

PubMed

U.S. National Library of Medicine
National Institutes of Health

Display Settings: Abstract

Clin Nucl Med. 2009 Oct;34(10):698-9.

Unexpected detection of melanoma brain metastasis by PET with iodine-124 betaCIT.

Cascini GL, Ciarmiello A, Labate A, Tamburrini S, Quattrone A.

Department of Nuclear Medicine, University of Catanzaro, Catanzaro, Italy. cascini@unicz.it

To study the potential impact of iodine-124-beta-carbomethoxy-3beta(4-iodophenyl)tropane (I-124 betaCIT) in Parkinson disease, a I-124 betaCIT-PET scan was performed in 30-year-old man with suspected early Parkinson disease. The scan showed normal striatum uptake together with a focal spot in the left parietal cortex. The subsequent magnetic resonance imaging of the brain revealed a corresponding nodular lesion, presumably representing a metastasis. After clinical and diagnostic evaluation, a malignant metastatic melanoma was discovered. betaCIT is a cocaine derivative with a high affinity for dopamine and serotonin transporters mainly used to image the density of the dopamine reuptake transporter. In fact the role of I-123 betaCIT is typically represented by Parkinsonian syndromes of uncertain classification. The iodine-124 betaCIT uptake is a marker of dopamine transporters density, and the presence of focal uptake corresponding to a lesion on magnetic resonance images suggests a specific binding in this case of melanoma brain metastasis.

PMID: 19893406 [PubMed - in process]

[LinkOut - more resources](#)