly marked in lower lobes where there are few non FDG avid areas of plate atelectasis too.

A small minimally FDG avid low attenuated parenchymal measuring 4.4mm in diameter with SUV max of 3.93 is identified in apico-posterior segment of upper lobe of left lung (image 98). No similar nodules or other FDG avid or non FDG avid focal parenchymal nodules are identified in the lungs. Rest of the lung are clear bilaterally.

There is no pleural or pericardial effusion.

Abdomen and Pelvis

Previously noted changes of diffuse fatty infiltration of the liver are again observed and remain almost unchanged. Hepatic parenchyma shows SUV max of 3.16. Liver which is not enlarged and maintains it's smooth regular contour. Known ablated lesion in the segment 5 of right lobe antero-laterally remains almost unchanged in size, shape, attenuation pattern and metabolic activity. No new non FDG avid or FDG avid focal lesions are identified in the liver. Intrahepatic and extra hepatic ducts are not dilated. Portal venous and hepatic venous radicles are within normal limits. Main portal vein is normal in caliber and no filling defects are present within. Gall bladder maintains it's normal distensibility and mural thickness. No calculi are present within it.

No FDG avid or non FDG avid lesions are present in the pancreas, spleen, kidneys or adrenals, which maintain it's normal CT morphology, attenuation characteristics and normal distribution of metabolic activity.

Previously noted minimally FDG avid, ring enhancing area in the transitional zone of prostate gland could not be identified in the current scan. But previously noted iso FDG avid well defined low attenuated area in the central glandular zone, immediately lateral to the previously described lesion is again identified and it shows moderate degree of FDG avidity in the current scan measuring