

Evaluation of P300 and CNV Changes in Patients with Essential Tremor

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Abstract : Essential tremor (ET) is one of the most common movement disorders and has long been considered a monosymptomatic disorder. While ET has traditionally been categorized as a pure motor disease, cross-sectional and longitudinal studies of cognition in ET have been demonstrated that these patients may have cognitive dysfunction. We investigated the neuro physiological aspects of cognition in ET, using event-related potentials (ERPs). Twenty patients with ET and 20 age-education and sex matched healthy controls underwent a neuro physiological evaluation. P300 components and Contingent Negative Variation (CNV) were recorded. The latencies and amplitudes of the P300 and CNV were evaluated. P200-N200 amplitude was significantly smaller in the ET group, while no differences emerged between patients and controls in P300 latencies. CNV amplitude was significantly smaller at Cz electrode site in the ET group. No differences were observed between in the two groups in CNV latencies. As a result, P300 and CNV parameters did not show significant differences between in the two groups, does not mean that there aren't mild cognitive changes in ET patients. In this regard, there is a need to further studies using electro physiological tests related to cognitive changes in ET patients.

Keywords : cognition, essential tremor, event related potentials

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