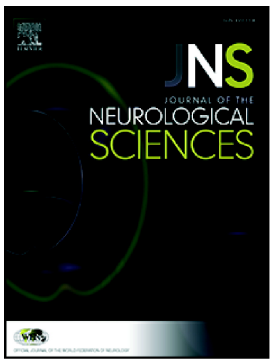

Cerebellar atrophy in different subtypes of Parkinson's disease

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PII: S0022-510X(18)30285-5
DOI: doi:10.1016/j.jns.2018.06.027
Reference: JNS 15945

To appear in: *Journal of the Neurological Sciences*

Received date: 11 May 2018
Revised date: 27 June 2018
Accepted date: 28 June 2018

Please cite this article as: Xinxin Ma, Wen Su, Shuhua Li, Chunmei Li, Rui Wang, Min Chen, Haibo Chen , Cerebellar atrophy in different subtypes of Parkinson's disease. Jns (2018), doi:10.1016/j.jns.2018.06.027

Cerebellar atrophy in different subtypes of Parkinson's disease

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Abstract

Background

To investigate, using Magnetic Resonance Imaging (MRI) and voxel-based morphometry (VBM), morphometric changes of cerebellum in Parkinson's disease with different motor and affective subtypes.

Methods

Fifty-four patients with idiopathic Parkinson's disease (PD) were classified into tremor-predominant-PD (PDT) (n = 37) and akinetic/rigidity-predominant-PD (PDAR) (n = 17). Moreover, PD groups were divided into four affective subtypes, including depressive but not anxious PD (dPD), anxious but not depressive PD (aPD), comorbid depressive and anxious PD (coPD), and PD patients without depressive or anxious symptoms (nPD). They were additionally compared at a group level with thirty-nine normal controls (NCs). An analysis of covariance followed by post hoc tests was performed to examine the alterations of cerebellar grey matter volume (GMV) in different groups of PD.

Results

Compared with NCs, PD showed grey matter (GM) atrophy in the right Crus II,

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