White matter hyperintensities and vascular dementia

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Statement of the Problem: Recent studies show that WMHs is a known risk factor for cerebrovascular events such as age, hypertension and diabetes. The aim of this study was to define the severity of White Matter Hyperintensities (WMHs) and vascular dementia.

Method: 67 patients (mean age 62.5±4.5 years) with brain Magnetic Resonance Imaging (MRI) confirmed WMHs. The severity of WMHs was further graded according to the Fazekas scale. WMHs in the deep and subcortical white matter were classified as follows: Absent (grade 0), only punctate foci (grade 1), early confluent lesions (grade 2) or confluent lesions (grade 3). Cognitive function was assessed using Montreal Cognitive Assessment (MoCA) and Mini-Mental State Examination (MMSE). Activity of Daily Life Scale (ADL) was applying for assessment of severity of activity of daily living state. Vascular dementia met the vascular dementia and differential diagnosis of other type dementia based on widely accepted criteria: Hurtig scale and NINDS-AIREN criteria with Modified Hachinski Ischemic Scale ≥7 points.

Findings: Among 67 WMHs patients 57 had been found cognitive impairment (85.07%). 41 patients among 57 cognitive impairment patients were diagnosed with vascular dementia. The cognitive dysfunction decreased gradually and ADL scores were increased accompanied with the WMHs grades increased, respectively.

Conclusion: WMHs is associated with vascular dementia. The cognitive dysfunction of vascular dementia induced by WMHs was significantly impaired in abstract thinking ability, visual spatial execution ability, delayed recall ability, orientation, attention and concentration.

Biography

Yuhong Man has her expertise in headache, cerebral disease and sleep disorders. Her research is in the basics and clinical of the acute and chronic headache, such as migraine and tension headache. She has 14 years’ of experience in neurology about cerebral disease, sleep disorders, teaching and administration, both in hospital and education institutions in Jilin University.

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