DEPARTMENT OF NUCLEAR MEDICINE & PET/CT

Name	:	**PURNIMA MISHRA**	Date	:	**19/08/2025**
Age/Sex	:	**34 YEARS / FEMALE**	PT No.	:	**BLK/PT/CT/39634/25**
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WHOLE BODY PET/CECT SCAN

PROCEDURE: *Whole body PET/CT scan was performed 60 minutes after intravenous injection of 10.9 mCi of ^{18}F-FDG, in a multidetector 16 slice, time of flight Discovery GE 710 PET/CT scanner from vertex to mid-thigh. A separate sequence with breath hold (deep inspiration) was performed for lung examination. Serial multiplanar sections were obtained after intravenous contrast administration of Omnipaque. Images were reconstructed using Vue Point FX and Sharp IR, and slices formatted into transaxial, coronal and sagittal views. A semi-quantitative analysis of FDG uptake was performed by calculating SUV_{max} value corrected for dose administered and lean body mass (g/ml). The patient's blood glucose (as measured by glucometer) was 105 mg% at the time of injection and body weight was 61 kg.*

CLINICAL DATA: Suspected case of carcinoma ovary. CA-125 is 2500 units/mL, CA 19.9 is 811000 units/mL. PET/CT scan being done for **whole body evaluation.**

FINDINGS:

The overall distribution of FDG is within normal physiological limits.

Head & neck:

No focal abnormally increased FDG concentration is seen in bilateral cerebral or cerebellar hemispheres.

(Note: If there is a strong suspicion for brain metastasis then MRI is suggested for further evaluation as small lesions may not be detected on an FDG PET/CT study due to normal high physiological uptake in the brain.)

Normal physiologic uptake noted in the nasopharynx, oropharynx, hypopharynx and larynx.

Minimal mucosal thickening with no abnormal FDG uptake noted in left maxillary sinus.

Soft tissue thickening with increased FDG uptake noted in bilateral tonsillar regions.

Both lobes of thyroid gland are mildly enlarged in size. Few small hypodense lesions with no abnormal FDG uptake noted in both lobes.

There is no significant cervical lymphadenopathy seen with abnormal FDG uptake.

Note: Metabolically active lesions noted on ^{18}F-FDG PET/CT study need histopathology correlation for confirmation

Thorax and mediastinum:

There is no supraclavicular or axillary lymphadenopathy.

Soft tissue thickening with minimal FDG uptake noted in anterior mediastinum; likely thymic tissue.

No focal pulmonary parenchymal lesion with abnormal FDG uptake seen. There is no evidence of pleural thickening seen on either side. The trachea and both main bronchi appear normal.

Note is made of minimal bilateral pleural effusion with underlying subpleural fibroatelectatic changes.

There is no hilar or mediastinal lymphadenopathy.

The heart and mediastinal vascular structures are well opacified with intravenous contrast.

Few small lymph nodes with maintained fatty hilum and no abnormal FDG uptake noted in bilateral axilla.

Bilateral breast appear unremarkable.

Abdomen & pelvis:

Liver is enlarged in size with a craniocaudal extent of 18.4 cm with diffuse hypoattenuation suggestive of fatty changes. **Few ill-defined non-enhancing hypodense lesions with mild FDG uptake noted in both lobes of liver, largest in caudate lobe measuring 3.4 x 3.4 cm SUV_{max} 3.35.** *Intrahepatic biliary radicles are not dilated.*

Gall bladder is partially distended with thickened gallbladder wall.

Spleen is enlarged in size with the AP diameter of 13.3 cm with normal FDG uptake.

No focal lesion with abnormal FDG uptake is seen in the pancreas, adrenals and kidneys.

Stomach, small and large bowels appear normal in caliber and fold pattern.

Few small lymph nodes with minimal FDG uptake noted in peripancreatic and aortocaval regions.

Note is made of diffuse peritoneal thickening with increased FDG uptake.

There is evidence of omental thickening with mild FDG uptake.

There is evidence of mild ascites.

Urinary bladder is normal in size, shape and distension.

A large thick walled cystic mass with no abnormal FDG uptake noted in the midline and pelvis with fat fluid levels and few foci of calcification measuring 8.0 x 10.5 cm. Right ovary is not visualised separately.

Uterus is well visualised. FDG avid fluid noted in endometrial cavity. Few cystic lesions with mild FDG uptake noted in left adnexa. Note is made of nabothian cyst in the uterine cervix.

Musculoskeletal:

Few degenerative changes noted at the spine.

Marrow uptake is within normal limits.

IMPRESSION:

PET/CT scan reveals metabolically active lesions involving liver and abdominal lymph nodes with omental and peritoneal thickening with minimal bilateral pleural effusion and mild ascites; findings are likely malignant in nature and need biopsy correlation.

A large non-FDG avid thick walled cystic soft tissue mass noted in mid pelvis with fat fluid levels and few calcific foci within; likely dermoid cyst. Right adnexa is not visualised separately.

Dr. Saurabh Arora
Senior Consultant

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Verified by Dr. Kumar
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