

**458th Hospital of Chinese People's Liberation Army
PET-CT Center**

Name: TONCIU RALUCA

Date: 05/08/2015

Gender/Age: F/34

Ref. Dr.: Zhengtong

Examination: Whole body scan

PET No.: P03268

**POSITRON EMISSION TOMOGRAPHY/COMPUTER TOMOGRAPHY
(¹⁸F-FDG ONCOLOGY)**

TECHNIQUE:

Under fasting state for at least 6hrs, the fasting blood glucose is 3.9mmol/L. Positron emission tomographic (PET) scan, coupled with CT scan was acquired 60 minutes after intravenous administration 18F-FDG. CT data was used for attenuation correction and anatomical correlation. The images were reviewed in the transaxial, coronal and sagittal projections.

FINDINGS:

After the surgery of right breast cancer and comprehensive treatment of systemic multiple metastases, the right breast prosthesis is visible. No soft tissue nodules with increased radioactive uptake and no enlarged lymph nodes on the right chest wall and right armpit. There is less dense shadows on the left breast, the margin is still clear, no abnormally increased radioactive uptake. Multiple enlarged lymph nodes of varying size are noted on the left armpit, hili of bilateral lungs and mediastinal region (group 2, 4, 7), the largest cross-section is about 1.5cm × 1.6cm, slightly poor-defined margins, PET shows increased radioactive uptake, SUVmax of 5.2, SUVavg of 4.3.

The brain is developed normally. The radioactive uptake on bilateral frontal lobes, parietal lobe, temporal lobe, occipital lobe, bilateral basal ganglia, thalamus, and bilateral cerebellum is symmetrical, without abnormal increased or decreased FDG avidity. CT shows no abnormal shadows on the brain parenchyma. Sulci, split brain and cistern are not widened and expanded, and the density is normal. The nasopharynx shape is normal, no abnormal radioactive uptake is found. No obvious abnormalities on the maxillofacial area and neck in terms of structure, morphology and radioactive uptake.

Stripped increased-density shadows are found on the right upper pleura and middle lobe of right lung, no abnormally increased radioactive uptake. There are small patchy fuzzy shadows on the anterior segment of upper lobe of right lung, no abnormally increased radioactive uptake. The remaining bilateral lung markings are slightly fuzzy, no solid lesions and no abnormal foci FDG avidity on the remaining lungs.

Liver shape is full and the radioactive uptake of liver parenchyma diffusely increases. There are multiple nodular increased radioactive uptakes in the liver; the largest cross-section is about 1.9cm × 1.8cm, SUVmax of 4.9, SUVavg of 4.1, CT shows generally uneven liver parenchyma. Multiple small patchy low-density shadows and small nodules are scattered in the liver, poor-defined margins, CT value of 34Hu. Intrahepatic bile duct dilatation is detected. Gallbladder has been surgically removed; metal anastomat is noted on the surgical area. Spleen size is normal. There is a little patchy increased radioactive uptake on the gastric antrum, CT shows local mucosal slightly blurred. Pancreas shape and size are normal, no abnormal foci FDG avidity is found. Stomach and duodenum are displayed normally. Pancreatic shape and size are normal and no abnormal focal FDG avidity is seen. Bilateral kidneys and bilateral ureters are displayed normally. There is a little physiological uptake on each segment of colon, no significantly occupying lesions are found. Small lymph nodes are found on the retroperitoneal region. Bladder is displayed normally. Uterus and bilateral adnexa uteri are normal in radioactive uptake.

Small stripped soft tissue shadows are noted on the subcutaneous region of bilateral upper arms, the maximum range is about 1.4cm × 1.2cm × 2.6cm, poor-defined margins, slightly increased radioactive uptake, SUVmax of 2.9, SUVavg of 2.0. Multiple increased radioactive uptake of varying size are noted on the left humerus, bilateral scapula, sternum, multiple vertebrae of spine (cervical, thoracic, lumbar and sacral vertebrae), pelvic bones and bilateral upper femur, SUVmax of 3.0-5.2, SUVavg of 2.0-2.9, CT shows multiple osteogenic and osteolytic bone destruction.

IMPRESSION:

- 1. After the surgery of right breast cancer, the right breast prosthesis is visible. No hypermetabolic tumor recurrence is found on the surgical area and right armpit.**
- 2. There are systemic diffuse bone metastases are noted. The radioactive uptake of most lesions increases, considering most bone metastases has tumor activity.**
- 3. There are enlarged lymph nodes of varying size on the left armpit, hili of bilateral lungs and mediastinum, with increased radioactive uptake, considering the some metastatic lymph nodes has tumor activity.**

4. The radioactive uptake of liver diffusely increases. Multiple hypermetabolic nodules are scattered in the liver, considering diffuse liver metastases (you are recommended to do enhanced CT scan to rule out chronic liver damage).
5. There are small nodules with slightly increased radioactive uptake on the subcutaneous region of bilateral upper arms, considering metastases.
6. Localized hyperplasia is noted on the left mammary gland; old inflammation on the right upper pleura and middle lobe of right lung; inflammatory lesion on the anterior segment of upper lobe of right lung.
7. Gastric antral inflammation.

Chief Physician:

Note: This translated script is for your reference only. If some errors were made, please check the original report in Chinese. Thanks for your referral.

05/08/2015