Teaching NeuroImages: Pseudo-abnormal DaTscan findings in meningioma-induced parkinsonism

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Figure Imaging

[¹²³I]FP-CIT (¹²³I-N-ω-fluoropropyl-2β-carbomethoxy-3β-[4-iodophenyl]nortropane) SPECT transverse (A) and coronal (B) slices showing dislocation of the right striatum upward and medially. MRI transverse T1 (C) and coronal T2 (D) sequences revealing a right frontal meningioma with mild surrounding edema.

A 71-year-old man presented with a 6-month history of rest tremor and slowness in his left hand. Apart from mild left parkinsonism, neurologic examination was unremarkable. Because response to L-dopa, up to 600 mg/d, was lacking, [¹²³I]FP-CIT (¹²³I-N-ω-fluoropropyl-2β-carbomethoxy-3β-[4-iodophenyl]nortropane) SPECT was prescribed with unexpected results: transverse and coronal slices showed the right striatum to be moved upward and medially, suggesting a structural compression rather than degenerative damage (figure). Brain MRI revealed the presence of a frontal meningioma. Caution is required when interpreting DaTscan findings,^{1,2} and morphologic imaging should always be performed first.

AUTHOR CONTRIBUTIONS

Dr. R. Erro: acquisition of data, analysis and interpretation, writing the first draft. Dr. S. Pappatà: acquisition of data, analysis and interpretation, critical

revision of the manuscript for important intellectual content. Dr. M. Picillo, Dr. M. Rocco, and Dr. G. Santangelo: acquisition of data. Prof. P. Barone: interpretation of data, critical revision of the manuscript for important intellectual content. Dr. C. Vitale: analysis and interpretation of data, critical revision of the manuscript for important intellectual content.

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The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

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