

Increased accumulations of *N*-isopropyl-*p*-[¹²³I]-iodoamphetamine related to tumefactive multiple sclerosis

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We present a 21-year-old woman with tumefactive multiple sclerosis (MS) that exhibited a rapidly progressive course. There were multiple tumor-mimicking contrast-enhance lesions with surrounding edema and mass effect on magnetic resonance imaging. Both early and delayed brain single photon emission computed tomography (SPECT) with *N*-isopropyl-*p*-[¹²³I]-iodoamphetamine demonstrated increased accumulations of the tracer and a high retention on the lesions. The SPECT findings represent a diagnostic pitfall for distinguishing MS from malignant brain tumors in patients with intracranial tumor-like lesions.

Key words: magnetic resonance imaging, multiple sclerosis, *N*-isopropyl-*p*-[¹²³I]-iodoamphetamine, single photon emission computed tomography