Author’s response to reviews

Title: Electroencephalographic Evaluation of Acoustic Therapies for the Treatment of Chronic and Refractory Tinnitus

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Editor's comments:

1) Your study protocol must be registered in an appropriate registry and the registration number and date of registration should be stated in this section. See our editorial policies for more information on trial registration: https://www.biomedcentral.com/getpublished/editorial-policies#trial+registration. The Trial Registration Number should be included at the end of the Abstract under the heading "Trial registration".

TRIAL REGISTRATION HAS BEEN UNDERTAKEN AND INFORMATION HAS BEEN ADDED AT THE END OF ABSTRACT AS:

TRIAL REGISTRATION

Registration Number: 74728

Date of Registration: August 20th, 2017

2) Please subdivide the main manuscript into the following headings: Background, Methods, Discussion.

MAIN MANUSCRIPT HAS ALREADY BEEN DIVIDED INTO THESE THREE HEADINGS: BACKGROUND, METHODS, DISCUSSION
3) After the List of Abbreviations, please include the heading "Declarations" followed by the following sub-headings:

DECLARATIONS HAVE BEEN INCLUDED AFTER LIST OF ABBREVIATIONS AS:

DECLARATIONS

Ethics Approval and Consent to Participate

Prior to commencing the study, ethical clearance was sought from the Ethical Committee of the National School of Medicine of the Tecnológico de Monterrey. The ethical clearance (CONBIOETICA19CEI00820130520) was obtained on June 20th 2016. When inviting the participants, the purpose of the research is clearly explained. On obtaining written informed consent from the patient, the experimental procedure takes place.

Consent to Publish

Not applicable. No private information of patients will be published.

Availability of Data and Materials

Once data collection has been concluded, data analysis will be carried out. Along with the first scientific publication concerning the data analysis, all the datasets will be published.

Competing Interests

Not applicable

Funding

In partnership with the National Council of Science and Technology (Mexico) and the Mexican Academy of Science, the present project attracted L’Oréal-UNESCO Organization as a sponsor on June 5th 2017.

Authors’ Contribution

LMAV and DIZ are responsible for the day-to-day management of the project, including data collection, recruitment of new volunteers, official notifications given to patients of project status, and data analysis. LMAV is also the leader in EEG signal analysis.

DIZ, FJTS, and MR are in charge of the design and generation of acoustic therapies. In particular, FJTS is specialist in binaural therapies. The investigation of acoustic therapies was started by MR, along with two of his research students: Crespo-Pelayo and Galvez-García. On the other hand, the project is part of the PhD thesis of FJTS that is directed by MR and DIZ.

MR and RARM are technical and research supervisors of the project.
Acknowledges

Special thanks to Laura Hernández-Gómez, who was responsible for the clinical supervision of the present protocol.

Authors’ Information

LMAV obtained the degree in Electronics Engineering from the Benemérita Universidad Autónoma de Puebla in 2004 in Mexico. Subsequently, LMAV received MSc in Bioelectronics from Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (Mexico) in 2007. Lastly, LMAV was awarded with PhD degree in Computing and Electronics Systems from the University of Essex (UK) in 2014. At present, LMAV conducts projects in line with electrophysiological signal analysis for developing assistive technology such as brain-machine interfaces. Her main interests and expertise concern EEG pattern recognition and physiological signal conditioning. LMAV recently received the prestigious award from L’Oréal-UNESCO foundation for women in science.

DIZ received the B.S. degree in Electrical and Communications Engineering from the Instituto Politécnico Nacional (Mexico City) in 2006. M.S. degree in Acoustics Engineering and Ph.D. degree in Acoustics from the Universidad Politécnica de Madrid (Spain) were received in 2010 and 2013, respectively. Currently, DIZ is a Research Professor of the National School of Engineering and Sciences at Tecnológico de Monterrey. His teaching and research areas include environmental acoustics, noise control and vibrations, signal processing, room acoustics, audio systems, and electroacoustic systems. One of his most important project is the one related to acoustic therapies for treatment neurological diseases.

FJTS is a PhD candidate in Acoustic Engineering, who holds a MSc in Telecommunication Engineering, a MBA and a violin teacher degree. He gained more than 10-years international experience as a Project and Contract Manager in the Aerospace and Augmented Reality Software industry. He is passionate about Neuroacoustics, Acoustic Therapies, Education, Innovation and Entrepreneurship.

RARM received his PhD degree in Automation from Grenoble Institute of Technology (France) in 1997 and his MSc degree in Control from the Tecnológico de Monterrey (Mexico) in 1991. He has published over 200 papers in journals and conferences, and he has mentored over 40 graduate students who occupy leading positions in academia and/or industry. He was President of Tecnológico de Monterrey, Mexico City Campus in 2014. Currently, he is Director of Research and is responsible for planning-coordinating-supervising all research activities.

MR is currently Emeritus Professor of Escuela Técnica Superior de Ingenieros Industriales de la Universidad Politécnica de Madrid. MR was Director of the research group in Instrumentación y Acústica Aplicada in 2007, and was professor in the Mechanical Engineering Department by the end of 2016. With more than 40 years of experience, MR founded in 2007 a new research field titled as “Acoustic Therapies”. In addition, MR founded the Neuroacoustics laboratory in 2016, which currently has seven main projects.