

highlighted the revised/added contents with yellow color in the revised manuscript.

Reviewer #1:

**Scientific Quality:** Grade B (Very good)

**Language Quality:** Grade B (Minor language polishing)

**Conclusion:** Minor revision

**Specific Comments to Authors:** The study is aimed to compare the neuroprotective effects of dexmedetomidine and propofol for sedation during prolonged mechanical ventilation in patients without brain injury. The title is "Brain protective effect of dexmedetomidine vs propofol for sedation during prolonged mechanical ventilation in non-brain injured patients".

1. Why did the authors use serum S100-  $\beta$  and neuron-specific enolase (NSE) levels for the primary outcomes? Please add more details.

**Reply:** Thanks. NSE is an acidic protein widely found in nerve tissue, found in very small amounts in serum and cerebrospinal fluid. S100-  $\beta$ , also known as the specific protein of the central nervous system, it is mainly distributed in glial cells and Schwann cells. Currently, these two biomarkers have been widely used for the assessment of brain injury.

2. Several factors influence the outcome of the study. Please discuss these.

**Reply:** Thanks. At the last paragraph of the discussion section, we have discussed the factor that can influence the outcome of the study.

3. Please add more details of the pharmacology of dexmedetomidine for the neuroprotective effects.

**Reply:** Thanks. In the third paragraph of the discussion section, we have added more details of the pharmacology of dexmedetomidine for the neuroprotective effects.

4. Please review the literature and add more details in the discussion section.

**Reply:** Thanks. As your suggestion, we have added more details of the pharmacology of dexmedetomidine for the neuroprotective effects.

5. What is the new knowledge of the study?

**Reply:** Thanks. The new knowledge of the present study was that Dexmedetomidine has a stronger protective effect on the brain than propofol for long-term mechanical ventilation in patients without brain injury.

6. Please recommend to the readers "How to apply this knowledge?".

**Reply:** Thanks. For readers, especially for doctors in ICU, compared to propofol, long-term mechanical ventilation for non-brain injury patients who choose to use dexmedetomidine for sedation and analgesia is more beneficial for protecting the brain.

## EDITORIAL OFFICE'S COMMENTS

Authors must revise the manuscript according to the Editorial Office's comments and suggestions, which are listed below:

### ***(1) Science editor:***

发件人: Somchai Amornyotin 主题: ตอบกลับ: [!!Spam]World Journal of Psychiatry Manuscript NO: 89035 - Manuscript review canceled 日期: 2023 年 11 月 15 日(周三) 19:10 收件人: BPG Editorial Office Dear Sir I apologize for this late response. Here is my review of this "Brain protective effect of dexmedetomidine vs propofol for sedation during prolonged mechanical ventilation in non-brain injured patients". Regards, Dr. Somchai Amornyotin

### ***(2) Company editor-in-chief:***

I have reviewed the Peer-Review Report, full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Psychiatry, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors. Before its final acceptance, please provide and upload the following important documents: Biostatistics Review Certificate, a statement affirming that the statistical review of the study was performed by a biomedical statistician; Signed Informed Consent Form(s) or Document(s), the primary version (PDF) of the Informed Consent Form that has been signed by all subjects and investigators of the study, prepared in the official language of the authors' country; STROBE Statement, an important document related to manuscript writing of observational/case control/retrospective cohort studies. The quality of the English language of the manuscript does not meet the requirements of the journal. Before final acceptance, it is recommended that the authors provide the English Language Certificate issued by a professional English language

editing company. Please visit the following website for the professional English language editing companies we recommend: <https://www.wjgnet.com/bpg/gerinfo/240>. Before final acceptance, uniform presentation should be used for figures showing the same or similar contents; for example, "Figure 1 Pathological changes of atrophic gastritis after treatment. A: ...; B: ...; C: ...; D: ...; E: ...; F: ...; G: ...". Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor. In order to respect and protect the author's intellectual property rights and prevent others from misappropriating figures without the author's authorization or abusing figures without indicating the source, we will indicate the author's copyright for figures originally generated by the author, and if the author has used a figure published elsewhere or that is copyrighted, the author needs to be authorized by the previous publisher or the copyright holder and/or indicate the reference source and copyrights. Please check and confirm whether the figures are original (i.e. generated de novo by the author(s) for this paper). If the picture is 'original', the author needs to add the following copyright information to the bottom right-hand side of the picture in PowerPoint (PPT): Copyright ©The Author(s) 2023. Authors are required to provide standard three-line tables, that is, only the top line, bottom line, and column line are displayed, while other table lines are hidden. The contents of each cell in the table should conform to the editing specifications, and the lines of each row or column of the table should be aligned. Do not use carriage returns or spaces to replace lines or vertical lines and do not segment cell content. Please upload the approved grant application form(s) or funding agency copy of any approval document(s). The author(s) must include the keywords "stress response", "anxiety", "cognitive function", etc., in the keyword list.

## **ABBREVIATIONS**

In general, do not use non-standard abbreviations, unless they appear at least two times in the text preceding the first usage/ definition. Certain commonly used abbreviations, such as DNA, RNA, HIV, LD50, PCR, HBV, ECG, WBC, RBC, CT, ESR, CSF, IgG, ELISA, PBS, ATP, EDTA, and mAb, do not need to be defined and can be used directly.

The basic rules on abbreviations are provided here:

**(1) Title:** Abbreviations are not permitted. Please spell out any abbreviation in the title.

**(2) Running title:** Abbreviations are permitted. Also, please shorten the running title to no more than 6 words.

**(3) Abstract:** Abbreviations must be defined upon first appearance in the Abstract. Example 1: Hepatocellular carcinoma (HCC). Example 2: *Helicobacter pylori* (*H. pylori*).

**(4) Key Words:** Abbreviations must be defined upon first appearance in the Key Words.

**(5) Core Tip:** Abbreviations must be defined upon first appearance in the Core Tip. Example 1: Hepatocellular carcinoma (HCC). Example 2: *Helicobacter pylori* (*H. pylori*)

**(6) Main Text:** Abbreviations must be defined upon first appearance in the Main Text. Example 1: Hepatocellular carcinoma (HCC). Example 2: *Helicobacter pylori* (*H. pylori*)

**(7) Article Highlights:** Abbreviations must be defined upon first appearance in the Article Highlights. Example 1: Hepatocellular carcinoma (HCC).

Example 2: *Helicobacter pylori* (*H. pylori*)

**(8) Figures:** Abbreviations are not allowed in the Figure title. For the Figure Legend text, abbreviations are allowed but must be defined upon first appearance in the text. Example 1: A: Hepatocellular carcinoma (HCC) biopsy sample; B: HCC-adjacent tissue sample. For any abbreviation that appears in the Figure itself but is not included in the Figure Legend textual description, it will be defined (separated by semicolons) at the end of the figure legend. Example 2: BMI: Body mass index; US: Ultrasound.

**(9) Tables:** Abbreviations are not allowed in the Table title. For the Table itself, please verify all abbreviations used in tables are defined (separated by semicolons) directly underneath the table. Example 1: BMI: Body mass index; US: Ultrasound.

#### **4 LANGUAGE POLISHING REQUIREMENTS FOR REVISED MANUSCRIPTS SUBMITTED BY AUTHORS WHO ARE NON-NATIVE SPEAKERS OF ENGLISH**

As the revision process results in changes to the content of the manuscript, language problems may exist in the revised manuscript. Thus, it is necessary to perform further language polishing that will ensure all grammatical, syntactical, formatting and other related errors be resolved, so that the revised manuscript will meet the publication requirement (Grade A).

**Authors are requested to send their revised manuscript to a professional English language editing company or a native English-speaking expert to polish the manuscript further. When the authors submit the subsequent polished manuscript to us, they must provide a new language certificate along with the manuscript.**