

I honourably received the comments about my submitted manuscript for World Journal of Cardiology entitled:

“Autonomic laterality in caloric vestibular stimulation” NO.: 52099

The requested items and the related corrections are as follows:

Reviewer Number ID: 00506112:

Comment: The authors should include a short paragraph regarding the clinical or research implications of the finding of the study.

Answer and correction:

A short paragraph regarding the clinical or research implications of the finding of the study was included at the end of the discussion as follow:

This data may provide further clinical support regarding the cardiovascular safety of the 1-second-1-millilitre ice water caloric test. There is limited data about the safety of different methods of vestibular assessment including the caloric test in cardiovascular patients (39). The research implication of this data is introducing a model for studying the concept of the laterality of vestibulo-autonomic reflex. In contrast to microgravity methods or tilt test, the caloric test can provide specific data because it does not cause hemodynamic compensatory responses due to orthostasis. Therefore, adequate vestibular stimulation by irritation with more volume of cold water or in longer duration e.g., more than a few seconds may cause different results.

Reviewer Number ID: 00227375

Comment: Page 9, lines 3-5 I think, as for Table 2, the authors should describe whether the data is statistically significantly different between groups.

Answer and correction:

I added the reason of statistically significant difference that was observed between optimum and pessimum positions (Page 9, lines 3-5) in the second paragraph of discussion as follow:

The caloric test causes vestibular stimulation by indirect and direct mechanisms. The indirect or the main specific mechanism is the endolymph convection and is depended on the head position. The direct or the nonspecific mechanism is due to thermal changes in the activity of vestibular afferents and is independent of the head position. The pessimum position puts the horizontal semi-circular ducts in the horizontal plane and eliminates the effect of gravity on endolymph convection. Therefore it is used as a type of self-control verification for induction of specific vestibular stimulation; which is only inducible for horizontal semi-circular duct in optimum position. The duration of nystagmus in the optimum position was more than pessimum position in both sides and had significant differences ($P < 0.01$). This finding was expect and indicated a proper vestibular stimulation by the 1-second-1-millilitre ice water caloric test.

Thank you very much for your consideration.

Best Regards

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