Summary

Performance Evaluation of Dual-Head Coincidence Gamma Camera for Positron Imaging

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[Aim and Methods] We assessed the performance evaluation of a dual-head coincidence gamma camera (Millennium VG, General Electric, Milwaukee, USA) as a positron emission tomography (PET) scanner based on the measurement indicator for performance evaluation of PET device.

[Results] The axial spatial resolution was 4.98 mm FWHM at the center of the field of view. The true high count-rate characteristic curve was relatively straight within the range 0–0.2 μCi/ml. The relative recovery coefficient was 0.1 with a diameter of 10 mm and 0.39 with a diameter of 20 mm.

[Conclusion] In this study, we had to make a some change in the protocols described in the measurement indicator for performance evaluation of PET devices.

Key words: Positron, Dual-head, Coincidence, Gamma camera.