The technique for image acquisition

[¹⁸F]FDG PET/CT

The scan was performed 60 minutes after intravenous injection of approximately 370 MBq of [¹⁸F]FDG using Biograph 6 PET/CT scanner (Siemens Medical Solutions, Erlangen, Germany). Image acquisition was performed from vertex to mid-thigh in a caudocranial manner, in 3D mode with 3 minutes per bed position. Also, non-diagnostic CT (80 mAs, 80-130 keV, pitch of 0.8 and slice thickness of 5 mm) was done prior to the PET acquisition for purpose of attenuation correction and localization. The PET images were reconstructed using CT for attenuation correction and ordered subset expectation maximization algorithm (four iterations and eight subsets).

[99mTc]Tc-denatured red blood cell ([99mTc]Tc-DRBC) scintigraphy

Three ml of the patient's blood was withdrawn and labeled with 99m TcO4⁻. After heat damage (49.5° C for 15 minutes), the radiotracer was reinjected. Two hours after re-injection of 66 MBq of [99m Tc]Tc-DRBC, spot views were obtained from the thoracic and abdominal regions in anterior and posterior projections. The acquisition was performed using a dual-head gamma camera (Siemens-Symbia T1), equipped with a low-energy high resolution (LEHR) parallel-hole collimator with a matrix size of 128×128 for 2 minutes for each view (140 keV energy window with 10% width).

SPECT/CT

Tomographic acquisition was performed using the same equipment in a non-circular orbit using 7 sec/frame for ninety frames and 128×128 matrix size with zoom of 1. CT scan was obtained for anatomical correlation and attenuation correction without oral or intravenous contrast medium injection (spatial resolution 3mm, 110 kV, 60-80 mAs).