Author's response to reviews

Title: Quantitative electroencephalography reveals different physiological profiles between benign and remitting-relapsing multiple sclerosis patients

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Author's response to reviews: see over
Dear Editor-in-Chief:

We are attaching a revised version of the manuscript titled “Quantitative EEG reveals different physiological profiles between benign and remitting-relapsing multiple sclerosis patients” by M. Vázquez-Marrufo, JJ González-Rosa, E. Vaquero, P. Duque, M. Borges, C. Gómez and G. Izquierdo where we have included corrections demanded by referee #1.

As recommended by editorial policy, we include a point-by-point response to the concerns:

Concerning the possible contribution of EMG:

The referee considered our first revised version satisfactory and proposed that our figure of ERPs (CNV modulation) was no longer necessary. Considering that a shortening of the manuscript length was proposed, we have removed this figure.

Concerning relative power not performed in this study:

We have tested the spectral modulations using relative power to verify the suggestions by the referee that there is a general increase in the power for multiple sclerosis patients or conversely, the increment is present in all bands but only statistically significant for beta and gamma bands. After this analysis we observed a specific increment for the beta and gamma bands.

This is the paragraph that we have included in the discussion section to point out this issue:

“Two additional analyses (omitted for brevity) were conducted related to this issue. In the first case, to discard the threat from muscle artefact, we analysed the temporal electrodes (T5 and T6) and no increase in beta and gamma bands was detected on them. On the other hand, another analysis was performed to check if the increase of the spectral modulations was present all along the bands or specifically in the high bands (beta and gamma). A relative power analysis of all the spectra indicated that only beta and gamma bands showed an increase for multiple sclerosis patients and the relative power of slow bands was higher in control subjects”.

We appreciate all these suggestions from referee #1 because we have improved our knowledge about the modulations in the spectral domain in multiple sclerosis patients.

Kind regards

Yours sincerely,

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