Teaching Video *NeuroImages*: Spasmodic dysphonia preceding idiopathic parkinsonism

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Figure DaTscan SPECT of the brain

(A) This image reveals the patient's near symmetrical loss of dopaminergic terminals in the striata. (B) A typical age-matched normal scan (note especially the relatively preserved signal in the putamina, i.e., the "tails of the commas" of intense signal).

An 83-year-old woman presented initially with a 20-year history of phonatory breaks (video e-1 on the *Neurology*[®] Web site at www.neurology.org), exacerbated by stress, and then recently a left hand rest tremor. After the onset of rest tremor, DaTscan SPECT of the brain, obtained in the Parkinson's Progression Markers Initiative clinical research trial,¹ revealed near symmetrical loss of dopaminergic terminals in the striata (figure), supporting a diagnosis of idiopathic Parkinson disease (PD). Most patients with PD will demonstrate vocal difficulties during their disease course,² including some with spasmodic dysphonia (focal dystonia of the intrinsic laryngeal muscles arising from a dysfunction of the basal ganglia/extrapyramidal tract), which may precede PD by many years.

AUTHOR CONTRIBUTIONS

Fady Hannah-Shmouni: drafting/revising the manuscript, study concept or design, analysis or interpretation of data, accepts responsibility for conduct of research and final approval, contribution of vital reagents/tools/patients, acquisition of data, study supervision. Marcelo Matiello: drafting/revising the manuscript, study concept or design, analysis or interpretation of data,

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DISCLOSURE

F. Hannah-Shmouni and M. Matiello report no disclosures. D. Russell is a consultant for GE Healthcare and serves on the speakers' bureau for Teva Pharmaceuticals. He reports Employment and Commercial Entity in Molecular NeuroImaging, LLC. M. Hasbani reports speaking on the following speakers' bureaus: Pfizer, Genzyme, Teva Neuroscience, EMD Serono, and Bayer. Go to Neurology.org for full disclosures.

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2. Ho AK, Iansek R, Marigliani C, et al. Speech impairment in a large sample of people with Parkinson's disease. *Behav Neurol* 1998;11:131–137.

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