

Clinical Experience of Utilization of Positron Emission Tomography with ¹¹C-methionine in Patients with Newly Diagnosed Lung Tumors

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Abstract

In the present study we evaluated the diagnostic capabilities of PET with ¹¹C-methionine in patients with newly diagnosed lung tumors. 107 patients with lung lesions were included in the study. The level of radiopharmaceutical accumulation in patients with malignant lung tumors was significantly higher than in patients with inflammatory disease ($p \leq 0,0001$). The pathological accumulation of ¹¹C-methionine in patients with benign lung tumors was not found. The sensitivity of PET with ¹¹C-methionine in differential diagnosis of lung space-occupying lesions were 89,5 %, specificity – 82,5 %, diagnostic accuracy – 86,9 %, negative predictive value – 86,7 %, positive predictive value – 87,1 %.

Key words: Positron Emission Tomography, ¹¹C-methionine, Malignant and Benign Lung Tumors, Inflammatory Diseases.

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