Slowly progressive Parkinson syndrome due to thalamic butterfly astrocytoma

A 74-year-old man had a 4-year history of slowly progressive asymmetric resting tremor, hypokinesia, rigidity, and postural instability and mild cognitive decline, initially diagnosed as Parkinson disease. Clinical response to levodopa was moderate (video on the Neurology® Web site at www.neurology.org). Additional pyramidal signs developed; cranial MRI showed a symmetric bilateral tumor of the thalamus and brainstem (figure, A and B). Biopsy revealed an anaplastic astrocytoma grade III (figure, C). Even though parkinsonism caused by a tumor is rare,1 brain imaging should be considered early when presenting with atypical clinical signs or poor levodopa response, so as to exclude potentially treatable structural causes.

T. Wächter, MD,* M. Engeholm, MD,* S. Bisdas, MD, J. Schittenhelm, MD, T. Gasser, MD, R. Krüger, MD, Tübingen, Germany

Supplemental data at www.neurology.org

MRI shows a thalamic butterfly-shaped tumor, including the cerebral peduncles and pons (A.a–A.b) without enhancement in T1-weighted images (A.c). Magnetic resonance (MR) spectroscopy shows markedly increased choline with decreased N-acetylaspartate peak and metabolic hot spot (B), suggestive of a high-grade glioma, verified by histopathology displaying glial fibrillary acid protein (GFAP)-positive tumor cells with mitoses and proliferative activity (C). FLAIR = fluid-attenuated inversion recovery.
These authors contributed equally.

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Address correspondence and reprint requests to Dr. Rejko Krüger, Department for Neurodegenerative Diseases and Hertie Institute for Clinical Brain Research and German Center for Neurodegenerative Diseases, University of Tübingen, Hoppe-Seyler-Str. 3, D-72076 Tübingen, Germany; rejko.krueger@uni-tuebingen.de


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