Quantitative electroencephalography power and coherence measurements in the diagnosis of mild and moderate Alzheimer's disease

Medidas de coerência e de potência absoluta no eletroencefalograma quantitativo no diagnóstico da doença de Alzheimer suave e moderado

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Authors' reply

Dear Editors,

We are grateful to Golimstok et al.[1] for their interest in our work[2], as also for the comments and questions they raised.

The fundamental question raised was: "*it is very difficult to explain a control group with significant lower education compared to Alzheimer's disease (AD) patients, mainly because this variable might affect on Mimi Mental State Examination (MMSE) and precisely, this instrument was used to differentiate cases from control group*".

We would like to present the following considerations on this question:

1. The diagnostic criteria were presented in the following way in our article: "*dementia according to the Diagnostic and Statistical Manual of Mental Disorders (DSM IV, 1994)[3], and the diagnosis of AD (slight or moderate stages) according to the criteria of the NINCDS/ADRDA (National Institute of Neurological and Communicative Disorders and Stroke and Alzheimer´s disease)[4]*".
2. MMSE should always be interpreted in the light of the educational level according to the criteria studied in our sphere[5], but is just one of the elements used in the characterization of dementia and Alzheimer's disease according to the diagnostic criteria used, as presented. These criteria are widely accepted for their validity, reliability and usefulness in research.

With respect to the score on the Hachinski scale, this was indeed used as a criterion for exclusion, score above 4 and not below, which was a typing error, as suggested by Golimstok et al.[1].

With respect to the relationship between depression and quantitative electroencephalography (qEEG) indicated by Pozi et al. (1995)[6], we must emphasize that the evaluation of factors involved in alterations on the qEEG was not an objective of our article; the basic objective was to evaluate its value in the differential diagnosis between AD and the controls. On the other hand, the presence of depression should not be an exclusion factor in the diagnosis of AD.

As pointed out by Golimski et al., the qEEG has attracted much research on its relationships with mild cognitive impairment and dementia.

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