

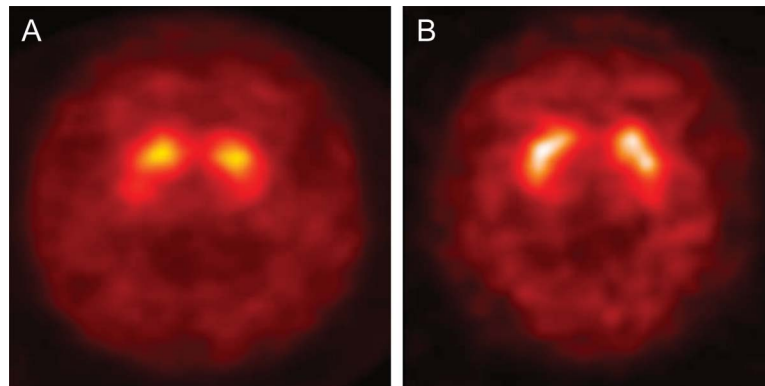
# Teaching Video NeuroImages: Spasmodic dysphonia preceding idiopathic parkinsonism



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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*<sup>®</sup> Web site at [www.neurology.org](http://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,<sup>1</sup> 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,<sup>2</sup> 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,

accepts responsibility for conduct of research and final approval. David S. Russell: drafting/revising the manuscript, analysis or interpretation of data, accepts responsibility for conduct of research and final approval, acquisition of data, study supervision. Mayer J. Hasbani: drafting/revising the manuscript, study concept or design, accepts responsibility for conduct of research and final approval, study supervision.

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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](http://Neurology.org) for full disclosures.

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Data used in the preparation of this article were obtained from the Parkinson's Progression Markers Initiative (PPMI) database ([www.ppmi-info.org/](http://www.ppmi-info.org/) data). For up-to-date information on the study, visit [www.ppmi-info.org](http://www.ppmi-info.org). PPMI—a public-private partnership—is funded by the Michael J. Fox Foundation for Parkinson's Research and funding partners, including Abbott, Avid, Biogen Idec, Bristol-Myers Squibb, Covance, élan, GE Health care, Genentech, GlaxoSmithKline, Lilly, Merck, Meso Scale Discovery, Pfizer, Roche, and UCB.

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