Reviewer’s report

Title: Effects of bupivacaine or levobupivacaine on cerebral oxygenation during spinal anesthesia in elderly patients undergoing orthopedic surgery for hip fracture. A randomized controlled trial

Version: 1 Date: 12 Dec 2018

Reviewer: Research Square

Reviewer’s report:

"STATISTICAL REVIEWER ASSESSMENT:

Is the study design appropriate for the research question (considering whether the analyzed population accurately reflects the design and whether you see any problems with control/comparison groups, e.g., likely confounders)?

No - there are minor issues

Are methodologies adequate and well implemented (considering whether assumptions are addressed and whether analyses are robust)?

Yes - methodologies are adequate and well implemented, assumptions are addressed, analysis is robust

Are the analyses adequately communicated (considering whether reporting details are adequate and whether figures and tables are well labeled and described)?

Yes - important reporting details are present, analyses are adequately communicated, figures and tables are well labeled and described

Does the interpretation accurately reflect the analyses without overstatement (considering whether limitations/bias are acknowledged and whether accurate descriptors, e.g., 'significant', are used)?

Yes - interpretation accurately reflects analyses, limitations/bias are acknowledged, accurate descriptors are used

Could an appropriately REVISED version of this work represent a statistically sound contribution?"
Yes - current version has sound statistics

STATISTICAL REVIEWER COMMENTS:

Overall the study seems to be rather well-planned and executed.

The statistical methods seem appropriate and well-executed.

However, the authors declare their study to be an open-label trial, yet proclaim that patients and investigators looking at the postoperative SPMSQ questionnaire were blinded. Technically, this makes the study, at least a single blind study and not an open label trial.

REQUESTED REVISIONS:

The authors need to look at whether they want to project the study as an open label trial, because technically it isn’t, since they have blinded patients and the investigators who have looked at the postoperative SPMSQ questionnaire.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:
Acceptable

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