

Name : KANTILAL BHALODIA 65 Y MALE
MRN NO : 43094
Referring Doctor : DR. MANASI SHAH
INVESTIGATION : Ga68 - PSMA PET-CT SCAN
Date : 10.10.2023

Clinical history: Known case of metastatic adenocarcinoma of prostate, post bilateral orchidectomy, 6 cycles chemotherapy and hormonal therapy. Post 3 cycles cabazitaxel therapy from February 2022 to April 2022. Presented with rising serum PSA level (605 ng/ml dated 15.04.2022). post 177Lu-PSMA 5 cycles of therapy (Last Feb-2023). For follow-up evaluation.

Protocol:

Approximately 60 min after the IV administration of 3.0 mCi of 68Ga-PSMA11, whole body PET images were obtained from the vertex to mid-thighs using SIEMENS Biograph 16 True Point scanner. Axial, sagittal and coronal PET reconstructions were interpreted with attenuation correction, corresponding post IV and oral contrast CT images were performed. SUVmax was calculated based upon body mass. S. Creatinine level: 0.7 mg/dl

Comparison study: PSMA PET-CT scan dated: 18.04.2022

Findings:

Physiologic tracer distribution seen in lacrimal gland, salivary gland, gut, liver, spleen, kidney and urinary bladder.

Head:

Post craniotomy status is noted in parietal bone.

Both cerebral hemispheres are normal. Ventricular system and basal cisterns appear normal. Cerebellum and brainstem appear normal.

Neck:

Non PSMA avid tiny right level IV lymph node (previous SUVmax 12.7) – post treatment burnt out lymph node.

Oral cavity is normal. Oral tongue, base of tongue and floor of mouth is normal. Nasopharynx, oropharynx and hypopharynx are normal. Larynx is normal. Both side parotid and submandibular glands are normal. Paranasal sinuses and both orbits are normal. Major neck vessels are normal. No significant abnormality is seen in thyroid gland.

Chest (with separate HRCT scan):

Both lung fields are clear.
No evidence of mediastinal lymphadenopathy.
No evidence of pleural effusion.

Abdomen and Pelvis:

Focal high grade PSMA avid enhancing lesion seen in anterior aspect of base of prostate gland, measuring 14 x 13 mm, SUVmax. 11.7.

Non PSMA avid subcentimeter sized ovale shaped bilateral external iliac lymph nodes are seen – reactive.

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Fatty infiltration of liver is seen.

GB, spleen, pancreas, both adrenals and both kidneys are normal.

Urinary bladder and prostate are normal. No evidence of ascites is seen.

Bone and Soft Tissue:

Variable grade PSMA avid skeletal lesions - cricoid cartilage, skull, bilateral scapula, clavicles, sternum, bilateral humerus head, multiple bilateral ribs, multiple vertebrae, bilateral pelvic bones, and proximal bilateral femur 20.9 (previous SUVmax 92.4 in left acetabulum).

Wedging with reduced vertebral body height is noted in L1 and L5 vertebrae.

SUVmax in sacrum is 8.1 (previous SUVmax. 69.3) without soft tissue component. D2 lesion shows associated soft tissue component with left paravertebral extension and minimal intraspinal extension, SUVmax. 23.9 (previous SUVmax. 29.2).

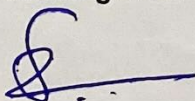
IMPRESSION:

Known case of metastatic adenocarcinoma of prostate, post bilateral orchidectomy, 6 cycles chemotherapy and hormonal therapy. Post 3 cycles cabazitaxel therapy from February 2022 to April 2022. Presented with rising serum PSA level (605 ng/ml dated 15.04.2022). post 177Lu-PSMA 5 cycles of therapy (Last Feb-2023). For follow-up evaluation.

As compared to previous PET-CT scan dated: 18.04.2022,

- New appearance of PSMA expressing recurrent malignant lesion in prostate gland.
- Complete resolution of right internal iliac and common iliac nodes, as well as right level IV neck lymph node.
- Overall, significant reduction in PSMA expression in metastatic skeletal lesions with increase sclerotic component, many of lesions show complete resolution of PSMA expression with complete resolution of sacral lesion soft tissue component. However, new appearance of soft tissue component at D2 lesion.

Overall findings shows good treatment response with reduction in skeletal tumour burden, except new development of small recurrent malignant lesion in prostate gland.



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