Author’s response to reviews

Title: Ultrasound Measurements versus Invasive Intracranial Pressure Measurement Method in Patients with Brain Injury: A Retrospective Study

Authors:

Jing Zhou (reepnx@163.com)
Jing Li (q5m3g1@163.com)
Tiantian Ye (niqez1@163.com)
Yanrong Zeng (YeddaGenevieveoJx@yahoo.com)

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Author’s response to reviews:

To,
Zhen Yuan, PhD
BMC Medical Imaging
https://bmcmedimaging.biomedcentral.com/

Dear Professor,

Thank you for your comments on our manuscript (BMIM-D-19-00123), titled Ultrasound Measurements versus Invasive Intracranial Pressure Measurement Method in Patients with Brain Injury: A Retrospective Study on 23 May 2019. We are very grateful to you and the reviewers' comments and thoughtful suggestions. Based on these comments and suggestions, we have made careful modifications to the original manuscript, and carefully proof-read the manuscript to minimize typographical and grammatical errors. We believe that the manuscript has been greatly improved and hope it has reached the BMC Medical Imaging Journal standard.

We acknowledge your comments very much, which is valuable in improving the quality of our manuscript.
Reviewer 1

Comment 1. The paper focused on the ultrasound measurement of Straight sinus flow velocities, middle cerebral artery flow velocities, and optic nerve sheath Diameter. However, throughout the whole paper, there was no related figure and It's difficult to understand how to measure related parameters.

Authors answer: In the revised manuscript, we have provided a figure for ultrasound measurements of the eye (Figure 1).

Comment 2. For ultrasound measurements, it's necessary to evaluate the intra-rater agreement. However, there were no related data in the article.

Authors answer: In the revised manuscript, we have evaluated the intra-rater agreement for ultrasound measurements (the Statistical analysis section, Reference No. 15).

Comment 3. One of the exclusions criteria is "inaccessible ultrasound windows", but there were no criteria about "accessible ultrasound windows". It will be better to state it clearly.

Authors answer: In the revised manuscript, we have provided accessible ultrasound windows (the Ultrasound measurements subsection of the Method section).

Comment 4. It's inappropriate to list the result like ")(r = 0.8717, p < 0.0001)" in part discussion.

Authors answer: In the revised manuscript, we have removed the ‘r’ value from the Discussion section (the first line of the third paragraph of the Discussion section).

Reviewer 2

Comment 5. In the Abstract section, under the subheading of background, the sentence-'.....ultrasound measurements in patients with brain injury underwent invasive intracranial pressure measurement method', is grammatically wrong and needs to be paraphrased.

Authors answer: In the revised manuscript, we have paraphrased the stated sentence (the Background subsection of the Abstract section).
Comment 6. In the Background section, the sentence' While imaging modalities with clinical examination would be preferred when invasive intracranial pressure measurement method is contraindicated' is grammatically wrong and needs to be paraphrased.

Authors answer: In the revised manuscript, we have paraphrased the stated sentence (the Background section).

Comment 7. 3. In the Results section, under the subheading of Enrollment, the sentence'..8 patients had on treatment that might affect cerebrospinal fluid pressure and 15 patients had intracranial pressure mean values were changed more than ± 2 mmHg during ultrasound measurements', is grammatically incorrect & needs to be paraphrased.

Authors answer: In the revised manuscript, we have paraphrased the stated sentences (the Enrollment subsection of the Results section).

Comment 8. The Discussion section is short and is just an expansion of Results and there is no comparison or justification of the Results.

Authors answer: In the revised manuscript, we have provided a comparison of the results with the other published citable materials and justification of the results (the Discussion section).

Comment 9. In the Conclusion section, there is no 'The' in the full form of 'STROBE'.

Authors answer: Implemented (List of Abbreviations).

We believe that the manuscript has been greatly improved and hope it has reached the BMC Medical Imaging Journal standard. However, in consideration of the BMC Medical Imaging Journal, acting in reviewing and editing our submission, the authors undersigned hereby transfer, assign, or otherwise convey all copyright ownership to the BioMed Central/ Springer Nature, in the event that such work is published in the BMC Medical Imaging Journal. The undersigned authors understand that if the manuscript is accepted, the Editors reserve the right to editorial revision.

We have welcomed your further comments if you have!

Thank you for your consideration.

Kindly acknowledge the same.
Yours sincerely,

Yanrong Zeng