

Caracterização neurofisiológica e psicofisiológica de disfunções cerebrais utilizando estudos qEEG/ERP

Results:

The Project Objectives included the organisation of a brain signal data bank from healthy people to be used to define the normal cerebral response as a function of evoked or event related responses. We used electroencephalogram (EEG) and evoked potentials (EP) to record brain activity. The quantitative analysis of such signals include the parameterisation of variation of signal EEG changes previous to and consecutive to motor tasks (simple finger movements, fast and slow). The method we identify as the most convenient was the calculation of the EEG desynchronisation (ERD) previous to movement and EEG synchronisation (ERS), post movement. A normal response was defined and the methodology is now in reliable condition to be used to assess the brain function of patients (patients with cognitive impairment or other cerebral dysfunctions). Changes on cerebral function were also assessed using evoked responses. The P300 response was elicited by using the odd ball paradigm and we studied the stability of the responses in a short time interval of one week, in similar daily rhythm (morning/afternoon).

The results confirm the stability of the response and the methodology used to health people will be used on the same patients groups.

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