



A response for Effect of intraosseous injection versus inferior alveolar nerve block as primary pulpal anesthesia of mandibular posterior teeth with symptomatic irreversible pulpitis: a prospective randomized clinical trial

Sir,

This letter is in response to the letter by Dr. Collier. We would like to thank you for the opportunity to respond to this letter. We also thank Dr. Collier for his interest in our recent article: Effect of intraosseous injection versus inferior alveolar nerve block as primary pulpal anesthesia of mandibular posterior teeth with symptomatic irreversible pulpitis: a prospective randomized clinical trial. *Acta Odontologica Scandinavica*, DOI: [10.1080/00016357.2018.1428826](https://doi.org/10.1080/00016357.2018.1428826).

Responses are as follows:

1. We thank Dr. Collier for presenting the older history of intraosseous anesthesia and introducing a new intraosseous anesthetic technique for cases with high thickness of the buccal cortical plate.
2. The exclusion of participants with unsuccessful IANB technique of injection (lack of profound lip numbness) was based on similar clinical trials [1–5].
3. As acknowledged by Dr. Collier, the intraosseous injection point was at distal of the tooth being treated (Materials and methods section).
4. We thank Dr. Collier for introducing two additional studies comparing IANB and primary intraosseous anesthesia [6,7]. However, we were not able to access these studies because they were not in English.
5. Regarding the choice of 3% mepivacaine (Scandinibsa 3%, Lica de vall, Barcelona, Spain) the following points are presented:
 - a. Plain mepivacaine was used to control the potential undesirable effects of epinephrine on cardiovascular parameters and also the anesthetic efficacy of mepivacaine as an alternative to lidocaine with epinephrine was evaluated.
 - b. Previous studies have indicated that lidocaine with epinephrine can increase the heart rate and blood pressure after intraosseous anesthesia [8–10]. This increased heart rate and possible increase in blood pressure (even for a short period of time) can induce stress and anxiety in the patients or elevate the existing level of stress and anxiety of the patients. As a result, the release of endogenous epinephrine is increased which can exasperate the cardiovascular changes. Therefore, inadequate analgesia is not the only reason for increased level of endogenous epinephrine and obviously many other factors may be involved.
 - c. Plain mepivacaine can be considered as a potential alternative to be used in patients where the use of vasoconstrictors is not indicated.

Disclosure statement

No potential conflict of interest was reported by the authors.

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