Central Nervous System Inflammatory Demyelinating Disorders in the Hong Kong Chinese

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Central nervous system inflammatory demyelinating disorders (CNS IDD) include classical multiple sclerosis, neuromyelitis optica (NMO) spectrum disorders, a single attack of/recurrent acute disseminated encephalomyelitis, a single attack of idiopathic acute transverse myelitis, optic neuritis (ON) and brainstem encephalitis. CNS IDD are potentially serious disorders with risks of mortality and significant disability. Typical relapsing forms of CNS IDD are relapsing remitting multiple sclerosis and relapsing NMO. Relapsing NMO is typified by recurrent longitudinally extensive transverse myelitis and severe unilateral or bilateral ON. Early diagnosis of CNS IDD is important as long-term treatment for different forms varies. Recognition of clinical, radiological and serological characteristics of different forms of CNS IDD facilitates early diagnoses. A significant proportion of NMO patients are seropositive for autoantibodies against aquaporin-4, the most abundant water channel in the CNS; this supports the hypothesis that NMO is an autoimmune disorder. Is NMO an autoantibody-mediated disorder sharing similar pathogenesis with myasthenia gravis (MG), a classical autoantibody-mediated autoimmune disease? An interesting observation is that paraneoplastic NMO associated various tumours is recognised recently, suggesting similarity with MG which is associated with thymoma in about 15 to 20% of patients.

Cognitive Impairment and Dementia in Chinese Parkinson's Disease

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Background: The incidence of dementia in Parkinson's disease (PD) among Caucasians varies between 42.6 and 112.5 per 1000 person-years. Since genetic and cultural factors may affect manifestation of dementia, incidence of dementia among Chinese PD patients may differ to that of Caucasian PD patients. We aimed to study the incidence and predictors of dementia among Chinese PD patients. To date, such data are not available in the literature.

Method: A total of 132 Chinese PD subjects (mean age 59.7 ± 9.1 years; male 67.4%) participated in this study. These subjects were participants of a clinical study.[1] At baseline, all subjects were not demented and Chinese mini-mental state examination (MMSE) score was obtained. We performed cognitive assessment 3.5 years later. We defined dementia according to the Movement Disorder Society Task Force Clinical Diagnostic Criteria for PD dementia.[2] We defined significant cognitive decline as a drop of MMSE score of ≥3. We investigated the association between putative baseline factors and incident significant cognitive decline and dementia.

Results: Nine subjects (6.8%; incidence rate of 20.0 per 1000 person-years) developed dementia and 29 (22%) subjects had significant cognitive decline at the end of follow-up. Multivariate analysis showed that age (odds ratio=1.4; 95% confidence interval, 1.01-1.28), speech impairment (6.5; 1.60-26.48), and impaired pentagon copying (11.29; 3.31-38.50) were independent predictors for incident significant cognitive decline and dementia.

Conclusion: Incidence of dementia in Chinese PD is lower compared with that in Caucasian PD. Age, speech impairment, and impaired pentagon drawing are predictors for incident significant cognitive decline and dementia.

References

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