

Open peer review report 1

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Comments to the authors:

This study investigated the protective effect of water electrolysis derived-high concentration hydrogen gas (60%) in a rat model of asphyxia induced-cardiac arrest and global brain hypoxia-ischemia. Pre- & post-treatment and post-treatment were compared to find a better one for clinical therapy.

However, Here are several questions for this study.

1. The groups should be reconsidered in this study. Due to the changed condition, there should be a post-treatment group in Experiment II, although no difference was found between 9-minute hydrogen-treated groups.
2. There were too few rats in this study. The evidences just stayed at individual level, so enough samples were needed. Conclusion cannot be got easily without proper sample size, especially in the Experiment II.

This study has some concerns. So, I recommend considering after major changes for this manuscript.