



DEPARTMENT OF RADIOLOGY
JINNAH POSTGRADUATE MEDICAL CENTRE, KARACHI



Name: Asif Humayun	Age: 71 Years	Date: 23-05-2024
Ref. Physician: Dr. Muhammad Umair	Contact #: 0333-5243843	ID #: 10419-24

PET-CT Scan

HISTORY:

Complains of fever on and off for one month.
 Moderately differentiated adenocarcinoma of head of pancreas.
 Status post Whipple procedure done dated 13-07-2023.
 Status post chemotherapy, 03 cycles completed on 22-04-2024
 30 F of radiotherapy completed on 08-03-2024.

CLINICAL INDICATION: Follow-up scan.

DOSE: 244.2 MBq of F-18 Flourodeoxy glucose.

PROCEDURE:

Finger stick blood glucose level: 201 mg/dl.
 Fasting: 4 hours.

Scan delay after administration of F-18 FDG: 1 hour 10 minutes.
 PET images were obtained from skull through the mid-thighs.

A low dose plain CT scan was obtained over the same region for anatomic correlation and attenuation correction.

Reference SUV mean value over liver: 1.2.

CTDI = 4.9 mGy.	DLP = 543.4 mGy.cm.
Height = 165 cm.	Weight = 50 kg.

COMPARISON: Prior PET scan of AKUH dated 06-12-2023.

CORRELATIVE STUDY: Prior CT of dated 13/5/2024, 23/2/2024, 22/12/2023, 21/11/2023 are correlated.

FINDINGS:

HEAD/NECK:

Symmetrical physiological uptake in brain parenchyma.

Linear increase activity in the left side of scalp at parietotemporal region involving temporalis and masseter muscle without adjacent bony erosion.

Left-sided sphenoid sinusitis without metabolic activity.

Nasopharynx, oropharynx and larynx grossly appear normal. No metabolic activity noted.

No evidence of FDG avid bilateral cervical lymph nodes seen.

From the base of skull to the thoracic inlet, there is symmetric, physiologic distribution of activity.

CHEST:

Mild bilateral apical fibrotic changes noted similar to that of prior scan and CT scan.

Calcified granuloma seen in the left upper lobe.

Few tiny non-specific scattered pulmonary nodules seen without metabolic activity.

Bilateral basal atelectatic changes noted more marked in the right basal region.

There is no evidence of abnormal focal increased parenchymal lung uptake.

There is no adenopathy in the mediastinum, hilum or axilla by size criteria or metabolic activity.

Normal distribution of the radiotracer with in the myocardium.



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ABDOMEN/PELVIS:

Evidence of Whipple procedure with non-visualization of pancreatic head consistent with history of surgery. Pancreatic body and tail appear normal. A stent is seen in the pancreatic duct without metabolic activity. Metallic sutures seen at anastomotic site without metabolic activity.

Moderate intrahepatic duct dilatation noted. No pneumobilia seen, mild thickening seen at porta hepatis without metabolic activity. No FDG avid mass seen at porta.

Multiple FDG avid lesions seen in both lobes of liver giving branching infiltrating pattern more marked in left lobe, the largest ill-defined lesion in left lobe measures 3.6 x 3.9 cm with SUVmax of 3.1, it was not seen in previous PET scan or CT scan.

Another FDG avid lesion in the right lobe involving segment VI, showing SUVmax of 3.3 and 3.5.

A small hypodense, hypometabolic focus is also seen in segment VI suggest benign lesion, it was also seen in previous CT scan.

Small non FDG avid mesenteric and retroperitoneal nodes seen.

FDG avid nodule is seen along the anterior abdominal wall below the umbilicus, measures 1.4 x 1.3 cm with SUVmax of 2.1 suggest scar deposit. It was also seen in the previous CT scan and was not present on prior PET scan.

Moderate fat stranding noted in mesentery and omentum without metabolic activity.

Mild ascites seen in the pelvic region.

Urinary bladder appears mildly thick walled due to cystitis and mildly enlarged prostate gland with prostatic calcification noted.

Fecal loaded distended colon noted.

No abnormal uptake seen in spleen and both adrenal glands.

Normal distribution of the radiotracer within the genitourinary system.

SKELETAL:

Homogenous diffuse uptake seen in the spine and the bones most likely due to rebound phenomenon secondary to previous chemotherapy.

Reduced activity noted in the thoracolumbar spine due to radiotherapy status.

There is no suspicious hypermetabolic osteolytic or osteosclerotic lesions.

CONCLUSION:

Ca head of pancreas. S/p Whipple procedure followed by chemo and radiotherapy.

Evidence of Whipple procedure with non-visualization of pancreatic head, the pancreatic body and tail appears normal with intact pancreatic duct stent without metabolic activity.

Moderate intrahepatic duct dilatation without evidence of pneumobilia, suggest obstruction.

Multiple FDG avid lesions in both lobes of liver giving branching infiltrating pattern more marked in left lobe with SUVmax of 3.1, findings suggest cholangitis with cholangitic abscess, other possibility of co-existing metastases cannot be entirely excluded.



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FDG avid nodule is seen along the anterior abdominal wall below the umbilicus with SUVmax of 2.1 suggest scar deposit with few small non FDG avid mesenteric and retroperitoneal nodes. Moderate fat stranding in mesentery without metabolic activity and mild pelvic ascites, findings suggest peritoneal disease – ascitic fluid aspiration is recommended for further evaluation.

No other pulmonary, adrenal and bony metastases seen.

As compared to prior CT scan and PET scan, interval increase in hepatic lesions noted with stable nodule along the scar.

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SIF HUMAYUN
1071Y-1-
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Scale 1:7.66 FOV 1664.0 x 1090.4m
[1] m = 0.0 M = 7.



[1] Functional (PET AC) SUV BW: 0.67 g/ml

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