

Point by point response to reviewers

Manuscript title: Comparison of perceived pain and patients' satisfaction with traditional local anesthesia and STA: A Randomized Clinical Trial.

Manuscript No: World Journal of Clinical Cases Manuscript NO: 48482 -Manuscript revision

	Reviewer's comment	Response	Page Number/Line Number
	Reviewer #1		
1	The title should show the full description of the device rather than abbreviation (STA).	The title has been changed to: Comparison of perceived pain and patients' satisfaction with traditional local anesthesia and <b>Single Tooth Anesthesia</b> (STA): A Randomized Clinical Trial.	p. 1 line 4
2	The study is similar to Campanella reference	<ul style="list-style-type: none"> <li>• In our study, we measured the effectiveness of anesthesia through electric pulp testing (objective evaluation), and patient satisfaction through a questionnaire.</li> <li>• Conventional anesthesia group of Campanella study were subjected to both local infiltration and inferior alveolar nerve block in contrast to our study where the traditional anesthesia group was only administered local infiltration (more standardization)</li> <li>• The anesthetic agent used in our study was 2% lidocaine with 1:100,000 epinephrine in contrast to 4% articaine with 1:200,000 epinephrine employed in Campanella study. This is to demonstrate the effectiveness of 2% anesthetic agent.</li> </ul>	<p>p. 6 line 28</p> <p>p. 7 line 16; p.10 line 1</p>

		<ul style="list-style-type: none"> <li>In addition, as pain threshold has both physiologic and psychological components, cultural differences between population groups in our study and Campanella study had minimal impact on the effectiveness of Single tooth anesthesia.</li> </ul>	p. 7 line 4
4	Author should elaborate a clear hypothesis, what is the new compared to Campanella	<ul style="list-style-type: none"> <li>The present study was conducted with a hypothesis that STA is as equivalent to traditional local anesthesia in reducing the pain associated with routine dental procedures.</li> </ul>	p. 5 line 21
3	Campanella study is Cross over study on 80 patients. Considering the patient is his own control with one week interval this will be 160 patients divided in 2 groups. The author on the other hand used controlled study 40 in each group.	<ul style="list-style-type: none"> <li>Cross over study using the split mouth design was not considered to avoid the possibility of patients' bias towards the treatment rendered. Moreover, the experiment cannot be blinded. Since these factors might affect the results, we opted not to subject the same patient to two different techniques of anesthesia.</li> </ul>	
5	A sample size calculation is needed.	<ul style="list-style-type: none"> <li>When the present study was designed, literature review did not reveal much studies published on this topic. Hence, as a thumb rule for clinical trials, a sample size of 30 in each group was found to be sufficient. However, it was further increased to 40 in each group.</li> </ul>	
6	And the author needs to elaborate on limitations /advantages of cross over study versus randomized control study.	Elaborated in the discussion	p. 9 line 23
7	STA patients had a significantly higher heart rate during	Explained in discussion	p. 10 line 21

	<p>anesthesia, however, a statistically significant difference was noted among the traditional anesthesia and the STA groups even before anesthesia.</p>		
8	<p>During the restorative procedure, Baseline heart rate compared to post anesthesia HR should be statistically compared for Intragroup significance.</p>	<p>Although there was a statistically significant increase in post anesthesia heart rate in the STA group when compared to the baseline level (<math>p &lt; 0.05</math>), this increase was not clinically significant. The heart rate increased from a mean of 81.28 (before anesthesia) to 84.83 beats per minute (after anesthesia), which was well within normal limits. On the other hand, there was no statistically significant difference in the infiltration group.</p>	