

The Possibility of Using Somatosensory Evoked Potential(SSEP) as a Parameter for Cortical Vascular Dementia

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Abstract : As the rate of cerebrovascular disease increases in old populations, the prevalence rate of vascular dementia would be expected. Therefore, authors designed this study to find out the possibility of somatosensory evoked potentials(SSEP) as a parameter for early diagnosis and prognosis prediction of vascular dementia in cortical vascular dementia patients. 21 patients who met the criteria for vascular dementia according to DSM-IV, ICD-10 and NINDS-AIREN with the history of recent cognitive impairment, fluctuation progression, and neurologic deficit. We subdivided these patients into two groups; a mild dementia and a severe dementia groups by MMSE and CDR score; and analysed comparison between normal control group and patient control group who have been cerebrovascular attack(CVA) history without dementia by using N20 latency and amplitude of median nerve. In this study, mild dementia group showed significant differences on latency and amplitude with normal control group(p -value <0.05) except patient control group(p -value >0.05). Severe dementia group showed significant differences both normal control group and patient control group(p -value <0.05 , <0.001). Since no significant difference has founded between mild dementia group and patient control group, SSEP has limitation to use for early diagnosis test. However, the comparison between severe dementia group and others showed significant results which indicate SSEP can predict the prognosis of vascular dementia in cortical vascular dementia patients.

Keywords : SSEP, cortical vascular dementia, N20 latency, N20 amplitude

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