

MEDICAL REPORT

PATIENT NAME			
HIS ID			
EXAMINATION DATE	24-08-2023		
DOB			
POLICE ID		GESY REGISTRY NO	

Procedure: 18F-PSMA PET/CT scan

Dr. Zamboglou C.

Medical History: Invasive ADC of the prostate, Gleason 5, in 2001 treated with 2xHyperthermia. Bicalutamide 2018-2021; PSA rise-> PSMA-expressing prostate malignancy with seminal vesicles invasion on 68Ga-PSMA PET/CT of May 2022 + pelvic/extrapelvic and bone secondaries. In November 2022, Goserelin and Enzalutamide, SBRT in December 2022 with partial biochemical response (PSA= 80ng/ml). Currently, PSA= 128ng/ml.

Indication/Medical question: Restaging.

Patient's personal data: Weight= 86 Kg, Height= 180 cm

Technique: Imaging was performed 120 minutes after intravenous administration of 222 MBq 18F-PSMA (Prostate-Specific Membrane Antigen). Images were acquired using a Discovery IQ2 PET/CT system (4 rings; 16 slices) of General Electric. The images were obtained from head to mid-thighs in supine position with elevated arms. Axial, sagittal and coronal PET reconstructions with and without attenuation correction were performed. Corresponding CT images were reviewed in axial, coronal and sagittal planes. The CT scan was a limited non-contrast study for the purposes of anatomical correlation and attenuation correction (only pertinent findings will be reported). This resulted in a total DLP of the CT-examination of 844 mGy-cm. All SUV measurements provided are given as SUV Peak (as measured in the MAC plus QClear reconstruction using commercially available software) unless otherwise stated.

Comparison: 18F-PSMA PET/CT of 20.12.2022 and external Whole Spine-MRI of 21.07.2023.

Findings:

Head/Neck:

Physiological radiopharmaceutical distribution in the lacrimal and salivary glands. Mastoid cells and paranasal sinuses free. Partial response of left lower cervical LN lesions, currently only one is detected presenting faint PSMA-expression (from

Se2752/Im84 to Se2751/Im93).

Thorax:

In the low-dose CT, no evidence of suspicious pulmonary lesions. Absence of pleural or pericardial effusion. Normal appearance of the mediastinal lymph nodes without PSMA expression. Complete response of the left infraclavicular LN metastasis.

Abdomen/Pelvis:

Physiological radiopharmaceutical distribution in the abdominal organs and intestine. Partial response of prostate malignancy and its extension to left seminal vesicle in terms of intensity and extent of PSMA-extension (from Se2752/Im246-258 to Se2751/Im257-266). Almost complete response of the infradiaphragmatic LN lesions.

Musculoskeletal system:

Progress of the intensity and extent of some of the known skeleton metastases, e.g. of left iliac bone (from Se2752/Im210,238 to Se2751/Im219,247), right iliac bone (from Se2752/Im234 to Se2751/Im243) and L2 (from Se2752/Im181 to Se2751/Im189). Partial to complete response of the rest osseous secondaries; the vital lesions present less intense PSMA-expression (e.g. from Se2752/Im97 to Se2751/Im105).

Impression

Under treatment mixed response with:

- Progress of the intensity and extent of some of the known skeleton metastases.
- Partial to complete response of the rest osseous secondaries, of the primary prostate malignancy extended to seminal vesicle left and of the infra- and supra-diaphragmatic LN spread.
- No new PSMA-expressing secondaries.

Patient primarily eligible for 177LuPSMA.

With kind regards,

Prof. Dr. Alexis Vrachimis, MD, PhD
Director of Nuclear Medicine

Dr. Ioannis Tsechelidis
Nuclear Medicine Physician

(The report has been electronically signed), 24-08-2023 14:41