

PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Cases

Manuscript NO: 42131

Title: The effect of clonidine on the cutaneous silent period during spinal anesthesia

Reviewer's code: 02484487

Reviewer's country: Saudi Arabia

Science editor: Ying Dou

Date sent for review: 2018-09-10

Date reviewed: 2018-09-16

Review time: 6 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input checked="" type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	polishing	<input checked="" type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input checked="" type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

Clonidine has been used to prolong the effect of SAB but this article has measured cutaneous silent period(CSP) and CSP latency during block regression after SAB which gives an added information regarding the use of clonidine. Further studies can be done to highlight the effect of clonidine. Effects on MAP and heart rate are not significant but



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VAS over 24hrs was also significant. In my opinion this is an interesting article with the collaboration of neurology faculty. This can be published

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ No

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PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Cases

Manuscript NO: 42131

Title: The effect of clonidine on the cutaneous silent period during spinal anesthesia

Reviewer's code: 00504975

Reviewer's country: Saint Kitts and Nevis

Science editor: Ying Dou

Date sent for review: 2018-09-25

Date reviewed: 2018-10-02

Review time: 6 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input checked="" type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
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			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

This is an interesting study that assessed the effect of adding clonidine to a subarachnoidal block with levobupivacaine on the cutaneous silent period and its latency in patients scheduled to inguinal repair. Not surprisingly, the Authors found that levobupivacaine plus clonidine shortened the CSP and prolonged its latency in

comparison to levobupivacaine alone. Although the results from this study could contribute to the field of CSP, I have some concerns with the way that the results were analysed and the manuscript is presented. Please refer to the points below for specific details.

Abstract In the Methods section, please include the dose rate of levobupivacaine and clonidine administered to the patients. In the Results section, you need to mention that only data from 30 patients in each group were analysed. In the Conclusion section, you need to mention that these observations with levobupivacaine and clonidine were in comparison with levobupivacaine alone.

Core tip What is the relevance of the statement “Duration of the CSP and its latency are altered in polyneuropathy and various diseases of the central nervous system” for you study? Consider deleting it.

Introduction Please rephrase the sentence “Clonidine exerts its analgesic effect via A δ , C-fibres and substantia gelatinosa of the spinal medulla, however, considering that its analgesic effect is the strongest after intrathecal administration, it is deemed that the primary effect site of the action of clonidine is the spinal medulla[11,12].” You are taking about the site of analgesic action for clonidine, but by mentioning ‘Clonidine exerts its analgesic effect via’ you making sounds as if you were taking about its mechanism of action. Also, please change ‘spinal medulla’ for ‘spinal cord’. Please rephrase you primary hypothesis. As it reads, it is difficult to understand what you tried to assess. This would be a good place to include your hypotheses; please provide them.

Materials and methods The M&M section would benefit from deletion of repetitive material (repeating other sections) and could use significant tightening up. A few examples are provided below.

- The sentence “The day before surgery, all included patients were referred to the department of neurology where a blinded neurologist conducted a primary measurement of CSP and its latency with an EMG device (Medelec Sinergy, UK)” would be better in the “Cutaneous silent period measurements” section.
- The information on levobupivacaine and clonidine is

repeated within the same (very long!) paragraph in the “Study flow and anesthesia procedure” section. Please combine this information. - “...recorded the pain intensity using a visual analogue scale (VAS) scale (0-10, 0 no pain, 10 maximum pain)” would be better in the section “Pain intensity assessment using VAS” - “and the instructions for software

support(G*Power3.1manual,http://www.gpower.hhu.de/fileadmin/redaktion/Fakultaeten/Mathematisch-Naturwissenschaftliche_Fakultaet/Psychologie/AAP/gpower/GPowerManual.pdf). Analysis was carried out with the software support of G*Power for Windows, version 3.1.” Please combine this into one sentence. Please provide the manufacturer’s details for the pulse oximetry finger probe used. Please specify how HR and MAP were measured. “...estimated the motor block regression as Bromage 0 (ability to move the legs at the hip, knee and foot) while the sensory block was still present”. As it reads, it seems that the anaesthesiologist scored motor block as zero in the Bromage scale rather than assessed motor block. Please rephrase. Please add details of how long the VAS line was. It seems that ketoprofen and tramadol were diluted and given as a constant rate infusion. Please provide details of the rate of infusion for these drugs. Consider changing “lying supine” by “lying horizontally” or “in the supine position”, and “big toe” for “hallux”. Please provide details on how “the duration of an individual stimulus was gradually increased to 1 ms.” How was this gradual increase carried out, what was the rate of increase? In “The measurement was repeated up to 10 times in 30 seconds intervals and an arithmetic mean (of) three best measurements (complete EMG silence and longest duration of CSP) was calculated” consider removing the brackets and incorporating the information within them into the sentence. The statement “Sample size consideration was made due to the presumption of a previously published similar study...” needs a reference. In “Quantitative values are shown through”, please change “through” by “as”. It is not clear what comparisons were

made with the different statistical analyses described in your manuscript. Please reword this section and make sure you have used appropriate statistical tests for your study. From what it is described in the “Statistical analysis” section and information at the bottom of Table 2, it seems that you used a two-way RM-ANOVA and various t-tests to analyse your data on CSP and CSP latency. For this a two-way RM-ANOVA followed by Bonferroni correction should have been appropriate. Why did you report that RM-ANOVA was used and then various t-tests performed? Also, “All relevant data from RM-ANOVA analyses and least squares means (LS-means) with standard errors (SE) were computed for each effect.” Why was this done? What is the clinical relevance of it? Wouldn't suffice with analysing the individual data points specified in the study? Alternatively, if the overall effect across time would be of interest, AUC values should have been computed for each variable and AUC values analysed. By only analysing the means and not considering time, this analysis seems irrelevant. Results Please rephrase the first sentence. It was somehow mentioned in M&M that 67 patients were enrolled (although it should be better stated) and there is no need to repeat it in the Results. Mention here that 4 and 3 patients from the LC and L groups, respectively, were excluded from the trial and that only 30 patients per group were included in the analysis. There is no need to include Figure 1; consider deleting it. There is mention of a “Mann Whitney U test” here, but not in the “Statistical analysis” section. Please amend Consider deleting “Data regarding CSP and latency of CSP before, during and after spinal analgesia are shown in Table 2.”, it is not needed. In the sentence “There were no significant differences between investigated groups preoperatively and after 24 hours” you need to specify what parameters were not significantly different. The second paragraph in the “Results” section is too long and mainly repeats what is summarised in Tables 2, 3 and 4. This whole paragraph needs to be reworded while omitting repeating exactly what it can be seen in Tables 2, 3 and 4. Alternatively, these tables could be

deleted although I believe that these types of results are easier to read, compare, and contrast from a Table than from the main text. Similarly, Figure 2 is not needed as it repeats the same information already presented in Table 2. Again, the “Summarized results from repeated measures ANOVA” seem irrelevant and should be omitted.

Discussion As for the M&M section, the Discussion, particularly the section on CSP and CSP latency, could use significant tightening up. In “The results of the first measurement of CSP and latency were similar between groups, which is suggestive of adequate patient selection”, “randomisation” rather than “selection” would describe this situation. Please delete “CSP of the L group in the first measurement in this study was $62.1 \text{ ms} \pm 9.5$, while in the LC group measured $61.3 \text{ ms} \pm 6.2$. The latency in the L group in the first measurement was $108.2 \text{ ms} \pm 11.6$, and in the LC group was $107.2 \text{ ms} \pm 11.6$.” These are results and do not add anything to your discussion. “Until now, the CSP has never been measured during neuraxial intrathecal block or after intrathecal administration of clonidine.” Was this something that motivated the study? If so, it should be included in the Introduction.

Research results Again, what is the relevance of reporting “24-hour period” results when only mean values were considered and time was obviated at all?

Research conclusion Please replace “local anesthetics” by “levobupivacaine”.

References Ref. 9. Journal title should be “Essays” not “Esseys”. Ref. 10. Journal title should be “Anaesthesiol” not “Anesthesiol”. Ref. 22. Manuscript title should be in “Sentence case” not “Title Case”.

Figures Figure 1 and 2 are not needed. Consider deleting them. Figure 3 and 4. Please provide enough information in the figure legends so that the readers can fully understand what was done without the need to refer back to the main text.

Tables As for figure legends, please provide enough information in the table titles legends so that the readers can fully understand what was done without the need to refer back to the main text. Table 1. Although intuitive that for gender the remainder of participants were female, it is not possible to

know without referring to the main text that the ASAPS for the remainder of the patients was 1. Please include these data in the table. Table 2. The repetitive use of “Mean \pm SD” is not needed. Please include this information in the table title. Also, please report meaningful comparisons. These should be within group across time and between groups at the same time point. For this RM-ANOVA followed by Bonferroni correction should have been used. Why did you report that RM-ANOVA was used and then various t-tests? Table 3. As for Table 2, the repetitive use of “Mean \pm SD” is not needed. Please include this information in the table title. Table 4. As explained before, these results seem irrelevant and do not represent what happened during the 24 hours of assessments in this study. Please delete this table.

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