

Cognitive and neuropsychiatric profiles of vascular parkinsonism: a two-years longitudinal study

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Introduction: Vascular parkinsonism (VP) is a relatively frequent variant of secondary parkinsonism, typically associated with arteriosclerotic encephalopathy (AE). Nevertheless, despite their high impact on quality of life, VP cognitive profile has not been fully elucidated and little is known about VP psychiatric symptoms. Moreover, longitudinal data of VP cognitive and neuropsychiatric symptoms are lacking.

Objective: To identify specific cognitive and neuropsychiatric profiles characterizing VP and compare them to patients with vascular dementia (VD), arteriosclerotic encephalopathy without or with minimal cognitive and motor impairment (AEWCM) and healthy controls (HC), at baseline (T0), 12 (T1) and 24 months (T2).

Methods: Twenty patients with VP, 20 with VD, 20 with AEWCM and 20 HC were enrolled. All participants underwent a complete clinical, functional, neuropsychological, and neuropsychiatric assessment.

Results: Patients with VP scored significantly worse than HC at T1 and T2 in long-term verbal memory and at T2 in short-term verbal memory. VP group had increased impairment in the instrumental activities of daily living scale (IADL) at T1 and T2 respect to HC. Although no significant neuropsychiatric differences were found among groups, patients with VP exhibit higher total scores in the Hamilton Depression Rating Scale (HAMD) and Hamilton Anxiety Rating Scale (HARS) at T0, T1 and T2.

Conclusion: Verbal memory impairment found in VP is consistent with some previous studies. We hypothesize that memory deficit can be related to subclinical depressive and anxiety symptoms detected, which are known to affect memory efficiency and, more specifically, the encoding memory processes. The reduced independence in IADL in VP may depend on memory impairment and motor difficulties. Other differences may not emerge because our patients with VP are younger and more educated than patients described in the current literature. Further longitudinal studies are needed to better understand disease progression and orient the therapeutic management.

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