Reviewer’s report

Title: Effect of interscalene block on intraocular pressure and ocular perfusion pressure

Version: 0 Date: 20 Jun 2017

Reviewer: Gianluca Cappelleri

Reviewer's report:

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The authors performed a study to detect if the interscalene block decreases the IOP and OPP. Description of methods is confused. In the text there is no notice about general anesthesia, but in TAB2 they provide the ETCO2. Moreover, evaluations start 5 minutes after ISB but the onset was defined at 15 minutes. If general anesthesia was provide, which was the true starting point for the evaluations? Even the discussion should be revised in order to target with the aims and the reasons to perform the study.

Specific comments:

Methods:
- P4 L95: "30 patients", Please use letters at starting the sentence, not number.
- P4 L97: Was surgery open or arthroscopy?
- P4 L102: which drugs? Had you established before which were the drugs that could increase IOP?
- P4 L109: The author stated that all three major twich were searched but injection was made between C5 and C6 roots. Description of the block seems confused please revise.
- P5 L113: Block successful was defined by only the ice test? In my experience an ISB achieved with 30 ml of LA should provide a motor block as well.
- P5 L118: Who performed all evaluations? Did an oculist measure IOP? Did you achieve a baseline data before ISB? Evaluations took 60 minutes? Were made before surgery? Did you perform General anesthesia during surgery or only ISB?
- P5 L124: It is not very clear to me how all evaluations were achieved. Was the nurse to detect IOP, MAP etc? Thes measurement were achieved before the ISB was established (5th, 10th minutes after block). Meanwhile, who performed the ice test to detect interscalene sensory block? Moreover, IOP measure was bilateral? Please a clarification is need.
- P5 L139: sample size: I'm not able to verify the sample. In which evaluation point you consider 0.2 mm hg of difference significant? Please report also the SD.

Discussion: This section should be revised in order to give more strength to the aim of the study. It is difficult catch the reason to perform the study. An important limit is that it is difficult understand what was the true aim: is the ISB or is the Horner Syndrome the cause of the change in IOP? This is crucial because the Horner S. is typically due to a larger volume of LA with cranial spread. Ultrasound allowed a dramatic reduction in LA volume during interscalene block. In my practice I don't use more than 15 ml of LA and Horner S. is a sporadic event. The authors achieved a 100% of Horner S. that not reflect the modern ultrasound practice. This issue should be better discussing.

P7-8L from 195 to 224. This paragraph is redundant and not relevant in the study.

P9 L240: It is worth to discuss how not only beach position but also especially some surgeon requires dangerous hypotension during shoulder arthroscopy.

P9 L256: The lack of use of epinephrine is no a limit, please delete.

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

No

**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 recommend additional statistical review

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

Needs some language corrections before being published

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None

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